HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

December 17, 1990

No. P 127 153 521
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39289-0385

Dear Mr. Diab:

Re: NPDES Permit No. MS0001830

We have received your 12/11/90 letter addressing compliance sampling inspection and appreciate the opportunity to comment.

As you know, we split samples with the State during compliance sampling inspections. Our split sample for Phenol was sent to an independent laboratory for analysis. The Phenol results reported was 0.125 mg/l which is 1.0 lbs/day and well below the 4.9 lbs/day permit limitation.

If I can answer any questions to help resolve this difference please call me at 601-545-3450.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:sj
1001sj-20

cc: Pete McGarry
US-EPA Region IV, Atlanta

Paul Fetterholm
Bureau of Pollution Control, Jackson

P. W. Kirkendall

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

December 14, 1990

No. P 127 153 510
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for November 1990.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:sj
1001sj-12

Attachments

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

September 17, 1990

No. P 814 346 294
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Phillip Bass
MS Bureau of Pollution Control
101 Turn Powe Plaza
Jackson, MS 39208

Dear Mr. Bass:

Re: NPDES Permit No. MS0001830

Please find the following attachments in response to DMR-QA study number 010.

If I can answer any additional questions please call me at 601-545-3450.

Very truly yours,

C. S. Jordan
Environmental Supervisor

CSJ:sj
1001sj-3

cc: Don Spence

Attachments

PERFORMANCE EVALUATION REPORT

DATE: 7/ 6/90

DMR-QA STUDY NUMBER 010

RMITTEE: MS0001830 HERCULES INCORPORATED IC

IALYTES	V P	REPORT VALUE	TRUE VALUE*	ACCEPTANCE LIMITS	WARNING LIMITS	PERFORMANCE EVALUATION
MISCELLANEOUS ANALYTES:						
H-UNITS		8.5	8.50	8.19- 8.84	8.27- 8.76	ACCEPTABLE
Corrected Calculation Feb 5-9,3						
)TAL SUSPENDED SOLIDS (N MG/L)		296.5	60.0	48.5- 62.0	50.2- 60.3	NOT ACCEPTABLE
IL AND GREASE (N MG/L)		5.7	10.0	3.51- 15.2	4.97- 13.8	ACCEPTABLE
DEMANDS IN MILLIGRAMS PER LITER:						
OC		21.0	20.2	16.9- 24.2	17.8- 23.2	ACCEPTABLE
-DAY BOD		34.5	33.2	18.9- 47.4	22.5- 43.9	ACCEPTABLE
ADDITIONAL MISCELLANEOUS ANALYTES:						
OTAL PHENOLICS (N MG/L)		0.22	0.531	0.287-0.795	0.351-0.731	NOT ACCEPTABLE

BASED UPON THEORETICAL CALCULATIONS, OR A REFERENCE VALUE WHEN NECESSARY.

TOTAL SUSPENDED SOLIDS

QTE 2-21
1006
0921
0885 X1000 X1000 / 100 (10) = 85

TTE
0944
0913
0931 X1000 X1000 / 100 (10) = 31

DUER
0365
0923
0442 X1000 X1000 / 250 (4) = 177

6
1041
0912
0929 X1000 X1000 / 100 (10) = 129

EPA 2.22.90
1220
0919
0301 X1000 X1000 / 100 (10) = 301.0

(MK)
1202
0910
0292 X1000 X1000 / 100 (10) = 292.0

296.5

8/27/90 Note
the analyst divided by 100 ml instead of 500 ml as you can see above. Corrected values are 60.2 and 58.4 for an average of 59.3 mg/L

CULPEPPER TESTING LABORATORIES

Air and Water Analyses

205 SOUTH MAIN STREET TELEPHONE 601 583-0411

HATTIESBURG, MISSISSIPPI 39401

September 14, 1990

Mr. Don Spence
HERCULES, INC.
Hattiesburg, MS 39401

RE: Phenol Results
EPA Study DMR 10

Dear Mr. Spence:

Per your request, I have reviewed our data pertaining to the Phenol concentration determination in the above-referenced study and did, indeed, find an error.

The value reported to you was that of absorbence of the 4-AAP derivative and not the extrapolated value. Our true value that should have been submitted was 0.489 ppm.

Should, after your perusal, you require additional information, please do not hesitate to call.

Sincerely,

T.J. CULPEPPER, Ph.D.
President

TJC/smb

HERCULES

Interoffice Memo

November 14, 1990

No. P 127 153 504
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for October 1990.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:sj
1001sj-12

Attachments

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

Forrest County
MS 0021830
Hattiesburg, MS.

November 1, 1990

No. P 127 153 503
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached are the results from our Fourth Quarter 1990 Static Bioassay. The 96 hour LC-50 Application Factor in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
55

Attachment

cc: P. W. Kirkendall - W/O Attachments

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

October 8, 1990

No. P 814 346 300
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached are the results from our Third Quarter 1990 Static Bioassay. The 96 hour LC-50 Application Factor in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
55

Attachment

cc: P. W. Kirkendall - W/O Attachments

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

October 19, 1990

No. P 127 153 501
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for September, 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachment

PHONE CONVERSATION RECORD

Talked with CHARLES JORDAN Date 9/26 Time 9:30 a.m. p.m.

Of HERCULES (Company) Phone No. 5453450

Re LEAD ANALYSIS OF SULFURIC ACID BY-PRODUCT

☒ I placed call ☐ Party called

My ☐ message ☐ reply REQUESTED INFORMATION ABOUT LEAD CONCENTRATIONS IN ACID THAT HERCULES IS PLANNING TO SELL TO (LEAF RIVER) GEORGIA PACIFIC IN NEW AUGUSTA

Party's ☐ message ☒ reply ANALYSIS IS BEING PERFORMED ON ACID W/ ANALYSIS ON LEAD. TRIAL FOR G.P. WILL USE A TANK TRUCK FROM HERCULES CONTAINING SULFURIC ACID. AS REQUESTED, PERMISSION TO GO AHEAD W/ SCALE-UP TRIAL PRIOR TO RESULTS OF ANALYSIS WAS GIVEN— BASED ON HERCULES HAS USED IT AS PH ADJUSTMENT OF WASTEWATER. W/ NPDES PERMIT TESTING REQUIRED FOR REISSUE

Action or follow-up necessary

ANALYSIS OF SULFURIC ACID BEING SENT TO LEON'S LAWALLEE (INDUSTRIAL WASTEWATER SECTION CHIEF, NPDES)

Refer to ☒ File Signed

10/30/90
RESULTS OF ANALYSIS STILL NOT IN, MR JORDAN WILL SEND DATA TO MR LAWALLEE ATTENTION AS SOON AS HE RECEIVES IT

1/2/91
RESULTS ARE IN AND WILL BE SENT TO MR LAWALLEE'S ATTENT

FILE COPY

September 25, 1990

Mr. Charles Jordan
Hercules Incorporated
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

Re: NPDES Permit No. MS001830
Hercules Inc.
Forrest County

Enclosed is a copy of the Compliance Monitoring inspection report that was performed at the above referenced facility on June 26, 1990. The results of this inspection should be used by you as a guide for complying with requirements and limitations as stated by your NPDES permit. The inspection revealed that the facility was in compliance.

If you have any questions concerning this matter, please contact us at 961-5171.

Respectfully,

Taher Diab
Industrial Wastewater Control Branch

TD:daa
Enclosures
cc: Mr. Pete McGarry, EPA (w/enclosures)
SRO
Mr. Paul Zetterholm (w/attachment)

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

September 18, 1990

Certified Mail -
Return Receipt Requested
No. P 814 346 295

Sam Mabry
Division of Solid Waste
P. O. Box 10385
Jackson, MS 39289-0385

Dear Mr. Mabry:

Re: 40% Sulfuric Acid By-Product

Following our September 12, 1990 phone conversation, please find the following data and support documentation addressing the above subject.

At Hattiesburg we produce a finished product called Poly-Pale®. The process is as follows. Rosin (either Wood, Tall Oil, or Gum) is put in Toluene solution and polymerized in the presence of concentrated sulfuric acid in a lead-lined reactor. The reactant is diluted with water (during subsequent hydrolysis) which facilitates an organic/aqueous phase separation.

The organic phase (Toluene/resin) has the Toluene removed by evaporation and the resulting Resin is Poly-Pale®. The Toluene is then used to put more feed Resin in solution for polymerization.

The aqueous phase is diluted sulfuric acid which is approximately 40% concentration. The acid is straw color and based on our process knowledge contains trace amounts of Resin (feed ingredient), and may contain trace amounts of Toluene (process solvent) and lead (lead-lined reactor). Our product, Poly-Pale®, is FDA approved.

In the past we have used this acid to augment the use of purchased acid for pH adjustment in our NPDES wastewater treatment. This is done in accordance with "40CFR261.2...(e) Materials that are not solid waste when recycled. (1) Materials are not solid waste when they can be shown to be recycled by being...(ii) used or reused as effective substitute for commercial chemical products." For pH adjustment the 40% acid works just as well as purchased acid and we do not believe this material may pose a substantial hazard to human health and the environment when recycled.

During recent years other plant process changes coupled with regulatory requirements have resulted in the potential to produce more 40% acid than required in our wastewater pH adjustment. For this reason we have been looking for another use for some of this acid.

Georgia Pacific in New Augusta has examined laboratory samples of our acid and found it to be an effective substitute for purchased acid used in their wastewater treatment. We are proposing to sell this acid to Georgia Pacific with the following benefits from this two-party legitimate recycling arrangement. Hercules will receive monetary benefit from this in reduced neutralization costs. Georgia Pacific will receive monetary benefit from reduced acid costs. The environmental benefit will be the elimination of sodium sulfate generation by the equivalent amount of acid that Georgia Pacific consumes.

By copy of this letter we are requesting your determination and a Tank Truck plant scale-up trial evaluation of this arrangement during the first part of October.

Attached is an MSDS of our 40% acid which will be shipped according to DOT regulations as: Sulfuric Acid, spent, corrosive material, UN1832, corrosive, R.Q., (40% Sulfuric Acid). If you have any additional questions please call me at (601)545-3450. Our contact at Georgia Pacific is Acker Smith at (601)964-8411.

Yours truly,

HERCULES INCORPORATED

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
ml0006/5

cc: Jerry Cain - Dept. Environmental Quality
Preston Kirkendall - Hercules Incorporated
Acker Smith - Georgia Pacific
Phil Utter - Georgia Pacific

WASTEFLOW

17.83
15.23
20.58
20.91
18.08
18.08
15.81
18.65
16.62
21.45
18.49

AVG = 18.34 MGD

LEAD 3.3 mg/l

7Q10 = 440 CFS = 284 MGD

ACID @ 36PPM ~ 0.0043 MGD

$$\frac{3.3\,(0.0043)}{18.34} = 0.0008 \text{ mg/l}$$

% wastestream conc.

OK

KAL

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

July 11, 1990

No. P 814 346 298
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached are the results from our Second Quarter 1990 Static Bioassay. The 96 hour LC-50 Application Factor at an effluent flow of 3.73 MGD or 3.20% concentration in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachment

cc: P. W. Kirkendall - W/O Attachments
E. P. Trotter - W/O Attachments

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

September 19, 1990

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED
NOL. P 814 346 296

Sam Mabry
Division of Solid Waste
P. O. Box 10385
Jackson, MS 39289-0385

Dear Mr. Mabry:

Enclosed please find the MSDS attached to your letter dated, September 18, 1990. This was inadvertently left out. Please keep this for your records. Thank you for your trouble.

Yours truly,

HERCULES INCORPORATED

Charles S. Jordan /ml

Charles S. Jordan
Environmental Supervisor

CSJ:ml

Enclosure

cc: Jerry Cain - Dept. of Environmental Quality
Preston Kirkendall - Hercules Incorporated
Acker Smith - Georgia Pacific
Phil Utter - Georgia Pacific

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

September 18, 1990

Certified Mail -
Return Receipt Requested
No. P 814 346 295

Sam Mabry
Division of Solid Waste
P. O. Box 10385
Jackson, MS 39289-0385

Dear Mr. Mabry:

Re: 40% Sulfuric Acid By-Product

Following our September 12, 1990 phone conversation, please find the following data and support documentation addressing the above subject.

At Hattiesburg we produce a finished product called Poly-Pale®. The process is as follows. Rosin (either Wood, Tall Oil, or Gum) is put in Toluene solution and polymerized in the presence of concentrated sulfuric acid in a lead-lined reactor. The reactant is diluted with water (during subsequent hydrolysis) which facilitates an organic/aqueous phase separation.

The organic phase (Toluene/resin) has the Toluene removed by evaporation and the resulting Resin is Poly-Pale®. The Toluene is then used to put more feed Resin in solution for polymerization.

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During recent years other plant process changes coupled with regulatory requirements have resulted in the potential to produce more 40% acid than required in our wastewater pH adjustment. For this reason we have been looking for another use for some of this acid.

Georgia Pacific in New Augusta has examined laboratory samples of our acid and found it to be an effective substitute for purchased acid used in their wastewater treatment. We are proposing to sell this acid to Georgia Pacific with the following benefits from this two-party legitimate recycling arrangement. Hercules will receive monetary benefit from this in reduced neutralization costs. Georgia Pacific will receive monetary benefit from reduced acid costs. The environmental benefit will be the elimination of sodium sulfate generation by the equivalent amount of acid that Georgia Pacific consumes.

By copy of this letter we are requesting your determination and a Tank Truck plant scale-up trial evaluation of this arrangement during the first part of October.

Attached is an MSDS of our 40% acid which will be shipped according to DOT regulations as: Sulfuric Acid, spent, corrosive material, UN1832, corrosive, R.Q., (40% Sulfuric Acid). If you have any additional questions please call me at (601)545-3450. Our contact at Georgia Pacific is Acker Smith at (601)964-8411.

Yours truly,

HERCULES INCORPORATED

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
ml0006/5

cc: Jerry Cain - Dept. Environmental Quality
Preston Kirkendall - Hercules Incorporated
Acker Smith - Georgia Pacific
Phil Utter - Georgia Pacific

MATERIAL SAFETY DATA SHEET

HERCULES INCORPORATED
Hercules Plaza
Wilmington, DE 19894
Phone #: (302) 594-5000 (24 hrs)

Sulfuric Acid Spent,
(30-50% strength)

MSDS No.: 999 0420 0002-01

Date: 06/29/90

I. PRODUCT IDENTIFICATION

DANGER! CAUSES SEVERE EYE BURNS.
CAUSES SEVERE SKIN BURNS.
CAUSES SEVERE LUNG IRRITATION.
CAUSES SEVERE THROAT AND STOMACH BURNS.

Sulfuric Acid Spent, (30-50% strength)

HMIS RATINGS: (1)

Health hazard:	3	Serious
Flammability hazard:	0	Minimal
Reactivity hazard:	0	Minimal

APPEARANCE AND ODOR: Yellowish-brown to black liquid; no odor

II. HAZARDOUS INGREDIENTS & EXPOSURE LIMITS

CHEMICAL & COMMON NAMES:		%	RECOMMENDED AIRBORNE LEVELS (1) 1989-1990	
			OSHA TWA	TLV-TWA
Sulfuric acid	7664-93-9	30-50		1 mg/m3

FOOTNOTES

(1) Explanation of acronyms:
OSHA: Occupational Safety and Health Administration.
TLV: Registered trademark of American Conference of Governmental Industrial Hygienists for Threshold Limit Values.
TWA: Time Weighted Average
N/A: Not applicable

III. TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING POINT: 117 C (243 F) (Typical)

VAPOR PRESSURE AT 20 C: Not determined.

VAPOR DENSITY: N/A

VOLATILE (VOL.),%: N/A

SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY: 1.3 (Typical)

pH: 0.0 - 1.0

EVAPORATION RATE: Slower than butyl acetate

FREEZING POINT: -60 C (-76 F) For 40% acid (2)

(2) Small changes in concentration result in large changes in freezing point.

IV. FIRE, EXPLOSION, & REACTIVITY HAZARD DATA

FLASH POINT: N/A

FLAMMABLE LIMITS: N/A

AUTOIGNITION TEMPERATURE: N/A

EXTINGUISHING MEDIA: N/A - Will not burn.

SPECIAL FIREFIGHTING PROCEDURES:
Cool tank with water if exposed to fire. Do not introduce water into tank. Use self-contained breathing apparatus in fume or mist.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Hydrogen may be generated by the action of acid on metals. Take care not to ignite hydrogen gas which can accumulate inside metal tanks and drums containing this material.

STABILITY CONSIDERATIONS:
Stable. Conditions to Avoid: Exposure to heat will cause evolution of acid fumes. Reacts exothermically with water.

INCOMPATIBILITY WITH:
Corrosive to many metals releasing hydrogen. Keep away from carbides, chlorates, fulminates, nitrates, picrates, powdered metals and combustible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur dioxide

HAZARDOUS PRODUCTS OF COMBUSTION: Not combustible

HAZARDOUS POLYMERIZATION: Will not occur.

V. HEALTH HAZARD DATA

DANGER! CAUSES SEVERE EYE BURNS.
CAUSES SEVERE SKIN BURNS.
CAUSES SEVERE LUNG IRRITATION.
CAUSES SEVERE THROAT AND STOMACH BURNS.

SIGNS AND SYMPTOMS OF OVEREXPOSURE IN THE WORKPLACE:

EYES:	Vapors - Redness, pain, blurred vision Liquid - Severe pain and permanent corneal damage
SKIN:	Redness, pain
INHALATION:	Tickling and irritation in nose and throat, sneezing, cough, and shallow, rapid breathing. Etching or erosion of tooth enamel.
INGESTION:	Throat and abdominal pain, nausea, possible vomiting, shock.

EMERGENCY & FIRST AID PROCEDURES:

EYES: In case of contact, immediately flush with plenty of low-pressure water for at least 15 minutes. Remove any contact lenses to ensure thorough flushing. Call a physician immediately. Water will react with the acid to liberate heat which may cause more burns. Therefore, lots of water must be used to prevent any secondary thermal burns. The water should be as cool as the patient can tolerate. Warmer water can be used in the later stages of washing.

SKIN: Promptly flush with running water. Remove contaminated clothing and continue flushing affected skin areas. Wash clothing before reuse. Large amounts of water must be used to prevent secondary thermal burns (see above under "First Aid, Eyes"). Call a physician immediately.

INHALATION: Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

INGESTION: Drink ice cold water or ice slush to dilute. Then neutralize slowly with milk of magnesia or antacids containing aluminum hydroxide or with lime water. Do NOT induce vomiting. Do NOT neutralize with bicarbonate. Call a physician immediately.

NOTE TO PHYSICIAN: Treat irritation symptomatically. In cases of severe overexposure to vapors or mist, delayed esophageal, glottal, tracheal, or pulmonary edema may develop.

Continued...

V. HEALTH HAZARD DATA

...Continued

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE:
Any pre-existing skin, respiratory, or mucous membrane irritation.

PRIMARY ROUTE OF ENTRY: Eyes, skin, inhalation, ingestion

CANCER INFORMATION:
Not listed as a carcinogen by NTP (National Toxicology Program); not regulated as a carcinogen by OSHA (Occupational Safety & Health Administration); not evaluated by IARC (International Agency for Research on Cancer).

REPORTED HUMAN EFFECTS:
In addition to those reported above, only upset of blood acid/base balance has been reported for single overexposures by swallowing. Chronic overexposure to high concentrations by inhalation has been reported to cause pulmonary fibrosis and emphysema.

REPORTED ANIMAL EFFECTS:
Monkeys breathing for 2 years air containing 2.4 mg/m3 of sulfuric acid mist did not show any serious effects. Under the same conditions, 4.8 mg/m3 caused severe lung damage.

VI. SPILL PROCEDURES & WASTE DISPOSAL

SPILL PROCEDURES:
Shut off leak if possible to do so without risk. If necessary to enter spill area, wear chemical goggles, and full protective clothing including boots. Keep open flames away from tank openings, and do not strike tank fittings with tools or other hand objects. Contain and neutralize with soda ash or lime. Flush area with water spray, but do not get water in tank.

WASTE DISPOSAL METHOD:
Acid should be neutralized before disposal. The neutralized material should be discharged, if allowed by local, state, and federal wastewater discharge regulations and permits.

Refer to Section VIII for specific Federal Environmental and Regulatory Data regarding use or disposal of this product.

VII. APPLICABLE CONTROL MEASURES

APPROPRIATE HYGIENIC PRACTICES:

Do not allow eye or skin contact.
Avoid breathing vapors or mists.
Wash thoroughly after handling, and before eating, drinking or smoking.
Remove contaminated clothing promptly and clean thoroughly before reuse.

PERSONAL PROTECTIVE EQUIPMENT:

Impervious gloves
Chemical goggles
Appropriate protective clothing
Face shield
Appropriate respirator selected and used in accordance with OSHA Subpart I (29 CFR 1910.134) required when exposure to airborne contaminant is likely to exceed acceptable limits.

WORK PRACTICES:

Eyewash fountains and safety showers should be easily accessible.
Always dilute sulfuric acid by adding it slowly to water with agitation. NEVER add water to the concentrated acid.

HANDLING AND STORAGE PRECAUTIONS:

Store in cool, well-ventilated place, separated from all oxidizing or reducing materials, alkalies and metals.
Corrosive to many metals resulting in hydrogen release. Keep away from carbides, chlorates, fulminates, nitrates, picrates, powdered metals and combustible materials.
Keep open flames and other ignition sources from tank storage.

ENGINEERING CONTROLS:

Adequate ventilation should be provided to keep mist and vapor concentrations below acceptable exposure limits.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE:

Tanks which have contained acids must be checked before and during maintenance for flammable hydrogen mixtures.

VIII. ENVIRONMENTAL REGULATORY DATA

The following Environmental and regulatory data are provided to assist users of this product in defining their regulatory environmental compliance obligations.

A. PRODUCT COMPOSITION

PRODUCT (P) or COMPONENT NO.	TRADE NAME or CHEMICAL COMPONENT	CAS NUMBER	WT. PERCENT
P	Sulfuric Acid Spent, (30-50%)	N/A	100
1	Sulfuric acid	7664-93-9	30

B. SARA TITLE III (See footnotes)

COMPONENT NO.	SEC. 304 EHS RQ (lbs).	SEC. 302 EHS TPQ (lbs)	SEC. 311/312 HAZARD CATEGORY	SEC 313 TOXIC CHEMICAL (YES, NO)
P	3333	N/A	HC-1, NPH	N/A
1	1000	N/A	HC-1	YES

C. CERCLA (40 CFR 302.4 HAZARDOUS SUBSTANCE & REPORTABLE QUANTITIES)

Sulfuric Acid is a "Hazardous Substance" listed in 40 CFR 302.4. Sulfuric Acid has a "Reportable Quantity" of 1,000 lbs. (605 Kg.) of 100% active acid.

D. RCRA INFORMATION

This product exhibits the characteristic of corrosivity as defined in hazardous waste regulations 40 CFR 261 Subpart C. Therefore disposal of unused product must comply with hazardous waste regulations.

E. OTHER

None

Continued...

VIII. ENVIRONMENTAL REGULATORY DATA

...Continued

FOOTNOTES:

SEC. 302 - Threshold Planning Quantity, Extremely Hazardous Substance (EHS) (40 CFR 355 Emergency Planning and Notification regulations)

N/A: This chemical is not an EHS. Therefore, there is no Threshold Planning Quantity (TPQ).

SEC. 304 - Reportable Quantity for Releases of an EHS (40 CFR 355, Appendix A)

N/A: This chemical is not an EHS. Therefore, there is no Reportable Quantity (RQ).

SEC 311/312 - 40 CFR 370 Hazardous Chemical Reporting Requirements "Hazard Categories"

- HC-1 Immediate (acute) health hazard
- HC-2 Delayed (chronic) health hazard
- HC-3 Fire hazard
- HC-4 Sudden release of pressure hazard
- HC-5 Reactive hazard
- NHH Not a health hazard
- NPH Not a physical hazard

SEC 313 - 40 CFR 372 Toxic Chemical Release Reporting Requirements

NO: This component is NOT subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 Toxic Chemical Reporting requirements.

YES: This component is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 Toxic Chemical Reporting requirements. Percent composition (or estimated range) is listed above.

N/A: This product is a mixture. As such, it is not listed as a Toxic Chemical under 40 CFR 372, Sect. 313 reporting requirements. Reportable constituents are listed individually where they exceed threshold concentration limits.

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

September 10, 1990

No. P 814 346 293
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for August, 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachment

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

August 13, 1990

No. P 127 154 166
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for July 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:sj
jordan:3

Attachments

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

July 19, 1990

No. P 814 346 302
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for June, 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachment

cc: P. W. Kirkendall - W/O Attachments
E. P. Trotter - W/O Attachments

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

March 21, 1990

Forrest County

MS221900

No. P 814 346 197
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached are the results from our First Quarter 1990 Static Bioassay. The 96 hour LC-50 Application Factor at an effluent flow of 5.45 MGD or 4.66% concentration in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachment

cc: P. W. Kirkendall - W/O Attachments
E. P. Trotter - W/O Attachments

HERCULES

Interoffice Memo

June 13, 1990

P 127 154 168
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for May 1990.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:sj
jordan:18

Attachments

cc: P. W. Kirkendall
E. P. Trotter, Jr.

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

May 17, 1990

No. P 127 154 166
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

The purpose of this letter is to inform you that on 5/12/90 we experienced approximately ten (10) inches of rainfall. As a result of this excessive amount of rainfall over a short period of time, we estimate the following amount of primary wastewater (1000 gpm x 390 min.) bypassing secondary treatment.

	Flow MGD	TOC mg/l	TOC lbs./day
Bypass Outfall 001	~0.390	155	504 (Net) 996 (Net)
Total			1500

If I can answer any additional questions, please call me.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:sj
jordan:4

Attachments

cc: P. W. Kirkendall
E. P. Trotter, Jr.

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

May 15, 1990

No. P 127 154 164
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for April 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:sj
jordan:4

Attachments

cc: P. W. Kirkendall
E. P. Trotter, Jr.

FILE COI

April 17, 1990

Mr. Charles Jordan
HERCULES Incorporated
P. O. Box 1937
Hattiesburg, MS 39401

Dear Mr. Jordan:

Re: NPDES Permit No. MS0001830
Forrest County

Enclosed is a copy of the compliance evaluation inspection report that was performed at the above referenced facility on April 6, 1990. The results of this inspection should be used by you as a guide for complying with requirements and limitations as stated by your NPDES permit. The inspection revealed that the facility was in compliance.

If you have any questions concerning this matter, please contact us at 961-5171.

Respectfully,

Taher Diab
Industrial Wastewater Control Branch

TD:cdh
Enclosures
cc: Mr. Pete McGarry, EPA (w/enclosures)
SRO
Mr. Warren Foster (w/attachment)

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

April 12, 1990

No. P 127 154 153
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for March, 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachment

cc: P. W. Kirkendall - W/O Attachments
E. P. Trotter - W/O Attachments

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

March 7, 1990

No. P 814 346 193
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Attached is our EPA Discharge Monitoring Report for February, 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

cc: P. W. Kirkendall
E. P. Trotter

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

February 27, 1990

No. P 814 346 188
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

Re our phone conversation on 2/23/90, the purpose of this letter is to inform you that on 2/21/90 we experienced over 3 inches of rainfall over an approximate two hour period. As a result of this excessive amount of rainfall over a short period of time, we estimate the following amount of primary wastewater (1000 GPM x 90 min.) bypassing secondary treatment.

	Flow MGD	TOC mg/l	TOC lbs./day
Bypass	0.090	31	14 (Net)
Outfall 001			517 (Net)
Total			531

If I can answer any additional questions, please call me.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

cc: P. W. Kirkendall
E. P. Trotter

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

February 12, 1990

No. P 814 346 185
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for January, 1990.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachments

cc: E. A. Ikenberry, Env. Aff. - 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

January 29, 1990

NO. P 814 346 183
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

NPDES Permit No. MS0001830

We have received your January 16, 1990 letter addressing sampling results obtained from December 5, 1989 split sampling. As discussed in our January 29, 1990 phone conversation please find the following comments. Based upon the results we obtained from split samples we do not concur that the samples were in violation.

For Delnav, our result was below the published method sensitivity of 1 ppb. However, from data extrapolation the concentration was calculated as 0.069 ppb. This suggest that the bureau sample result of 67 ppb and our result differ by a calculation factor of 1000. We believe our value is correct, and the resulting quantity would be 0.00027 lbs/day.

For Phenol, our result obtained from an independent laboratory was 0.057 ppm. The resulting quantity would be 0.22 lbs/day.

If I can answer any additional questions, please call me at 545-3450. Please let me know your findings.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:ml

cc: Pete McGarry
US-EPA, Region IV
345 Courtland St. N.E.
Atlanta, GA 30365

Warren Foster
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

P. W. Kirkendall

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

January 29, 1990

NO. P 814 346 181
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Taher Diab
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Diab:

NPDES Permit No. MS0001830

We have received your January 16, 1990 letter addressing sampling results obtained from December 5, 1989 split sampling. As discussed in our January 29, 1990 phone conversation please find the following comments. Based upon the results we obtained from split samples we do not concur that the samples were in violation.

For Delnav, our result was below the published method sensitivity of 1 ppb. However, from data extrapolation the concentration was calculated as 0.069 ppb. This suggest that the bureau sample result of 67 ppb and our result differ by a calculation factor of 1000. We believe our value is correct, and the resulting quantity would be 0.00027 lbs/day.

For Phenol, our result obtained from an independent laboratory was 0.057 ppm. The resulting quantity would be 0.22 lbs/day.

If I can answer any additional questions, please call me at 545-3450. Please let me know your findings.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml

cc: Pete McGarry
US-EPA, Region IV
345 Courtland St. N.E.
Atlanta, GA 30365

Warren Foster
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

P. W. Kirkendall

FILE COPY

January 16, 1990

Mr. Charles S. Jordan
Hercules
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

Re: NPDES Permit No. MS0001830
Forrest County

Enclosed is a copy of the analytical sampling report that was performed at the Hercules on December 5, 1989. The sampling results indicate that the erfluent was not in compliance with your NPDES permit limits. The results of this inspection should be used by you as a guide for complying with requirements and limitations as stated by your NPDES permit.

The following violations were noted:

Parameter	Permit Requirement	Sample Results	Deviation
Delnar	0.21 lbs/day	0.26 lbs/day	23.8%
Phenol	4.9 lbs/day	7.76 lbs/day	58.4%

If you have any questions concerning this matter, please contact us at 961-5171.

Respectfully,

Taher Diab
Industrial Wastewater Control Branch

TD:dfj
Enclosures
cc: Mr. Pete McGarry, EPA (w/enclosures)
SMO
Mr. Warren Foster (w/attachment)

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

January 11, 1990

No. P 814 346 176
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for December, 1989.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

Attachments

cc: E. A. Ikenberry, Env. Aff. - 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

January 3, 1990

CERTIFIED MAIL -
RETURN RECEIPT REQUESTED
#P-814-346-174

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG MS

Attached are the results from our Fourth Quarter 1989 Static Bioassay. The 96 hour LC-50 Application Factor at an effluent flow of 4.44 MGD or 3.80% concentration in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ/dc
corrsdc:6

cc: P. W. Kirkendall
E. P. Trotter

November 27, 1989

FILE COPY

Mr. Charles Jordan
Hercules
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

Re: NPDES No. MS001830
Compliance Sampling
Forrest County

Enclosed a copy of the analytical laboratory results on samples taken at your facility on June 27, 1989. These results indicate that the referenced permittee is in compliance with the effluent limitations of the NPDES permit. We appreciate your efforts in maintaining water quality and encourage the continued success at your facility.

If you have any questions or if we can be of further assistance, please advise.

Very truly yours,

Taher Diab
Industrial Wastewater Control Branch

TD:cm
Enclosures
cc: Mr. Pete McGarry, EPA (w/enclosures)
SRO
Mr. Warren Foster, BPC

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

November 7, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
P-814-346-170

Mr. Earl Mahaffey
Bureau of Pollution Control
P.O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for October 1989.

Very Truly Yours,

Charles S. Jordan
Environmental Supervisor

CSJ/dc
corrsdc:3

Attachments

cc: E. A. Ikenberry, Env. Aff. - 5160 NW, Wilm.
P. W. Kirkendall - Hattiesburg
E. P. Trotter - Hattiesburg

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

October 24, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
NO. P 814 346 169

Taher Diab
Industrial Wastewater Control Branch
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39289-0385

RE: DMR/QA Study 009-MS0001830

Dear Mr. Diab:

This letter is in response to your October 13, 1989, letter request.

As you are aware we have participated in the DMR/QA study program in the past and are looking forward to participation in the future. Please find the following explanation from our review of Study 009.

In March of 1989 our NPDES laboratory technician retired. In May of 1989 our Laboratory Supervisor took other employment. During this transition period the samples were apparently analyzed but never reported. After review we have located what original data is available and the results are reported on the attached form.

Please excuse this incident and as previously stated we are looking forward to the upcoming study.

If I can answer any additional questions, please let me know (601-545/3450).

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
29

Attachment

cc: P. W. Kirkendall
D. Linde
D. Spence

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P.O. Box 10385
Jackson, Mississippi 39289-0385
(601) 961-5171

October 13, 1989

FILE COPY

Mr. Charles Jordan
Hercules Incorporated
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

Re: DMR/QA Study 009
MS001830

During February, 1989, you were sent a set of NPDES Laboratory Performance Samples, reporting forms, and instructions. Under the authority of Section 308(a) of the Clear Water Act (33 U.S.C. 1251 et. seq.), you were directed to analyze the performance samples for parameters requiring monitoring under the terms and conditions of your NPDES permit. The results of your analyses were to be returned by April 10, 1989, to the following address:

The Bionetics Corporation
16 Triangle Park Drive
Cincinnati, Ohio 45246

According to the EPA contractor, Bionetics, you did not supply the required data. You are hereby requested to supply an explanation to this office of your inability to provide this information by November 1, 1989.

The Bureau strongly supports the referenced program and expects your cooperation.

You are required to participate in the upcoming study which will be shipped during the January-March period of 1990. If you have any questions concerning this study or need technical assistance, please contact:

Mr. Phillip Bass
DMR/QA State Coordinator
Mississippi Bureau of Pollution Control
121 Plaza
Pearl, Mississippi 39208
(601) 961-5183

Thank you for your cooperation in this matter.

Sincerely,

Taher Diab
Industrial Wastewater Control Branch

TD:dfj
cc: Mr. Pete McGarry, EPA
Mr. Phil Bass
DMR/QA File

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

October 11, 1989

Forrest County

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
NO. P 814 346 165

RECEIVED
OCT 16 1989
Dept. of Environmental Quality
Bureau of Pollution Control

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for September 1989.

Very Truly Yours,

Charles S. Jordan
Environmental Supervisor

CSJ:ml
28

Attachments

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

TFD

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

October 3, 1989

RECEIVED
OCT - 4 1989
DNR-BPC

Forrest Cnty.

No. P 814 346 164
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG, MS

Attached are the results from our Third Quarter 1989 Static Bioassay. The 96 hour LC-50 Application Factor at an effluent flow of 6.57 MGD or 5.63% concentration in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

cc: P. W. Kirkendall
E. P. Trotter

September 27, 1989

FILE COPY

Mr. Charles Jordan
Hercules Incorporated
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Jordan:

Re: NPDES Permit No. MS0001830
Forrest County

Enclosed is a copy of the facility inspection report and sampling that was performed at the Hercules facility on June 27, 1989. The results of this inspection should be used by you as a guide for complying with requirements and limitations as stated by your NPDES permit. The inspection revealed that the facility was in compliance.

If you have any questions concerning this matter, please contact us at 961-5171.

Respectfully,

Taher Diab
Industrial Wastewater Control Branch

TD:eb
Enclosures
cc: SRO
Mr. Warren Foster (w/attachment)

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

September 22, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
#P-814-346-161

Mr. Earl Mahaffey
Bureau of Pollution Control
P.O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for August 1989.

Very Truly Yours,

Charles Jordan

Charles Jordan
Environmental Supervisor

CJ/dc
cj1

Attachments

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

FILE
Forest

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

cc: Plant File

August 17, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
#P-814-346-153

Mr. Earl Mahaffey
Bureau of Pollution Control
P.O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for July 1989.

Very Truly Yours,

Charles Jordan

Charles Jordan
Environmental Supervisor

CJ/dc
cj1

Attachments

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

FILE FORREST

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

July 10, 1989

No. P 814 346 102
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for June 1989.

Very truly yours,

Charles S Jordan

Charles S Jordan
Environmental Supervisor

CSJ:ml
20

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

FILE FORREST

June 14, 1989

Mr. Charles Jordan
Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

As per our conversation of June 8, 1989, Hercules, Inc. has been removed from the EPA listing of OCPSF Direct Dischargers. This exemption is allowed under the regulations due to other applicable categorical industry effluent limitation guidelines (gum and wood) and that all wastewaters are combined and treated.

If you have any questions regarding the aforementioned, please do not hesitate to contact me.

Sincerely,

James E. Mahaffey
Industrial Wastewater Control Branch

JEM:els

MAY 1 '89

West ...
P.O. Box 16...
Hattiesburg, M...
(601) 545-3450

HERCULES

April 18, 1989

No. P 814 346 131
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

The purpose of this letter following our 4/18/89 phone conversation is to request that you delete our NPDES permit direct discharge from the EPA listing of OCPSF direct dischargers for the following reasons.

40 CFR 414, 11/5/87, page 42523, column 1, paragraph 4

"The OCPSF regulation does not apply to discharges from OCPSF product/process operations which are covered by the provisions of other categorical industry effluent limitations guidelines and standards if the wastewater is treated in combination with the non-OPCSF industrial category regulated wastewater."

40 CFR 414, 11/5/87, page 42523, column 3, paragraph 1

"Finally, as described in the following paragraphs, this regulation does not cover certain production that has historically been reported to the Bureau of Census under a non-OPCSF SIC subgroup heading, even if such production could be reported under one of the five SIC code groups covered by today's regulation."

I trust you concur and will delete our facility from the EPA list of known active OPCSF direct discharges. Please advise.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
6

cc: P. W. Kirkendall

FILE COPY

FILE FORREST

June 14, 1989

Mr. Charles Jordan
Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

As per our conversation of June 8, 1989, Hercules, Inc. has been removed from the EPA listing of OCPSF Direct Dischargers. This exemption is allowed under the regulations due to other applicable categorical industry effluent limitation guidelines (gum and wood) and that all wastewaters are combined and treated.

If you have any questions regarding the aforementioned, please do not hesitate to contact me.

Sincerely,

James E. Mahaffey
Industrial Wastewater Control Branch

JEM:els

FILE FORREST

FILE COPY

June 14, 1989

Mr. Charles Jordan
Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

As per our conversation of June 8, 1989, Hercules, Inc. has been removed from the EPA listing of OCPSF Direct Dischargers. This exemption is allowed under the regulations due to other applicable categorical industry effluent limitation guidelines (gum and wood) and that all wastewaters are combined and treated.

If you have any questions regarding the aforementioned, please do not hesitate to contact me.

Sincerely,

James E. Mahaffey
Industrial Wastewater Control Branch

JEM:els

Fice Forrest

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

June 13, 1989

No. P 814 346 098
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for May 1989.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:ml
17

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W.Kirkendall
E. P. Trotter

File Forest

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

June 13, 1989

No. P 814 346 097
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Re our phone conversation on 6/8/89, the purpose of this letter is to inform you that on 6/7/89 we experienced approximately 3.2 inches of rainfall over an approximate two hour period. As a result of this excessive amount of rainfall over a short period of time, we estimate the following amount of primary wastewater (1000 GPM x 30 min.) bypassing secondary treatment.

	Flow MGD	TOC mg/l	TOC lbs./day
Bypass Outfall 001	0.030	87	15 (Net) 821 (Net)
Total			836

If I can answer any additional questions, please call me.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

cc: P. W. Kirkendall
E. P. Trotter

FILE
FOREST

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

May 11, 1989

No. P 814 346 140
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

Attached is our EPA Discharge Monitoring Report for April 1989.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ:ml
5

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

File Forrest

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

May 8, 1989

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 814 346 135

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Gentlemen:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG, MS

Re our previous phone conversation, attached is our EPA Discharge Monitoring Report for March 1989.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ/mcl
de0016/3

Attachments

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

FILE COPY

April 27, 1989

FILE COPY

Mr. Charles Jordan
Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

Re: NPDES Permit No. MS0001830

Enclosed is a copy of the facility inspection report that was performed at the Hercules facility on April 12, 1989. The results of this inspection should be used by you as a guide for complying with requirements and limitations as stated by your NPDES permit. The inspection revealed that the facility was in compliance.

If you have any questions concerning this matter, please contact us at 961-5171.

Respectfully,

James E. Mahaffey
Industrial Wastewater Control Branch

JEM:cm
Enclosures
cc: Mr. Pete McGarry, EPA (w/enclosures)
Mr. Warren Foster, BPC

File Forest

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

April 18, 1989

No. P 814 346 131
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

The purpose of this letter following our 4/18/89 phone conversation is to request that you delete our NPDES permit direct discharge from the EPA listing of OCPSF direct dischargers for the following reasons.

40 CFR 414, 11/5/87, page 42523, column 1, paragraph 4

> "The OCPSF regulation does not apply to discharges from OCPSF product/process operations which are covered by the provisions of other categorical industry effluent limitations guidelines and standards if the wastewater is treated in combination with the non-OPCSF industrial category regulated wastewater."

40 CFR 414, 11/5/87, page 42523, column 3, paragraph 1

> "Finally, as described in the following paragraphs, this regulation does not cover certain production that has historically been reported to the Bureau of Census under a non-OPCSF SIC subgroup heading, even if such production could be reported under one of the five SIC code groups covered by today's regulation."

I trust you concur and will delete our facility from the EPA list of known active OPCSF direct discharges. Please advise.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
6

cc: P. W. Kirkendall

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

April 6, 1989

No. P 814 346 107
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG, MS

Attached are the results from our First Quarter 1989 Static Bioassay. The 96 hour LC-50 Application Factor at an effluent flow of 5.66 MGD or 4.85% concentration in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

C. S. Jordan
Environmental Supervisor

CSJ:sj
JORDAN/3

Attachments

HERCULES

Interoffice Memo

March 9, 1989

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 814 346 095

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Gentlemen:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG, MS

Attached is our EPA Discharge Monitoring Report for February 1989.

Very truly yours,

Charles S. Jordan
Environmental Supervisor

CSJ/de
de0016/3

Attachments

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

File Forest

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

February 24, 1989

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 814 346 309

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

The purpose of this letter is to confirm our 2/24/89 phone conversation. Non-contact cooling water from one process which will not gravity flow and requires pumping into our uncontaminated water system, is gravity flowing into a storm runoff. The reason is a frozen line failure which is being repaired and the non-contact cooling water will be returned into our uncontaminated water system as soon as line repairs are complete.

If I can answer any questions, please let me know.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ/de
de0016

cc: P. W. Kirkendall

HERCULES

Forest

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

February 9, 1989

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 814 346 308

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Gentlemen:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG, MS

Attached is our EPA Discharge Monitoring Report for January 1989.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ/de
de0016/3

Attachments

cc: E. A. Ikenberry, Env. Aff., 5160 NW, Wilm.
P. W. Kirkendall
E. P. Trotter

FILE FORREST

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

February 1, 1989

NO. P 814 346 089
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

The purpose of this letter is to report a small leak (dripping) of industrial wastewater into a storm drain on 1/31/89.

During maintenance improvements an industrial sewer line was broken which allowed wastewater to back up into an abandoned sewer line. A small leak was detected and promptly corrected. As a result of this, the entire abandoned system is being filled in and eliminated in order to prevent a reoccurrence.

If I can answer any questions please call me.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ:ml
JORDAN/11

cc: P. W. Kirkendall
E. P. Trotter

FILE
FORREST

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

January 11, 1989

P 814 346 316
CERTIFIED MAIL--RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Earl:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG, MS

Attached is our EPA Discharge Monitoring Report for December 1988.

Very truly yours,

Charles S Jordan
Environmental Supervisor

CSJ:sj
jordan:7

Attachments

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

FILE FORGET

January 3, 1989

NO. P 814 346 313
CERTIFIED MAIL -
RETURN RECEIPT REQUESTED

Mr. Earl Mahaffey
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Mahaffey:

NPDES PERMIT NO. MS0001830
HERCULES INCORPORATED, HATTIESBURG, MS

Attached are the results from our Fourth Quarter 1988 Static Bioassay. The 96 hour LC-50 Application Factor at an effluent flow of 6.676 MGD or 5.72% concentration in the Bowie River was not calculated because of the low mortality rate.

Very truly yours,

HERCULES INCORPORATED

C. S. Jordan
Environmental Supervisor

CSJ:ml
JORDAN/3

Attachment

FINAL
DATE: Oct. 22, 91

State of Mississippi
Water Pollution Control
PERMIT

TO DISCHARGE WASTEWATER IN ACCORDANCE WITH THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

THIS CERTIFIES THAT

HERCULES INCORPORATED
HATTIESBURG, MISSISSIPPI

has been granted permission to discharge wastewater into

Bowie River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof. This permit is issued in accordance with the provisions of the Mississippi Water Pollution Control Law (Section 49-17-1 et seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder, and under authority granted pursuant to Section 402(b) of the Federal Water Pollution Control Act.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Charles Chisolm

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: October 22, 1991

Expires: October 21, 1996

Permit No. MS0001830

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning October 22, 1991, and lasting until October 21, 1996, the permittee is authorized to discharge from outfall(s) serial number(s) 001 (Process Wastewater and Treated Stormwater Runoff).

   Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETER	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	kg/day (lbs/day)		Other Units (Specify)			
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow-M^3/day (MGD)	N/A	N/A	Report	Report	Continuous	Recorder
Biochemical Oxygen Demand (5-Day)	741(1634)	1384(3051)	N/A	N/A	3 Days/Week	24-Hr. Composite
Total Suspended Solids, Net	263(579)	748(1648)	N/A	N/A	3 Days/Week	24-Hr. Composite
Total Organic Carbon, Net	1134(2500)	1724(3800)	N/A	N/A	3 Days/Week	24-Hr. Composite
Oil and Grease	299(660)	449(990)	N/A	N/A	3 Days/Week	Grab
Phenol	1.5(3.3)	2.2(4.9)	N/A	N/A	3 Days/Week	Grab

2. The pH shall not be less than N/A standard units nor greater than N/A standard units and shall be monitored daily with a grab sample.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts.

4. The discharge shall not cause the occurrence of a visible sheen on the surface of the receiving waters.

5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): the nearest accessible point after final treatment but prior to mixing with Outfall (002) or the receiving stream.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning October 22, 1991, and lasting until October 21, 1996, the permittee is authorized to discharge from outfall(s) serial number(s) 002 (Total Facility Discharge - Process Wastewater, Non-Contact Cooling Water and Stormwater Runoff).

   Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETER	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	kg/day (lbs/day)		Other Units (Specify)			
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow-M^3/day (MGD)	N/A	N/A	Report	Report	Continuous	Recorder
Temperature $^{o}C(^{o}F)$	N/A	N/A	N/A	41(105)	3 Days/Week	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored daily with a grab sample of the effluent.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts.

4. The discharge shall not cause the occurrence of a visible sheen on the surface of the receiving waters.

5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): the nearest accessible point after mixing with Outfall (001) but prior to mixing with the receiving stream.

6. No chemicals, such as chlorine, zinc or chromium shall be added to the cooling water without the prior written approval by the Office of Pollution Control in accordance with Part III.C. page 14 of 16.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharge in accordance with the following schedule:

   Upon permit issuance.

2. No later than 10 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1) **POSTMARKED NO LATER THAN THE 28TH DAY OF THE MONTH FOLLOWING THE COMPLETED REPORTING PERIOD. THE FIRST REPORT IS DUE ON DECEMBER 28, 1991.** Copies of these, and all other reports required herein, shall be signed in accordance with Sections 6 and 7 of the Mississippi Wastewater Permit Regulations, and shall be submitted to the Mississippi Environmental Quality Permit Board at the following address.

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL
P. O. Box 10385
Jackson, Mississippi 39289-0385

3. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(h) of the Federal Water Pollution Control Act, as amended.

4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

(a) The exact place, date, and time of sampling;
(b) The dates the analyses were performed;
(c) The person(s) who performed the analyses;
(d) The analytical techniques or methods used; and
(e) The results of all required analyses.

5. Records Retention

(a) All records and information resulting from the monitoring activities required by this permit (including all records of; analyses performed; calibration and maintenance of instrumentation; and recording from continuous monitoring instrumentation) shall be retained for a minimum of three (3) years, or longer if requested by the Permit Board.

(b) The permittee shall furnish to the Permit Board, upon request, copies of records required to be kept by this permit.

6. Definitions

(a) The "monthly average" (applicable to municipal and domestic permits), other than for fecal coliform bacteria, is the arithmetic mean of all samples collected in a one-month period. The monthly average for fecal coliform bacteria is the geometric mean of all samples collected in a one-month period. In computing the geometric mean, one (1) shall be substituted for sample results of zero.

(b) The "weekly average" (applicable to municipal permits), other than for fecal coliform bacteria, is the arithmetic mean of all the samples collected during a one-week period. The weekly average for fecal coliform bacteria is the geometric mean of all samples collected during a one-week period. In computing the geometric mean, one (1) shall be substituted for sample results of zero. For self-monitoring purposes the value to be reported is the single highest weekly average computed during a one-month period.

(c) The "daily average" (applicable to industrial permits), other than for fecal coliform bacteria, is the arithmetic mean of all samples collected in a one-month period. The daily average for fecal coliform bacteria is the geometric mean of all samples collected in a one-month period. In computing the geometric mean, the value one (1) shall be substituted for sample results of zero.

(d) The "daily maximum" (applicable to industrial and domestic permits), is the highest value recorded of any sample collected on any single day of the calendar month.

PART II

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions or treatment modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application. If such changes will not violate the effluent limitations specified in this permit, and upon written notice (in lieu of a new NPDES application) to the Mississippi Environmental Quality Permit Board, the permit may be modified to specify and limit any pollutants not previously limited.

2. Duty to Comply 40 CFR 122.41(a)

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, renovation and reissuance, or modification; or for denial of a permit renewal application.

3. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any provision specified in this permit, the permittee shall notify the Mississippi Environmental Quality Permit Board orally within 24 hours of becoming aware of such conditions. A written report shall also be provided within five (5) days of such time and shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

4. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. Bypassing

Any diversion from or bypass of wastewater collection and treatment facilities is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit.

The permittee shall notify the Mississippi Environmental Quality Permit Board orally of each such diversion or bypass within 24 hours of the diversion or bypass, or if the need for the bypass is known in advance, it shall submit prior notice, if possible, at least ten (10) days before the date of the bypass.

7. Upsets 40 CFR 122.41(n)

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in 40 CFR 122.41 (L)(6)(ii)(B) (24 hour notice of noncompliance).

(4) The permittee complied with any remedial measures required under 40 CFR 122.41 (d) (duty to mitigate).

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

8. Removed Substances

Solids, sludges, filter backwash, or other residuals removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent such materials from entering State waters and in a manner consistent with the Mississippi Solid Waste Disposal Act and the Federal Resource Conservation and Recovery Act.

9. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

a. In accordance with the Schedule of Compliance contained in Part I, provide an alternate power source sufficient to operate the wastewater collection and treatment facilities, or, if such alternate power source is not in existence, and no date for its implementation appears in Part I;

b. Provide a method whereby the effluent limitations contained in Part I shall be met upon the reduction, loss, or failure of the primary source of power to the wastewater collection and treatment facilities.

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Mississippi Environmental Quality Permit Board and the Regional Administrator of the U. S. Environmental Protection Agency and/or their authorized representatives, upon the presentation of credentials.

a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

This permit is not transferable to any person except after proper notice. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the Mississippi Environmental Quality Permit Board at least thirty (30) days in advance of the proposed transfer date. The notice should include a written agreement between the existing and new permittees containing a specific date for the transfer of permit responsibility, coverage, and liability.

3. Signatory Requirements 40 CFR 122.41(k)

All applications, reports, or information submitted to the Permit Board shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (1) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision-making function for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, representatively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

b. All reports required by the permit and other information requested by the Permit Board shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The written authorization is submitted to the Permit Board.

c. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Permit Board prior to or together with any reports, information, or applications.

d. Certification. Any person signing a document under paragraphs (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under the 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."

4. Availability of Records

Except for data determined to be confidential under the Mississippi Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of the Mississippi Department of Environmental Quality Office of Pollution Control.

5. Permit Modification

a. The permittee shall furnish to the Permit Board within a reasonable time any relevant information which the Permit Board may request to determine whether cause exists for modifying, revolving and reissuing, or terminating the permit, or to determine compliance with the permit.

b. Upon sufficient cause this permit may be modified, revoked, reissued, or terminated during its term.

c. The filing of a request by the permittee for a permit modification, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) established under Section 307(a) of the Federal Water Pollution Control Act.

7. Toxic Pollutants Notification Requirements

The permittee shall comply with the applicable provisions of 40 CFR 122.42.

8. Civil and Criminal Liability

a. Any person who violates a term, condition or schedule of compliance contained within this permit or the Mississippi Water Pollution Control Law is subject to the actions defined by law.

b. Except as provided in permit conditions on "Bypassing" and "Upsets" (Part II, A-6 and 7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

c. It shall not be the defense of the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

9. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Federal Water Pollution Control Act and applicable provisions of the Mississippi Water Pollution Control Law pertaining to spills of oil and hazardous materials.

10. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

11. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstance, and the remainder of this permit, shall not be affected thereby.

12. Expiration of Permit

The permittee shall not discharge after the expiration date of this permit unless he has submitted a completed application for reissuance no later than 180 days prior to the expiration date. The Head of the Office of Pollution Control may grant permission to submit an application later than this, but no later than the expiration date of the permit.

PART III

A. REOPENER CLAUSE

This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable effluent standard, limitation or stormwater regulation issued or approved under Section 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 402(p) of the Federal Water Pollution Control Act if the effluent standard, limitation or regulation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit.

B. CLOSURE REQUIREMENTS

Should the permittee decide to permanently close and abandon the premises upon which it operates, it shall so notify the Permit Board no later than 90 days prior to doing so. Accompanying this notification shall be a closure plan which describes how and when all manufactured products, by-products, raw materials, stored chemicals, and solid and liquid waste will be removed from the premises such that they will present no potential environmental hazard to the area. Abandonment of the site without providing proper notification as required herein, or without completing all aspects of the closure plan, will constitute a violation of this permit and may result in penalties of up to $25,000.

C. REQUIREMENTS REGARDING COOLING AND BOILER WATER ADDITIVES

Notification shall be made to the permitting authority in writing not later than sixty (60) days prior to initiating the addition of any chemical product to the cooling water and/or boiler water which is subject to discharge, other than those previously approved and/or used. Such notification should include, but not be limited to:

1. Name and composition of the proposed additive,
2. Proposed discharge concentration,
3. Dosage addition rates,
4. Frequency of use,
5. EPA registration, if applicable, and
6. Aquatic species toxicological data, if applicable.

Written approval must be received from the permitting authority prior to initiating use.

D. ACUTE BIOASSAY REQUIREMENTS

The Water Quality Standards of Mississippi require that all waters be free from substances in concentrations or combinations which are harmful to humans, animals, or aquatic life (State of Mississippi, Water Quality Criteria for Intrastate, Interstate and Coastal Waters, Section II.4. Minimum Conditions Applicable to All Waters, page 3, adopted March 22, 1990). In accordance with such requirements, the permittee is authorized to discharge from the combined outfall(s) 001 and 002 only in accordance with the following conditions:

1. The permittee shall perform 48-hour static definitive toxicity tests in accordance with Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms Third Edition, (EPA-600/4-85/013). Static tests will be conducted on a 24-hour composite sample of effluent. Less than 36 hours will elapse between sampling and the use of the sample.

   a. The permittee must use both the following organisms:

      (1) Pimephales promelas (fathead minnows)
      (2) Ceriodaphnia dubia (water fleas)

   b. Dilution water used for these tests shall consist of reagent grade water, defined as distilled or deionized water that does not contain substances which are toxic to the test organisms. Dilution water shall consist of reagent grade water to which the appropriate reagent grade salts have been added to make moderately hard dilution water according to Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/600/4-89/001). These dilution waters will be deemed acceptable if the control organisms in the toxicity tests meet the minimum EPA criteria for mortality.

2. The permittee shall conduct the first series of tests specified in part 1 above within 90 days of the issuance of the permit. The test shall be conducted at a frequency of once per six months for the first two years from the date of issuance. Based on results of the four tests, the Permit may be modified to included further testing requirements. Following the first year of testing, the permittee may petition the Mississippi Environmental Quality Permit Board for permission to use the most sensitive organism for the toxicity tests to be performed for the remainder of the permit life, if a clear trend in the toxic response exists in the test data. The results of the 48-hour static definitive bioassay tests shall be reported to the Mississippi Environmental Quality Permit Board on the next monthly discharge monitoring report.

3. If a 48-hour definitive toxicity test results in an LC50 value of less than 10.7%, the permittee shall immediately after the first 48-hour definitive toxicity test results are finalized perform a second 48-hour definitive toxicity test. The LC50 determinations from these tests shall be reported to the Mississippi Environmental Quality Permit Board within 10 working days after finalization of the results of each test.

4. In the event that the results of any 48-hour definitive toxicity test reveal that the LC50 of the permittee's effluent is less than 10.7%, then this finding will constitute a violation of Part I of this permit, and the permittee shall:

   a. Provide a schedule for the implementation of a Toxicity Reduction Evaluation Plan to reduce the toxicity of the waste discharge to safe levels. (Safe levels will be determined by the Mississippi Pollution Control Permit Board).

PERMIT RATIONAL

HERCULES INCORPORATED
MS0001830
HATTIESBURG, MISSISSIPPI
FORREST COUNTY

July 20, 1991

I. General Facility Information

1. Nature of Business: Manufacture of modified resins, rosin solutions and paper chemicals. SIC 2861, 2821.

2. Applicable Guidelines:

40 CFR Part 454 - Gum and Wood Chemicals Manufacturing Point Source Category:
Subpart C: Wood Rosin, Turpentine and Pine Oil.
Subpart E: Essential Oils.

40 CFR Part 428 - Rubber Manufacturing Point Source Category:
Subpart C: Solution Crumb Rubber.

3. Receiving Stream: Bowie River (7Q10 = 180 cfs). Hercules uses an average of 1.75 MGD from Bowie River as an intake source.

4. Operations Contributing Flow:

Process wastewater (001) = 1.0 MGD including 0.005 MGD stormwater runoff from process area. Contaminated stormwater is diverted into the wastewater treatment system.

Non-Contact Cooling Water (002) = 4.3 MGD which includes outfall 001 and stormwater runoff (0.01 MGD) from non-processing areas.

5. Wastewater Treatment Description: Sedimentation.

Floatation, neutralization and carbon adsorption.

II. Proposed Effluent Limitations:

Outfall (001): Process Wastewater, flow = 1.0 MGD

1. BOD_5: The Water Quality Monitoring Branch recommended the current limits for BOD_5.

Avg. = 67 mg/l, 2415 lbs/day

However, the Federal Guidelines would provide more stringent limits based on the following calculations:

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Rosins	289,700	454.C	1.10	2.08	319	603
Modified Resins	317,400	454.C	1.10	2.08	349	660
Essential Oils	15,600	454.E	12.0	22.7	187	354
Rubber	65,300	428.C	0.08	0.12	5.0	8
Miscellaneous (Paper Chemicals, etc.)	604,400	*	1.28	2.36	774	1426
			Total (lbs/day):		1634	3051

*Using the CFR Guidelines Weighted Avg:

BOD Avg.: 860/688,000 = 1.28/1000 lb
BOD Max.: 1625/688,000 = 2.36/1000 lb

Review of the Discharge Monitoring Reports for the last two years shows that the permittee shall be able to meet the categorical limits.

2. TSS: Existing limits are:

Avg. = 579 lbs/d , Max = 1648 lbs/d

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Rosins	289,700	454.C	.475	1.38	138	400
Modified Resins	317,400	454.C	.475	1.38	151	438
Essential Oils	15,600	454.E	3.11	9.01	49	141
Rubber	65,300	428.C	.16	.24	10	16
Miscellaneous (Paper Chemicals, etc.)	604,400	*	.51	1.45	308	876
			Total (lbs/day):		656	1871

*Using the CFR Guidelines Weighted Avg:

TSS Avg.: 348/688,000 = 0.51/1000 lb
TSS Max.: 995/688,000 = 1.45/1000 lb

Since the permittee consistently met the existing limits, then they will be kept unchanged.

3. Total Organic Carbon (TOC):

The applicable guidelines have no requirements for this parameter. However, due to material being present, current limits will be used.

Avg. = 2500 lbs/day , Max. = 3800 lbs/day

4. Phenol: Based on Water Quality Standards

Avg: (Conc. x 8.34 x 4.3 MGD = 0.102 x 8.34 x 120.6 MGD)

Avg = 2.86 mg/l

Existing limit = 3.3 lbs/d will be used

Max = (Conc. x 8.34 x 4.3 MGD = 0.3 mg/l x 8.34 x 120.6 MGD)

Max = 8.4 mg/l

Existing limit = 4.9 lbs/d will be used

5. Oil & Grease:

The applicable guidelines have no requirements for this parameter. The present mass limits were based on Avg = 10 mg/l and Max = 15 mg/l. The reduced current flow would reflect lower mass limit. However, dillution from the Bowie River (7Q10 = 116.3 MGD) allows for the existing mass limit.

Limits based on current flow:

Avg = 10 mg/l x 8.34 x 4.3 MGD = 259 lbs/d

Max = 15 mg/l x 8.34 x 4.3 MGD = 538 lbs/d

Proposed:

Dillution factor = (116.3 MGD + 4.3 MGD)/4.3 MGD

= 28.0

Avg = 660 lbs/d

Max = 9.90 lbs/d

6. Delnav:

Production of Delnav was discontinued in 1987.

The current Delnav data are essentially below the method sensitivity of one ppb. Therefore, this parameter will be removed from the permit.

Outfall (002): Non-Contact Cooling Water which combines with the process wastewater discharge on-site before leaving the plant.

Flow = 4.3 MGD (including the MGD from 001)

1. Flow monitoring

2. PH between 6.0 - 9.0 S.U.

3. Temperature present limits of 105^{O}F will be allowed due to high dilution in the Bowie River (7Q10 = 180 cfs)

III. Acute Bioassay Requirements:

Q(Total discharge) = 4.3 MGD

7Q10(Bowie River) = 180 cfs x 0.646 = 116.28 MGD

IWC = Qtot/(Qtot + 7Q10) x 100

= 4.3 MGD/(4.3 MGD + 116.3 MGD) * 100

IWC = 3.56%

For Acute Bioassay:

Effluent 48 hour LC50 > 3 * IWC

48 hour LC50 > 3 * 3.56%

48 hour LC50 shall not be less than 10.7%

BATEA Statement:

It's our Best Professional Judgement that the aforementioned limitations represent BATEA.

FACT SHEET

APPLICATION FOR
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE WASTEWATER TO WATERS
OF THE STATE OF MISSISSIPPI

Application No.: MS0001830 Date: July 15, 1991

1. SYNOPSIS OF APPLICATION

a. Name and Address of Applicant

Hercules Incorporated
West 7th Street
Hattiesburg, Mississippi 39401

b. Description of Applicant's Operation

Manufacture of modified resins, rosin solutions and paper chemicals.

c. Production Capacity of Facility

Modified Rosins	289,700 lbs/d
Modified Resins	317,400 lbs/d
Essential Oils	15,600 lbs/d
Rubber	65,300 lbs/d
Miscellaneous (paper chemicals, etc.)	604,400 lbs/d

d. Description of Existing Pollution Abatement Facilities

Sedimentation, floatation, neutralization, and carbon absorption.

e. Applicant's Receiving Waters

Bowie River

f. Description of Discharges

Process wastewater (001): 1.0 MGD including 0.05 MGD treated stormwater runoff non-contact cooling water (002): 4.3 MGD which includes Outfall (001) and stormwater runoff.

2. PROPOSED EFFLUENT LIMITATIONS

Outfall 001

Parameter	Avg(lbs/d)	Max(lbs/d)
BOD_5	1634	3051
TSS	579	1648
TOC	2500	3800
Oil & Grease	660	990
Phenol	3.3	4.9
Flow (MGD)	Report	Report

Outfall 002

Flow Monitoring

Temperature , Max = $105^{o}F$

PH between 6-9 S.U.

3. MONITORING REQUIREMENTS

The applicant will be required to monitor regularly for flow and those parameters limited in Section 2 above with sufficient frequency to ensure compliance with the permit conditions. Frequency, methods of sampling, and reporting dates will be specified in the final permit.

4. PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS

Upon permit issuance

5. WATER QUALITY STANDARDS AND EFFLUENT STANDARDS APPLIED TO THE DISCHARGE

Federal guidelines were used to derive limitations for BOD_5 and TSS.

6. PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

a. Comment Period

The Mississippi Office of Pollution Control Permit Board proposes to issue an NPDES permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

Interested persons are invited to submit written comments on the permit application or on the Permit Board's proposed determinations to the following address:

Mississippi Department of Environmental Quality
Office of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39289-0385

All comments received prior to August 30, 1991, will be considered in the formulation of final determinations with regard to this application.

b. Public Hearing

The Permit Board may hold a public hearing if there is a significant degree of public interest in a proposed permit or group of permits. Public notice of such a hearing will be circulated in newspapers in the geographical area of the discharge and to those on the agency's mailing list at least 30 days prior to the hearing.

Following the public hearing, the Permit Board may take such modifications in the terms and conditions of the proposed permits as may be appropriate and shall issue or deny the permit. Notice of issuance or denial will be circulated to those who participated in the hearing and to appropriate persons on the mailing list.

c. Issuance of the Permit When No Public Hearing is Held

If no public hearing is held, and, after review of the comments received, the Permit Board's determinations are substantially unchanged, the permit will be issued and become effective immediately.

If no public hearing is held, but there have been substantial changes, public notice of the Permit Board's revised determinations will be made. Following a 30-day comment period, the permit will be issued and become effective immediately, unless a public hearing is granted.

Raw Materials

The basic raw materials for each of the product subcategories are as follows:

Product	Raw Material Source
Char and Charcoal Briquets	Hardwood and softwood scraps
Gum Rosin and Turpentine	Crude "gum" oleoresin from the sapwood of living trees
Wood Rosin, Turpentine, and Pine Oil	Wood stumps and other resinous woods from cut over forest
Tall Oil Rosin, Pitch, and Fatty Acids	By-product crude tall oil from the Kraft process
Essential Oils	Scrap wood fines, twigs, [illegible], or roots of select woods or plants
Rosin Derivatives	Rosin products from gum, wood, and tall oil chemicals
Sulfate Turpentine	Low boiling vapors condensed from the Kraft pulping of pine wood

Variations in raw materials within each subcategory do occur. For example, seasonal changes cause variations in crude gum composition. Late in the growing season, crude gum is termed scrape, which typically contains less turpentine and more rosin. Where variations in raw materials require additional processing to achieve product quality, additional wastes are generated.

Because of these factors, the Agency concluded that raw materials are a basis for subcategorization. Variations in raw wastewater generation due to seasonal changes are reflected in the analysis of long term wastewater characteristics and were determined not to be a factor requiring further subcategorization.

Plant Age

Manufacturers continuously upgrade and modernize their operations and equipment as it becomes necessary, thus the actual age of production facilities cannot be determined accurately. Furthermore, the age of the equipment does not necessarily affect wastewater generation. Operation and maintenance of the equipment are more important factors. Therefore, plant age is not a basis for subcategorization.

United States Environmental Protection Agency
Effluent Guidelines Division
WH-552
Washington, DC 20460

EPA 440/1-79/076-b
December 1979

Water and Waste Management

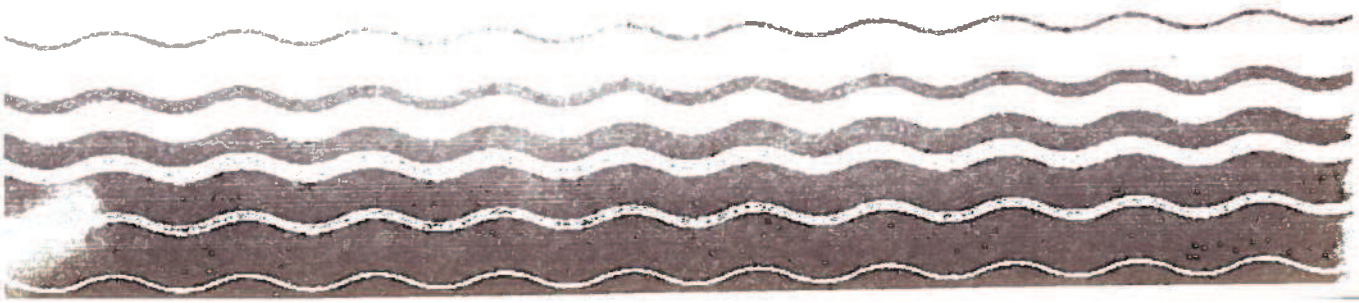
EPA

Proposed

Development Document for Effluent Limitations Guidelines and Standards for the

Gum and Wood Chemicals Manufacturing

Point Source Category



PRODUCTS	lbs/DAY	CFR	B.O.D. lb/1000 lb AVG	B.O.D. lb/1000 lb MAX	B.O.D. lbs/DAY AVG	B.O.D. lbs/DAY MAX	T.S.S. lb/1000 lb AVG	T.S.S. lb/1000 lb MAX	T.S.S. lbs/DAY AVG	T.S.S. lbs/DAY MAX
MODIFIED ROSIN	289,700	454.32	1.10	2.08	319	603	.476	1.38	138	400
MODIFIED RESINS	317,400	454.32	1.10	2.08	349	660	.475	1.38	151	438
ESSENTIAL OILS	15,600	[illegible]	12.0	22.7	187	354	3.11	9.01	49	141
RUBBER	65,300	[illegible]	.42	.60	26	39	.65	.98	42	64
[illegible] ([illegible], etc.)	[illegible]	*		2.41	774	1,457	.55	1.53	[illegible]	919
TOTAL	1,272,400				1,655	3,113			712	1962

* FOR CFR GUIDELINES "AVG" IS FOR BOD AVG 881/688,000 = 1.28 / 1000 lb
BOD MAX 1650/688,000 = 2.41 / 1000 lb
TSS AVG 380/688,000 = 0.55 / 1000 lb
TSS MAX 1043/688,000 = 1.52 / 1000 lb

PUBLIC NOTICE

Mississippi Environmental Qu lity Permit Board
P. O. Box 10385
Jackson, MS 39289-0385
Telephone No. (601) 961-5171

August 1, 1991

Hercules Incorporated in Hattiesburg, Ms., Forrest County has applied to the Mississippi Environmental Qu lity Permit Board for the reissuance of an NPDES Permit to discharge treated process wastewater and non contact cooling water from the facility's wastewater treatment system into the Bowie River. The applicant's operation is manufacture of gum and wood products, industrial organic chemicals and synthetic resins. Two discharges are described in the application.

The environmental impact of this project has been evaluated and the staff of the Permit Board believes that, with proper environmental constraints and limitations on the applicant, this project will operate within all State and Federal environmental laws and standards. Therefore, the staff of the Board has preliminarily decided, based on available information, to recommend to the Board that a permit be issued containing numerous environmental regulatory constraints specifically stated in the draft permit. However, before proceeding further with the staff evaluation, public comments are being solicited. The staff recommendation to the Board, as well as the Board decision, will be made only after a thorough consideration of all public comments.

Persons wishing to comment upon or object to the proposed determinations are invited to submit comments in writing to Taher Diab at the Permit Board's address shown above, no later than August 30, 1991. All comments received by that date will be considered in the formulation of final determinations regarding the application. A public hearing will be held if the Permit Board finds a significant degree of public interest in the proposed permit.

The Permit Board is limited in the scope of its analysis to environmental impact. Any comments relative to zoning or economic and social impacts are within the jurisdiction of local zoning and planning authorities and should be addressed to them.

Additional details about the application and the proposed determination, a sketch showing the location of the discharge, and a copy of the draft permit are available by writing or calling Taher Diab at the Permit Board's address and telephone number shown above. Also, this and other information is available for review and copying during normal business hours at the Southport Center Building located at 2380 Highway 80 West, Jackson, MS.

Please bring the foregoing to the attention of persons whom you know will be interested.

MISSISSIPPI BUREAU OF POLLUTION CONTROL
WATER QUALITY MONITORING BRANCH
WASTELOAD ALLOCATION WORKSHEET AND RECOMMENDATION FOR NPDES LIMITS

FACILITY ID

1. Facility Name: HERCULES INC
2. NPDES Permit No: MS00 01830 Outfall Serial No: 001
3. County: FORREST
4. Name of Receiving Water Body: R.M. 1.1 of BOWIE RIVER
5. Classification of Receiving Water Body F&W

WATER QUALITY MODEL INPUTS

6. Discharger Flow (MGD) 4.3 * Source (a) Permit (b) 201 Plan
   (cfs) 6.67 (c) Consultant
   (d) Other - APPLICATION
7. Stream 7Q10 (cfs) 100 → 180 cfs Source: LAKES (a) Gaged ___ (b) Ungaged ___
8. Reaction Rates: (a) State/EPA Model Assumptions (b) Field Data
   (c) ___
9. CBODu/ BOD_5: 1.5
10. Stream Slopes Taken From (a) Quad maps (b) Field Data
11. Stream Temperature (°C): 30
12. Velocity (fps): 0.81 - 1.51 (a) State/EPA Model Assumptions
    (b) Time of Travel Study
13. Characteristics of Receiving Waters: ___
14. Other Significant Point Sources (Name & Flow): HATTIESBURG 2.0 MGD

WATER QUALITY MODEL OUTPUTS/AWFHATTI

15. Model Outputs-(mg/l)-

	Months	BOD_5 lb/day *	NH_3-N lbs/day * *	D.O.	Min.Stream D.O.
Winter					
Summer					
Annual	ALL	2415 (67)	286-90 (8)	2.0	5.901
	ALL	2415 (67)	466.2 (13)	2.0	5.860

WATER QUALITY MONITORING BRANCH RECOMMENDATION FOR NPDES PERMIT

16. NPDES Permit Recommendation is:

Months	Avg.Flow (mgd)	Avg.BOD5 (mg/l)	Avg.NH3-N (mg/l)	Min.D.O. (mg/l)	Avg.F.C. (col/100ml)	Avg.Cl2 (mg/l)
Winter NOV-APR					29,000	
Summer MAY-OCT					200	
Annual	4.3	67	13	2		0.17

17. Other ___

18. Comments: * PERMIT LIMIT; * * APPLICATION DATA

Modeller: R. Miller Date: 5/8/91
Reviewer: ___ Date: ___
Branch Chief: R. Reed Date: 6/3/91

INDUSTRIAL - NPDES PERMIT REISSUANCES

Weems Brothers Seafood eff	Harrison County	MS0001759
D & L Incorporated eff	Covington County	MS0028312
Hercules Incorporated eff	Forrest County	MS0001830
Lafayette County Industrial Park	Lafayette County	MS0043079
G. E. Plastics	Hancock County	MS0036994

INDUSTRIAL - NPDES PERMIT REVOCATIONS

Lido Veal	Forrest County	MS0046671
Old Salem Packing Co., Inc.	Pearl River County	MS0033642

INDUSTRIAL - NEW SOURCE PRETREATMENT PERMIT

Tecumseh Products Company	Lee County	MSP090601

INDUSTRIAL - PRETREATMENT PERMIT REISSUANCE

Hunter Engineering Company	Hinds County	MSP090222

INDUSTRIAL - NEW SOURCE STATE OPERATING PERMITS

Valley Gravel Company	Lowndes County	OPC 91-071
Richard Richardson Veal	Lamar County	OPC 91-070
Golden Triangle Sand & Gravel	Lowndes County	OPC 91-067
Alvie Dunaway Dairy	Lamar County	OPC 91-069

INDUSTRIAL - FOR DISCUSSION

Henry & Biloxi Seafood eff	Harrison County

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

NOV 26 1991

REF: 4WM-WPEB

Mr. Barry S. Royals, Chief
Surface Water Quality Branch
Water Division
Bureau of Pollution Control
Mississippi Dept. of Environmental Quality
Post Office Box 10385
Jackson, Mississippi 39289

RE: NPDES Overview

Dear Mr. Royals:

We have completed our review of the following draft NPDES permits and have no objections to the permits as drafted.

Name	Number
Piper Impact, Inc.	MS0000931
Kimberly-Clark	MS0035882
Riveria Heights	MS0039772
Hercules, Inc.	MS0001880
D & L Incorporated	MS0028312

We request that we be afforded an additional review opportunity only if significant changes are made to the permits prior to issuance or if significant public comments on the permits are received.

If you have any questions, please contact Karrie-Jo Shell of my staff at 404/347-3866.

Sincerely yours,

Tammy B. Moore

Tammy B. Moore, Chief
South Area Permits Unit
Water Permits and Enforcement Branch
Water Management Division

1st DRAFT

DATE: July 19, 91

State of Mississippi
Water Pollution Control
PERMIT

TO DISCHARGE WASTEWATER IN ACCORDANCE WITH THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

THIS CERTIFIES THAT

HERCULES INCORPORATED
HATTIESBURG, MISSISSIPPI

has been granted permission to discharge wastewater into

Bowie River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof. This permit is issued in accordance with the provisions of the Mississippi Water Pollution Control Law (Section 49-17-1 et seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder, and under authority granted pursuant to Section 402(b) of the Federal Water Pollution Control Act.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: DRAFT

Expires:

Permit No. MS0001830

PART I

DRAFT

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning , and lasting until , the permittee is authorized to discharge from outfall(s) serial number(s) **001 (Process Wastewater and Treated Stormwater Runoff)**.

Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETER	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	kg/day (lbs/day)		Other Units (Specify)			
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow-M^3/day (MGD)	N/A	N/A	Report	Report	Continuous	Recorder
Biochemical Oxygen Demand (5-Day)	741(1634)	1384(3051)	N/A	N/A	3 Days/Week	24-Hr. Composite
Total Suspended Solids, Net	263(579)	748(1648)	N/A	N/A	3 Days/Week	24-Hr. Composite
Total Organic Carbon, Net	1134(2500)	1724(3800)	N/A	N/A	3 Days/Week	24-Hr. Composite
Oil and Grease	118(259) 660	244(538) 990	N/A	N/A	3 Days/Week	Grab
Phenol	1.5(3.3)	2.2(4.9)	N/A	N/A	3 Days/Week	Grab

2. The pH shall not be less than **N/A** standard units nor greater than **N/A** standard units and shall be monitored **daily with a grab sample**.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts.

4. The discharge shall not cause the occurrence of a visible sheen on the surface of the receiving waters.

5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): **the nearest accessible point after final treatment but prior to mixing with Outfall (002) or the receiving stream.**

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning , and lasting until , the permittee is authorized to discharge from outfall(s) serial number(s) **002 (Total Facility Discharge - Process Wastewater, Non-Contact Cooling Water and Stormwater Runoff)**.

   Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETER	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	kg/day (lbs/day)		Other Units (Specify)			
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow-M^3/day (MGD)	N/A	N/A	Report	Report	Continuous	Recorder
Temperature $^{o}C(^{o}F)$	N/A	N/A	N/A	41(105)	3 Days/Week	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored daily with a grab sample of the effluent.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts.

4. The discharge shall not cause the occurrence of a visible sheen on the surface of the receiving waters.

5. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): the nearest accessible point after mixing with Outfall (001) but prior to mixing with the receiving stream.

6. No chemicals, such as chlorine, zinc or chromium shall be added to the cooling water without the prior written approval by the Office of Pollution Control in accordance with Part III.C. page 14 of 16.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharge in accordance with the following schedule:

   Upon permit issuance.

2. No later than 10 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1) **POSTMARKED NO LATER THAN THE 28TH DAY OF THE MONTH FOLLOWING THE COMPLETED REPORTING PERIOD. THE FIRST REPORT IS DUE ON** . Copies of these, and all other reports required herein, shall be signed in accordance with Sections 6 and 7 of the Mississippi Wastewater Permit Regulations, and shall be submitted to the Mississippi Environmental Quality Permit Board at the following address.

Dec. 28, 91

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL
P. O. Box 10385
Jackson, Mississippi 39289-0385

3. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(h) of the Federal Water Pollution Control Act, as amended.

4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

(a) The exact place, date, and time of sampling;
(b) The dates the analyses were performed;
(c) The person(s) who performed the analyses;
(d) The analytical techniques or methods used; and
(e) The results of all required analyses.

5. Records Retention

(a) All records and information resulting from the monitoring activities required by this permit (including all records of; analyses performed; calibration and maintenance of instrumentation; and recording from continuous monitoring instrumentation) shall be retained for a minimum of three (3) years, or longer if requested by the Permit Board.

(b) The permittee shall furnish to the Permit Board, upon request, copies of records required to be kept by this permit.

6. Definitions

(a) The "monthly average" (applicable to municipal and domestic permits), other than for fecal coliform bacteria, is the arithmetic mean of all samples collected in a one-month period. The monthly average for fecal coliform bacteria is the geometric mean of all samples collected in a one-month period. In computing the geometric mean, one (1) shall be substituted for sample results of zero.

(b) The "weekly average" (applicable to municipal permits), other than for fecal coliform bacteria, is the arithmetic mean of all the samples collected during a one-week period. The weekly average for fecal coliform bacteria is the geometric mean of all samples collected during a one-week period. In computing the geometric mean, one (1) shall be substituted for sample results of zero. For self-monitoring purposes the value to be reported is the single highest weekly average computed during a one-month period.

(c) The "daily average" (applicable to industrial permits), other than for fecal coliform bacteria, is the arithmetic mean of all samples collected in a one-month period. The daily average for fecal coliform bacteria is the geometric mean of all samples collected in a one-month period. In computing the geometric mean, the value one (1) shall be substituted for sample results of zero.

(d) The "daily maximum" (applicable to industrial and domestic permits), is the highest value recorded of any sample collected on any single day of the calendar month.

PART II

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions or treatment modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application. If such changes will not violate the effluent limitations specified in this permit, and upon written notice (in lieu of a new NPDES application) to the Mississippi Environmental Quality Permit Board, the permit may be modified to specify and limit any pollutants not previously limited.

2. Duty to Comply 40 CFR 122.41(a)

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, renovation and reissuance, or modification; or for denial of a permit renewal application.

3. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any provision specified in this permit, the permittee shall notify the Mississippi Environmental Quality Permit Board orally within 24 hours of becoming aware of such conditions. A written report shall also be provided within five (5) days of such time and shall contain the following information:

a. A description of the discharge and cause of noncompliance; and

b. The period of noncompliance, including exact dates and times; or if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

4. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. Bypassing

Any diversion from or bypass of wastewater collection and treatment facilities is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit.

The permittee shall notify the Mississippi Environmental Quality Permit Board orally of each such diversion or bypass within 24 hours of the diversion or bypass, or if the need for the bypass is known in advance, it shall submit prior notice, if possible, at least ten (10) days before the date of the bypass.

7. Upsets 40 CFR 122.41(n)

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in 40 CFR 122.41 (L)(6)(ii)(B) (24 hour notice of noncompliance).

(4) The permittee complied with any remedial measures required under 40 CFR 122.41 (d) (duty to mitigate).

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

8. Removed Substances

Solids, sludges, filter backwash, or other residuals removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent such materials from entering State waters and in a manner consistent with the Mississippi Solid Waste Disposal Act and the Federal Resource Conservation and Recovery Act.

9. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

a. In accordance with the Schedule of Compliance contained in Part I, provide an alternate power source sufficient to operate the wastewater collection and treatment facilities, or, if such alternate power source is not in existence, and no date for its implementation appears in Part I;

b. Provide a method whereby the effluent limitations contained in Part I shall be met upon the reduction, loss, or failure of the primary source of power to the wastewater collection and treatment facilities.

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Mississippi Environmental Quality Permit Board and the Regional Administrator of the U. S. Environmental Protection Agency and/or their authorized representatives, upon the presentation of credentials.

a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

This permit is not transferable to any person except after proper notice. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the Mississippi Environmental Quality Permit Board at least thirty (30) days in advance of the proposed transfer date. The notice should include a written agreement between the existing and new permittees containing a specific date for the transfer of permit responsibility, coverage, and liability.

3. Signatory Requirements 40 CFR 122.41(k)

All applications, reports, or information submitted to the Permit Board shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (1) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision-making function for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, representatively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

b. All reports required by the permit and other information requested by the Permit Board shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The written authorization is submitted to the Permit Board.

c. Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Permit Board prior to or together with any reports, information, or applications.

d. Certification. Any person signing a document under paragraphs (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under the 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."

4. Availability of Records

Except for data determined to be confidential under the Mississippi Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of the Mississippi Department of Environmental Quality Office of Pollution Control.

5. Permit Modification

a. The permittee shall furnish to the Permit Board within a reasonable time any relevant information which the Permit Board may request to determine whether cause exists for modifying, revolving and reissuing, or terminating the permit, or to determine compliance with the permit.

b. Upon sufficient cause this permit may be modified, revoked, reissued, or terminated during its term.

c. The filing of a request by the permittee for a permit modification, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) established under Section 307(a) of the Federal Water Pollution Control Act.

7. Toxic Pollutants Notification Requirements

The permittee shall comply with the applicable provisions of 40 CFR 122.42.

8. Civil and Criminal Liability

a. Any person who violates a term, condition or schedule of compliance contained within this permit or the Mississippi Water Pollution Control Law is subject to the actions defined by law.

b. Except as provided in permit conditions on "Bypassing" and "Upsets" (Part II, A-6 and 7), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

c. It shall not be the defense of the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

9. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Federal Water Pollution Control Act and applicable provisions of the Mississippi Water Pollution Control Law pertaining to spills of oil and hazardous materials.

10. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

11. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstance, and the remainder of this permit, shall not be affected thereby.

12. Expiration of Permit

The permittee shall not discharge after the expiration date of this permit unless he has submitted a completed application for reissuance no later than 180 days prior to the expiration date. The Head of the Office of Pollution Control may grant permission to submit an application later than this, but no later than the expiration date of the permit.

PART III

A. REOPENER CLAUSE

This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable effluent standard, limitation or stormwater regulation issued or approved under Section 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 402(p) of the Federal Water Pollution Control Act if the effluent standard, limitation or regulation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit.

B. CLOSURE REQUIREMENTS

Should the permittee decide to permanently close and abandon the premises upon which it operates, it shall so notify the Permit Board no later than 90 days prior to doing so. Accompanying this notification shall be a closure plan which describes how and when all manufactured products, by-products, raw materials, stored chemicals, and solid and liquid waste will be removed from the premises such that they will present no potential environmental hazard to the area. Abandonment of the site without providing proper notification as required herein, or without completing all aspects of the closure plan, will constitute a violation of this permit and may result in penalties of up to $25,000.

C. REQUIREMENTS REGARDING COOLING AND BOILER WATER ADDITIVES

Notification shall be made to the permitting authority in writing not later than sixty (60) days prior to initiating the addition of any chemical product to the cooling water and/or boiler water which is subject to discharge, other than those previously approved and/or used. Such notification should include, but not be limited to:

1. Name and composition of the proposed additive,
2. Proposed discharge concentration,
3. Dosage addition rates,
4. Frequency of use,
5. EPA registration, if applicable, and
6. Aquatic species toxicological data, if applicable.

Written approval must be received from the permitting authority prior to initiating use.

D. OTHER STANDARD CONDITIONS

None.

D. ACUTE BIOASSAY REQUIREMENTS

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The Water Quality Standards of Mississippi require that all waters be free from substances in concentrations or combinations which are harmful to humans, animals, or aquatic life (State of Mississippi, Water Quality Criteria for Intrastate, Interstate and Coastal Waters, Section II.4. Minimum Conditions Applicable to All Waters, page 3, adopted March 22, 1990). In accordance with such requirements, the permittee is authorized to discharge from the Combined (Add) outfall(s) 001 and 002 only in accordance with the following conditions:

~~1.~~ ~~The permittee shall submit any existing toxicity data for review by the Mississippi Bureau of Pollution Control within 30 days of the effective date of this permit.~~

1. 2. The permittee shall perform 48-hour static definitive toxicity tests in accordance with Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms Third Edition, (EPA-600/4-85/013), Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Third Edition, (EPS/600/4-89/001), and Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms , (EPA/600/4-87/028). Static tests will be conducted on a 24-hour composite sample of effluent. Less than 36 hours will elapse between sampling and the use of the sample.

a. ~~If the Mississippi Office of Pollution Control determines the receiving stream is freshwater~~ the permittee must use both the following organisms:

(1) Pimephales promelas (fathead minnows)
(2) Ceriodaphnia dubia (water fleas)

b. If the Mississippi Office of Pollution Control determines the receiving stream is marine or estuarine the permittee must use both the following organisms:

(1) Mysidopsis bahia (mysid shrimp)
(2) Menidia beryllina (inland silversides)

b. c. Dilution water used for these tests shall consist of reagent grade water, defined as distilled or deionized water that does not contain substances which are toxic to the test organisms. ~~For freshwater tests,~~ dilution water shall consist of reagent grade water to which the appropriate reagent grade salts have been added to make moderately hard dilution water according to Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/600/4-89/001). ~~For estuarine testing, dilution water shall consist of reagent grade water to which hypersaline brine made according to Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms (EPA/600/4-87/028) has been added to achieve a salinity of 20 parts per thousand.~~ These dilution waters will be deemed acceptable if the control organisms in the

toxicity tests meet the minimum EPA criteria for mortality.

2 3. The permittee shall conduct the first series of tests specified in part 1 above within 90 days of the issuance of the permit. The test shall be conducted at a frequency of once per six months for ~~the life of the permit, provided that the acute LC50 is greater than or equal to 18.7%. After the first year of testing, the frequency of monitoring will be reduced to once per six months for the life of the permit.~~ Following the first year of testing, the permittee may petition the Mississippi Environmental Quality Permit Board for permission to use the most sensitive organism for the toxicity tests to be performed for the remainder of the permit life, if a clear trend in the toxic response exists in the test data. The results of the 48-hour static definitive bioassay tests shall be reported to the Mississippi Environmental Quality Permit Board on the next quarterly discharge monitoring report.

3. 4. If a 48-hour definitive toxicity test results in an LC50 value of less than 18.7%, the permittee shall immediately after the first 48-hour definitive toxicity test results are finalized perform a second 48-hour definitive toxicity test. The LC50 determinations from these tests shall be reported to the Mississippi Environmental Quality Permit Board within 10 working days after finalization of the results of each test.

4. 5. In the event that the results of any 48-hour definitive toxicity test reveal that the LC50 of the permittee's effluent is less than 18.7%, then this finding will constitute a violation of Part I of this permit, and the permittee shall:

a. Provide a schedule for the implementation of a Toxicity Reduction Evaluation Plan to reduce the toxicity of the waste discharge to safe levels. (Safe levels will be determined by the Mississippi Pollution Control Permit Board).

In addition to the specific conditions of this permit, the permittee shall comply with all applicable conditions of 40 CFR 122.7 and 40 CFR 122.61. (2/5/99)

DRAFT

PERMIT RATIONAL

HERCULES INCORPORATED
MS0001830
HATTIESBURG, MISSISSIPPI
FORREST COUNTY

July 1, 1991

I. General Facility Information

1. Nature of Business: Manufacture of modified resins, rosin solutions and paper chemicals. SIC 2861, 2821.

2. Applicable Guidelines:

40 CFR Part 454 - Gum and Wood Chemicals Manufacturing Point Source Category:
Subpart C: Wood Rosin, Turpentine and Pine Oil.
Subpart E: Essential Oils.

40 CFR Part 428 - Rubber Manufacturing Point Source Category:
Subpart C: Solution Crumb Rubber.

3. Receiving Stream: Bowie River (7Q10 = 180 cfs). Hercules uses an average of 1.75 MGD from Bowie River as an intake source.

4. Operations Contributing Flow:

Process wastewater (001) = ~~0.1~~ 1.0 MGD including 0.005 MGD stormwater runoff from process area. Contaminated stormwater is diverted into the wastewater treatment system.

Non-Contact Cooling Water (002) = 4.3 MGD which includes outfall 001 and stormwater runoff (0.01 MGD) from non-processing areas.

5. Wastewater Treatment Description: Sedimentation.

Floatation, neutralization and carbon adsorption.

II. Proposed Effluent Limitations:

Outfall (001): Process Wastewater, flow = 1.0 MGD

1. BOD_5: The Water Quality Monitoring Branch recommended the current limits for BOD_5.

Avg. = 67 mg/l, 2415 lbs/day

However, the Federal Guidelines would provide more stringent limits based on the following calculations:

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Rosins	289,700	454.C	1.10	2.08	319	603
Modified Resins	317,400	454.C	1.10	2.08	349	660
Essential Oils	15,600	454.E	12.0	22.7	187	354
Rubber	65,300	428.C	0.08	0.12	5.0	8
Miscellaneous (Paper Chemicals, etc.)	604,400	*	1.28	2.36	774	1426
			Total (lbs/day):		1634	3051

*Using the CFR Guidelines Weighted Avg:

BOD Avg.: 860/688,000 = 1.28/1000 lb
BOD Max.: 1625/688,000 = 2.36/1000 lb

Review of the Discharge Monitoring Reports for the last two years shows that the permittee shall be able to meet the categorical limits.

2. TSS: Existing limits are:

Avg. = 579 lbs/d , Max = 1648 lbs/d

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Rosins	289,700	454.C	.475	1.38	138	400
Modified Resins	317,400	454.C	.475	1.38	151	438
Essential Oils	15,600	454.E	3.11	9.01	49	141
Rubber	65,300	428.C	.16	.24	10	16
Miscellaneous (Paper Chemicals, etc.)	604,400	*	.51	1.45	308	876
			Total (lbs/day):		656	1871

*Using the CFR Guidelines Weighted Avg:

TSS Avg.: 348/688,000 = 0.51/1000 lb
TSS Max.: 995/688,000 = 1.45/1000 lb

Since the permittee consistently met the existing limits, then they will be kept unchanged.

3. Total Organic Carbon (TOC):

The applicable guidelines have no requirements for this parameter. However, due to material being present, current limits will be used.

Avg. = 2500 lbs/day , Max. = 3800 lbs/day

4. Phenol: Based on Water Quality Standards

Avg: (Conc. x 8.34 x 4.3 MGD = 0.102 x 8.34 x 120.6 MGD)

Avg = 2.86 mg/l

Existing limit = 3.3 lbs/d will be used

Max = (conc. x 8.34 x 4.3 MGD = 0.3 mg/l x 8.34 x 120.6 MGD)

Max = 8.4 mg/l

Existing limit = 4.9 lbs/d will be used

5. Oil & Grease:

The applicable guidelines have no requirements for this parameter. The present mass limits were based on Avg = 10 mg/l and Max = 15 mg/l. The reduced current flow would reflect lower mass limit. However, dillution from the Bowie River (7Q10 = 116.3 MGD) allows for the existing mass limit.

Limits based on current flow:

Avg = 10 mg/l x 8.34 x 4.3 MGD = 259 lbs/d

Max = 15 mg/l x 8.34 x 4.3 MGD = 538 lbs/d

Proposed:

Dillution factor = (116.3 MGD + 4.3 MGD)/4.3 MGD

= 28.0

Avg = 660 lbs/d

Max = 9 90 lbs/d

6. Delnav:

Production of Delnav was discontinued in 1987.

The current Delnav data are essentially below the method sensitivity of one ppb. Therefore, this parameter will be removed from the permit.

Outfall (002): Non-Contact Cooling Water which ~~continues~~ Combines with the process wastewater discharge on-site before leaving the plant.

Flow = 4.3 MGD (including the MGD from 001)

1. Flow monitoring

2. PH between 6.0 - 9.0 S.U.

3. Temperature present limits of 105°F will be allowed due to high dilution in the Bowie River (7Q10 = 180 cfs)

III. Acute Bioassay Requirements:

Q(Total discharge) = 4.3 MGD

7Q10(Bowie River) = 180 cfs x 0.646 = 116.28 MGD

IWC = ~~1~~Qtot/(Qtot + 7Q10) x 100

→ = ~~1~~4.3 MGD/(4.3 MGD + 116.3 MGD) * 100

IWC = 3.56%

For Acute Bioassay:

Effluent 48 hour LC50 > 3 * IWC

48 hour LC50 > 3 * 3.56%

48 hour LC50 shall not be less than 10.7%

BATEA Statement:

It's our Best Professional Judgement that the aforementioned limitations represent BATEA.

Hercules Incorporated
MS0001830
Hattiesburg, MS.
Forrest County

Draft: July 1, 1991

I. General Facility Information:

1. Nature of Business: Manufacture of modified resins, rosin solutions and paper chemicals. SIC 2861, 2821.

2. Applicable Guidelines:

40 CFR Part 454 - Gum and Wood Chemicals Manufacturing Point Source Category:
Subpart C: Wood Rosin, Turpentine and Pine Oil.
Subpart E: Essential Oils.

40 CFR Part 428 - Rubber Manufacturing Point Source Category:
Subpart C: Solution Crumb Rubber.

3. Receiving Stream: Bowie River (7Q10 = 100 cfs). Hercules uses an average of 1.75 MGD from Bowie River as an intake source.

4. Operations Contributing Flow:

Process Wastewater (001): 1.0 MGD including a 0.05 MGD [illegible] from process area. Contaminated Stormwater is diverted into the Wastewater treatment System.

Non-Contact Cooling Water (002): 4.3 MGD which includes outfall 001 and Stormwater runoff (0.01 MGD) from non-processing areas.

5. Wastewater Treatment Description: Sedimentation, Clarification, neutralization and carbon adsorption.

II. Proposed Effluent Limitations:

Outfall (001): Process Wastewater, Flow = 1.0 MGD

1. BOD5: The Water Quality Monitoring Branch recommended the current limits for BOD:

Avg = 67 mg/l, 2415 lbs/day

However, the Federal Guidelines would provide more stringent limits based on the following calculations:

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Resins	289,700	454.C	1.10	2.08	319	603
Plasticized Resins	317,400	454.C	1.10	2.08	349	660
Essential Oils	15,600	454.E	12.0	22.7	187	354
Rubber	65,300	428.C	0.08	0.12	5.0	8
Misc. (Paper Chems, etc)	301,100	*	1.28	2.36	774	1426
				Total (lbs/d):	1634	3051

* BOD AVG : 860/688,000 = 1.28/1000 lb
BOD MAX : 1625/688,000 = 2.36/1000 lb

Review of the Discharge Monitoring Reports for the last two years shows that the permittee should be able to meet the categorical limits.

2. TSS: Existing limits are:

Avg = 579 lbs/d, Max = 1648 lbs/d

→ Cont.

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Resins	289,700	454.C	.475	1.38	138	400
Modified Resins	217,400	454.C	.475	1.38	151	438
Essential Oils	15,600	454.E	3.11	9.01	49	141
Rubber	65,300	428-C	.16	.24	10	16
Misc. (Fragrance Chem., etc)	604,400	*	.51	1.45	308	876
				Total Chlorides:	656	1871

* For CFR Guidelines "Avg" is for: TSS Avg = 348/688,000 = 0.51/1000 lb
TSS Max: 995/688,000 = 1.45/1000 lb

Since the Permittee consistently met the existing limits, then they will be kept unchanged.

3. Total Organic Carbon (TOC):

The applicable guidelines have no requirements for this parameter. However, due to material being present, current limits will be used.

Avg = 2500 lbs/day , Max = 3500 lbs/day

4. Phenol: Based on Water Quality Standards,

Avg = 0.102 mg/l x 8.34 x 4.3 MGD = 3.65 lbs/d

Existing limit = 3.3 lbs/d will be used

Max = 0.3 mg/l x 8.34 x 4.3 MGD = 10.75 lbs/d

Existing limit = 4.9 lbs/d will be used

5. Oil & Grease :

The applicable guidelines have no requirements for this parameter. BPJ will be used.

Avg = 10 mg/l × 8.34 × 4.3 MGD = 259 #/day

Max = 15 mg/l × 8.34 × 4.3 MGD = 538 #/d

6. Delnav :

Production of Delnav was discontinued in 1987. The current Delnav data are essentially below the method sensitivity of the EPA. Therefore, the parameter will be removed from the permit.

Outfall (002) : Non-Contact cooling water which combines with the process wastewater [illegible] on-site before leaving the plant.

Flow = 4.3 MGD (including 1.0 MGD from [illegible])

1. Flow monitoring

2. PH between 6.0 – 9.0 S.U.

3. Temperature present limit of 105 F will be allowed [illegible] [illegible] [illegible] in the Region [illegible] ([illegible])

III. Acute Bioassay Requirements :

Q (Total discharge) = 4.3 MGD

7Q10 (Bowie River) = 100 cfs × 0.646 = 64.6 MGD

IWC = (Qtot / Qtot + 7Q10) × 100

= (4.3 MGD / 4.3 MGD + 64.6 MGD) × 100

IWC = 6.24 %

IWC = 3.57 %

7Q Acute Bioassay :

Effluent 96 hr LC50 ≥ 3 × IWC

LC50 = 10.69

96 hr LC50 ≥ 3 × 6.24 %

96 hr LC50 shall not be less than 18.7 %

CATEA Treatment :

It is our Best Professional Judgement that the [illegible] limitations represent BPT [illegible]

PERMIT RATIONAL

DRAFT

HERCULES INCORPORATED
MS0001830
HATTIESBURG, MISSISSIPPI
FORREST COUNTY

July 1, 1991

I. General Facility Information

1. Nature of Business: Manufacture of modified resins, rosin solutions and paper chemicals. SIC 2861, 2821.

2. Applicable Guidelines:

40 CFR Part 454 - Gum and Wood Chemicals Manufacturing Point Source Category:
Subpart C: Wood Rosin, Turpentine and Pine Oil.
Subpart E: Essential Oils.

40 CFR Part 428 - Rubber Manufacturing Point Source Category:
Subpart C: Solution Crumb Rubber.

3. Receiving Stream: Bowie River (7Q10 = 100 cfs). Hercules uses an average of 1.75 MGD from Bowie River as an intake source.

180

4. Operations Contributing Flow:

Process wastewater (001) = 0.1 MGD including 0.005 MGD stormwater runoff from process area. Contaminated stormwater is diverted into the wastewater treatment system.

Non-Contact Cooling Water (002) = 4.3 MGD which includes outfall 001 and stormwater runoff (0.01 MGD) from non-processing areas.

5. Wastewater Treatment Description: Sedimentation.

Floatation, neutralization and carbon adsorption.

II. Proposed Effluent Limitations:

Outfall (001): Process Wastewater, flow = 1.0 MGD

1. BOD_5: The Water Quality Monitoring Branch recommended the current limits for BOD_5.

Avg. = 67 mg/l, 2415 lbs/day

However, the Federal Guidelines would provide more stringent limits based on the following calculations:

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Rosins	289,700	454.C	1.10	2.08	319	603
Modified Resins	317,400	454.C	1.10	2.08	349	660
Essential Oils	15,600	454.E	12.0	22.7	187	354
Rubber	65,300	428.C	0.08	0.12	5.0	8
Miscellaneous (Paper Chemicals, etc.)	604,400	*	1.28	2.36	774	1426
			Total (lbs/day):		1634	3051

*Using the CFR Guidelines Weighted Avg:

BOD Avg.: 860/688,000 = 1.28/1000 lb
BOD Max.: 1625/688,000 = 2.36/1000 lb

Review of the Discharge Monitoring Reports for the last two years shows that the permittee shall be able to meet the categorical limits.

2. TSS: Existing limits are:

Avg. = 579 lbs/d , Max = 1648 lbs/d

Products	lbs/day	CFR	lb/1000 lb Avg	lb/1000 lb Max	lb/1000 lb Avg	lb/1000 lb Max
Modified Rosins	289,700	454.C	.475	1.38	138	400
Modified Resins	317,400	454.C	.475	1.38	151	438
Essential Oils	15,600	454.E	3.11	9.01	49	141
Rubber	65,300	428.C	.16	.24	10	16
Miscellaneous (Paper Chemicals, etc.)	604,400	*	.51	1.45	308	876
			Total (lbs/day):		656	1871

*Using the CFR Guidelines Weighted Avg:

TSS Avg.: 348/688,000 = 0.51/1000 lb
TSS Max.: 995/688,000 = 1.45/1000 lb

Since the permittee consistently met the existing limits, then they will be kept unchanged.

3. Total Organic Carbon (TOC):

The applicable guidelines have no requirements for this parameter. However, due to material being present, current limits will be used.

Avg. = 2500 lbs/day , Max. = 3800 lbs/day

Replace

4. Phenol: Based on Water Quality Standards

Avg. = 0.102 mg/l x 8.34 x 4.3 MGD = 3.65 lbs/d

Existing limit = 3.3 lbs/d will be used

Max. = 0.3 mg/l x 8.34 x 4.3 MGD = 10.75 lbs/d

Existing limit = 4.9 lbs/d will be used

Replace

5. Oil & Grease:

The applicable guidelines have no requirements for this parameter. BPJ will be used.

Avg. = 10 mg/l x 8.34 x 4.3 MGD = 259 #/day

Max. = 15 mg/l x 8.34 x 4.3 MGD = 538 #/day

6. Delnav:

Production of Delnave was discontinued in 1987.

The current Delnave data are essentially below the method sensitivity of one ppb. Therefore, this parameter will be removed from the permit.

Outfall (002): Non-Contact Cooling Water which continues with the process wastewater discharge on-site before leaving the plant.

Flow = 4.3 MGD (including the MGD from 001)

1. Flow monitoring

2. PH between 6.0 - 9.0 S.U.

3. Temperature present limits of 105^{O}F will be allowed due to high dilution in the Bowie River (7Q10 = ~~100~~ 180 cfs)

III. Acute Bioassay Requirements:

Q(Total discharge) = 4.3 MGD

7Q10(Bowie River) = ~~100~~ 180 cfs x 0.646 = ~~64.6~~ 116.28 MGD

IWC = (Qtot/Qtot + 7Q10) x 100

= (4.3 MGD/4.3 MGD + ~~64.6~~ 116.3 MGD) * 100

IWC = ~~6.24%~~ 3.56 %

For Acute Bioassay:

Effluent ~~96~~ 48 hour LC50 > 3 * IWC

~~96~~ 48 hour LC50 > 3 * ~~6.24%~~ 3.56 %

~~96~~ 48 hour LC50 shall not be less than ~~18.7%~~ 10.7 %

BATEA Statement:

It's our Best Professional Judgement that the aforementioned limitations represent BATEA.

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. 2040-0086 Approval expires 7-31-88

FORM 1 GENERAL

EPA

ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F MSD008182081 D

LABEL ITEMS

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

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

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

II. POLLUTANT CHARACTERISTICS

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

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		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 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

FORREST

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

CONTINUE ON REVERSE


HATTIESBURG
Riverside
GULF
BOWIE
RIVER
GRAVEL PITS
Gravel Pit
Claypits
Substa
Radio Tower
Cem
City Cem
Tr Pk
Greens Creek
Creek
W3
W1
WT
Roseland Park Cem
Jones Sch
Eureka Playground
Eureka Sch
Lamar Sch
Jeff Davis Sch
Radio Tower (WFOR)
ICG
BM 159
BM 186
BM 151
BM 161
BM 162
BM 179
Mabel
Miller
Quinn
Pearl
Hardy
Lane
Main St Sch
High Sch
Gordons
Jaycee Park
Hawkins Jr High Sch
Oaklawn Cem
Radio Tower
Courthouse
PO
Kamper Park
Camp Sch
O'Ferral
Concart
Camp
Mamie
Adeline
Corinne
Pine
Woodley Sch
County Hospital
Sacred Heart Sch
Southern
Elizabeth
Rebecca
Walthall Sch
Deason
Laurel
Mc Innis
Williams
Methodist Hospital
Katie
Manning
Mimosa
Timothy
Emerald
Fuller St
Arcadia
East St
Mc Innis
Marie
May
Duke
Cypress
Bethune Sch
Ashford
East Side Ave
Rowan High Sch
Magnolia
Tuscan
Franklin
Cherry
Edwards
Spencer
Dabbs
John
William Carey College
Pineview
Radio Tower
32
33
34
3
8
9
10
11
15
17
42
11
SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

Please print or type in the unshaded areas only.

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

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	1L
				2A	2K
				4A	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)*

CONTINUE ON REVERSE

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 (ACTUAL MONTH) a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	CFR	2. AFFECTED OUTFALLS *(list outfall numbers)*
289,700	lbs/DAY	MODIFIED ROSINS	454 - C	001
317,400	lbs/DAY	MODIFIED RESINS	454 - C	001
15,600	lbs/DAY	ESSENTIAL OILS	454 - C	001
65,300	lbs/DAY	RUBBER	428 - C	001
604,400	lbs/DAY	MISCELLANEOUS (PAPER SIZING AGENTS, DEFOAMERS, ROSIN AMINE, SURFACTANTS)	454	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 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 (MAXIMUM CAPABILITY) a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	2. AFFECTED OUTFALLS *(list outfall numbers)*
801,000	lbs/DAY	MODIFIED ROSINS	001
347,500	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

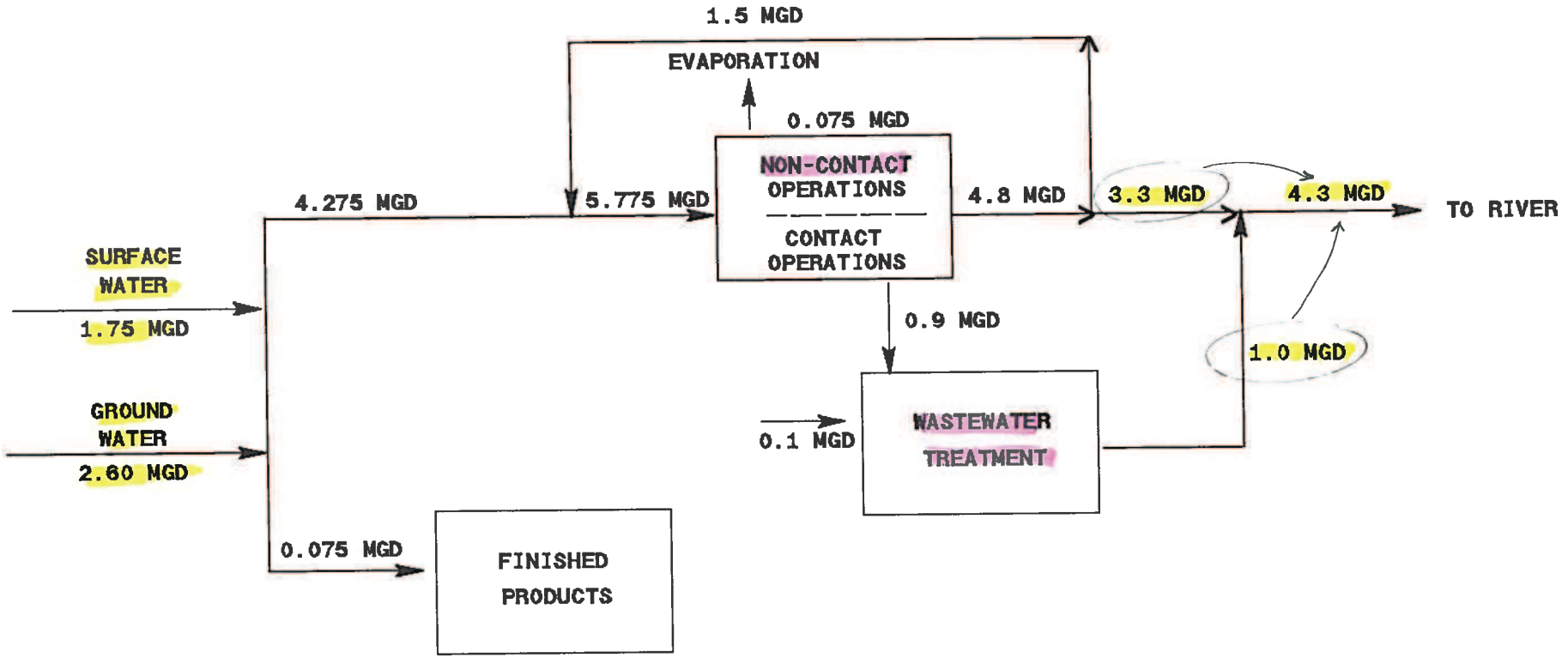
A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, 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 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

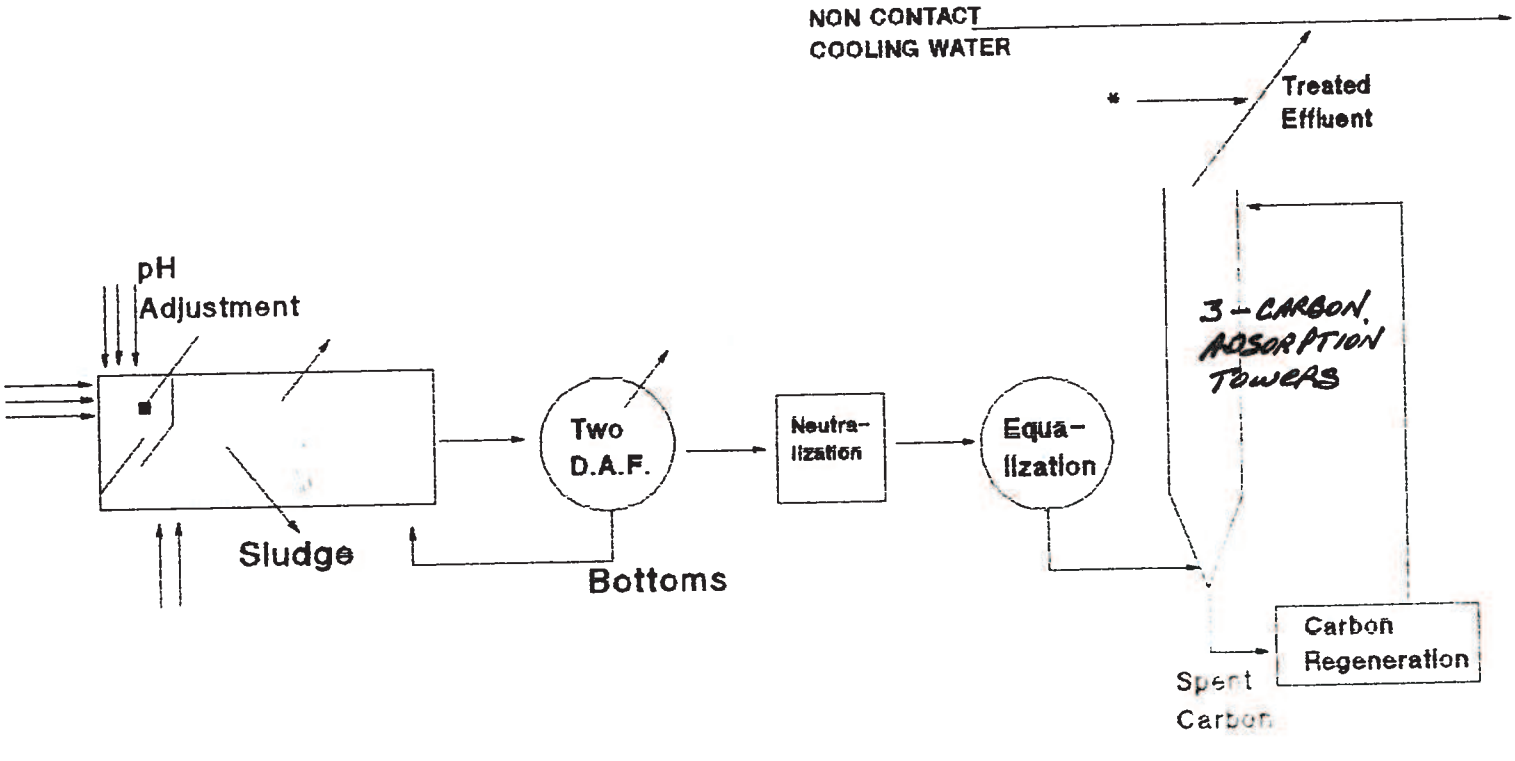
FIGURE - 3



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

CSJ014

WASTEWATER AREA



CSJ006

EPA I.D. NUMBER (copy from Item 1 of Form 1)
MS0008182081

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.

D. 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 byproduct?

☐ YES *(list all such pollutants below)*

☒ NO *(go to Item VI-B)*

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

OUTFALL NO. 001

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

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
a. Bromide (24959-67-9)		X							1					
b. Chlorine, Total Residual		X							1					
c. Color	X		85						1					
d. Fecal Coliform														
e. Fluoride (16984-48-8)		X							1					
f. Nitrate–Nitrite *(as N)*	X		6.8	68					1	mg/l	lbs/DAY			

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

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

CONTINUED FROM PAGE 3 OF FORM 2-C

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

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GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
2V. Methylene Chloride (75-09-2)			X							1					
3V. 1,1,2,2-Tetrachloroethane (79-34-5)			X							1					
4V. Tetrachloroethylene (127-18-4)			X							1					
5V. Toluene (108-88-3)		X		0.792	7.92					1	mg/l	lbs/day			
6V. 1,2-Trans-Dichloroethylene (156-60-5)			X							1					
7V. 1,1,1-Trichloroethane (71-55-6)			X							1					
8V. 1,1,2-Trichloroethane (79-00-5)			X							1					
9V. Trichloroethylene (79-01-6)			X							1					
0V. Trichlorofluoromethane (75-69-4)			X							1					
1V. 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					

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OUTFALL NUMBER: 001

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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
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			X							1					
23B. 3,3'-Dichlorobenzidine (91-94-1)			X							1					
24B. Diethyl Phthalate (84-66-2)			X							1					
25B. Dimethyl Phthalate (131-11-3)			X							1					
26B. Di-N-Butyl Phthalate (84-74-2)			X							1					
27B. 2,4-Dinitrotoluene (121-14-2)			X							1					
28B. 2,6-Dinitrotoluene (606-20-2)			X							1					
29B. Di-N-Octyl Phthalate (117-84-0)			X							1					
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)			X							1					
31B. Fluoranthene (206-44-0)			X							1					
32B. Fluorene (86-73-7)			X							1					
33B. Hexachlorobenzene (118-74-1)			X							1					
34B. Hexachlorobutadiene (87-68-3)			X							1					
35B. Hexachlorocyclopentadiene (77-47-4)			X							1					
36B. Hexachloroethane (67-72-1)			X							1					
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)			X							1					
38B. Isophorone (78-59-1)			X							1					
39B. Naphthalene (91-20-3)			X							1					
40B. Nitrobenzene (98-95-3)			X							1					
41B. N-Nitrosodimethylamine (62-75-9)			X							1					
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X							1					

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	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	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
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							/					