

HATTIESBURG, MISSISSIPPI 3940

August 6, 1979

Mississippi Air & Water Pollution Control Commission P. O. Box 827 Jackson, Mississippi 39205

Attn: Mr. Dwight Wylie

Gentlemen:

FACILITY PERMIT NO. 08000-0001-021-PILOT PLANT

As required by additional condition No. 14, the attached table summarizes our Pilot Plant work from January 1 through June 30, 1979. We will continue to submit the required documentation on a semi-annual basis.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Attachment

| Type Vent | No Flow | No Flow | No Flow | No Flow | No Flow | No Flow | No Flow |
|-----------------------------------|--|---|--------------------|-------------------------------|---|-----------------------------------|------------------|
| Emissions Control Equipment | Total | Reflux Condenser | Total Condenser | Total Condenser | Total Condenser | Total Condenser | Barometric |
| Assessment of Potential Emissions | | Vapors of Reaction | Caustic Vapors | Caustic Vapors | Water and Methanol of Reacton | None | Nil |
| Type Products Produced | Amine | Copolymer | Soaps | Soaps | DMT Residue esters | Resin Blend | Distilled Resin |
| Raw Materials Used | Stearic Acid Ethylene Diamine Silicone | Acrylic Acid 50% Acrylamide Sol'n. Methyldiallyl- ammonium Acetate Ammonium Persulfate Water | 70% Rosin Soap | 50% Vinsol Soap 5011 Water | Residues from manufacture of Dimethylterephthalate 2 Ethylhexanol/zincacetate/propylene | Yarmor F Pine Oil Vinsol Resin | Rosin |
| Duration of Tests (Days) | 78 | 4 | a | Н | F | н | 77 |
| Exp. Equip. Name Kettles | (A) | (B) | (Ω) | (D) | (E) | (F) | <u>Still</u> (A) |





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

January 5, 1979

Mississippi Air & Water Pollution Control Commission P. O. Box 827 Jackson, Mississippi 39205

Attn: Mr. Jerry Subberfield

Gentlemen:

FACILITY PERMIT NO. 08000-0001-021-PILOT PLANT

As required by additional condition No. 14, the attached table summarizes our Pilot Plant work from July 1 through December 31, 1978. We will continue to submit the required documentation on a semi-annual basis.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Attachment

| | | | | | | | |) | | ្តជូ |
|-------------------------|----------------------|--|---|--|-------------------------------|-------|--------------------------|----------|-----------------------|---|
| | Type Vent | No Flow | No | No Flow | No Flow | | No Flow | | None | Hydrogen Purge |
| f Emissions | Control Equipment | Total Condenser | Reflux Flow | Total Condenser | Total Condenser | | Barometric Condensers | | None | None |
| Assessment of Emissions | Potential Emissions | Water of Reaction | Vapors of Reaction Condenser | Caustic Vapors | Caustic Vapors | | Nil | | None | Hydrogen |
| Type | Produced | Amide | Copolymer | Soaps | Soaps | 91 | Distilled Resin | | Hydrogenated Resin | Hydrogenated Resin Solution |
| | Raw Materials Used | Stearic Acid Ethylene Diamine Silicone | 50% Acrylamide Sol'n. Methyldiallyl- ammonium Acetate Ammonium Persulfate Water | Potassium Hydroxide Vinsol Resin Water | 50% Vinsol Soap 5011 Water | | Rosin | | Rosin Hydrogen | Hydrocarbon Resin p-Menthane Kydrogen |
| Duration of Tests | (Days) | 24 | CV | н | Н | | 28 | | ħħ | 35 |
| Exp. Equip. Name | Kettles | (A) | (B) | (0) | (D) | Still | (A) | Reactors | (A) | (B) |

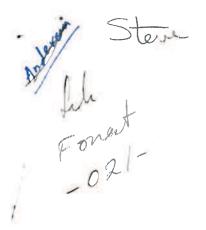
FILE COPY

Ale - Hercules, Inc., Facility No. 110-0800-00001 Steve West Annual Inspection

May 26, 1978

I inspected the above facility on April 18, 1978. This facility manue Linspected the above racility on April 15, 19/5. This racility is national of organic formulation products from wood stump this inspection was the use factures a number of organic formulation products from wood stump particular interest during this inspection was the use of the Herclor plant chloring in the Delnav facility. resins, Of Particular interest during this inspection was the use or phosgene in the Herclor plant, chloring in the Delnay facility, annonia in the hydrogen furnace. Phosgene is stored in one phosgene in the Herclor plant, chlorine in the Delnav Facility, ammonation containers and the hydrogen furnace. Phosgene is stored in one chlorine in the RAD plant and the hydrogen furnace. Phosgene is stored in one to containers and normally there are 15 to 20 tons on site. Chlorine linknown amount of ton containers and normally there are 15 to 20 tons on site. Chlorine MH and H are on hand. The four processes described above will be is brought in by rail in 10-20,000 gallon tank cars. Unknown amount pursued in more detail. The four processes described above will be noted.

During the inspection no deficiencies were





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

July 3, 1978



JUL 7 1978

AIR & WATER POLLUTION CONTROL COMMISSION STATE OF MISSISSIPPI

Mississippi Air & Water Pollution Control Commission P. O. Box 827 Jackson, Mississippi 39205

Attn: Mr. Jerry Subberfield

Gentlemen:

FACILITY PERMIT NO. 08000-00001-021-PILOT PLANT

As required by additional condition No. 14, the attached Table summarizes our Pilot Plant work from January 1, 1978 through June 30, 1978. We will continue to submit the required documentation on a semi-annual basis.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Attachment

| Type Vent | No Flow | No Flow | No Flow | No Flow | No Flow | No Flow | No Flow |
|---|--|---|--------------------------|--|-------------------------------|-------------------------------|--------------------------|
| Control Equipment | Total | Reflux Condenser | Total Condenser | Total Condenser | Total Condensr | Total Condenser | Barometric Condensers |
| Assessment of Emissions Control Potential Emissions Equipment | Water of Reaction | 7 Vapors of Reaction | Methanol Vapors | Caustic Vapors | Solvent Vapors | Caustic Vapors | Nil |
| Type Products Produced | Amide | Co-Polymer | Resin Solution | Soaps | Resin Solution | Soaps | Distilled Resin |
| Raw Materials Used | Stearic Acid Ethylene Diamine Silicone | 50% Acrylamide Sol'n. Acrylic Acid Ammonium Persulfate Water | Vinsol Resin Methanol | Potassium Hydroxide Vinsol Resin Water | Melhi Resin Lactol Spirits | 50% Vinsol Soap 5011 Water | Rosin |
| Duration of Tests (Days) | CJ. | - | н | н | a | н | 25 |
| Exp. Equip. Name Kettles | (A) | (B) | (0) | (D) | (E) | (F) | Still (A) |





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

March 28, 1978



MAR 3 0 1978

AIR & WATER POLLUTION CONTROL COMMISSION STATE OF MISSISSIPPI

Mississippi Air & Water Pollution Control Commission P. O. Box 827 Jackson, Mississippi 39205

Attention: Mr. Jerry Stubberfield

Gentlemen:

Facility Permit No. 08000-00001-021-Pilot Plant

As required by additional condition No. 14, the attached Table summarizes our Pilot Plant work from July 1, 1977 through December 31, 1977. We will continue to submit the required documentation on a semi-annual basis.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Senior Chemical Engineer

CSJ:hj

Attachment

| | Type | | No-flow | No-flow | | H ₂ Purge | | No-flow |
|-------------------------|------------------------|--------|--|---|----------|---|-------|--------------------------|
| Assessment of Emissions | Control Equipment | | Total Condenser | Total Condenser | | None | | Barometric Condensers |
| | Potential Emissions | | Water of Reaction | Water of Reaction | | Hydrogen | | n Nij |
| Type | Produced | | Amide | Resins | | Hydrogenated Resin Sol'n | | Distilled Resin |
| Raw | Used | | Stearic Acid Ethylene Diamine Silicone | Rosin Maleic Anhydride Glycerine Pentaerythritol | | Hydrocarbon Resin Hydrogen P-menthane Isopar H | | Rosin |
| Duration of Tests | (Days) | | 33 | ស | | 7 | | 20 |
| Experimental Fourthment | Name | Kettle | (A) | (p) | Reactors | (A) | Still | (A) |

File - Hercules, Inc., Facility No. 110-0800-00001 Steve West

Annual Inspection

May 26, 1978

I inspected the above facility on April 18, 1978. This facility manufactures a number of organic formulation products from wood stump resins. Of particular interest during this inspection was the use of phosgene in the Herclor plant, chlorine in the Delnav facility, ammonia in the RAD plant and the hydrogen furnace. Phosgene is stored in one ton containers and normally there are 15 to 20 tons on site. Chlorine is brought in by rail in 10-20,000 gallon tank cars. Unknown amount of NH₂ and H₂ are on hand. The four processes described above will be pursued in more detail. During the inspection no deficiencies were noted.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

RAY TRIBBLE CHAIRMAN MONEY

JAMES W. CARRAWAY VICE CHAIRMAN BASSFIELD

BOARD OF HEALTH JOE D. BROWN

KENNETH COBB LAMBERT

CHARLES W. ELSE YAZOO CITY

GAME & FISH COMMISSION BARRY O. FREEMAN

OIL & GAS BOARD QUINCY R. HODGES

HERMIT A. JONES CANTON

TO:

Steve West

FROM:



GLEN WOOD, JR., EXECUTIVE DIRECTOR P. O. BOX 827 - ROBERT E. LEE BUILDING JACKSON, MISSISSIPPI 39205 (601) 354-2550

COMMISSIONERS

MARINE CONSERVATION COMMISSION CHARLES H. LYLES

BOARD OF WATER COMMISSIONERS JACK PEPPER

JOE STONE HATTIESBURG

ASSOCIATE MEMBERS

STATE PARK SYSTEM WILLIAM M. BARNETT

A & I BOARD HAROLD A. CROSS

GEOLOGICAL SURVEY W. H. MOORE

ACT.

CODE

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Wayne Alford 🔏

| AG (Re | ENC gio | | 1 | OUN' | | | S | OUR | CE I | NUM | BER | E | M. 1 | PT. |
|-----------|------------|---|---|------|---|-----|---|-----|------|-----|-----|----|------|-----|
| | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 1 | 2 | 3 | 4 | 5 | 6 | . 7 | 8 | 9 | 10, | 11 | 12 | 13 | 14 | 15 |

KEY DATA:

May 16, 1978

(Col. 54 thru 59)

CARD

7

SUBJECT:

Hercules

W. 7th St.

Hattiesburg, Mississippi

PERSON CONTACTED:

INSPECTION DATE:

Charles Jordan

FACILITY MANAGER:

Unknown



MISSISSIPP AIR & WATER POLLUTION CONTROL MISSION IBLE EMISSIONS EVALUATION RECO

DATE: V.E. OBSERVER: PLANT NAME: V.E. CERTIFICATION NO.: ADDRESS: CITY: CERTIFICATION EXPIRATION: TIME SET NO. OPACITY MISSION POINT: END SUM START AVERAGE RECEIVED BY: INITIAL FINAL DISTANCE TO DISCHARGE DIRECTION TO DISCHARGE HEIGHT OF OBSERVATION POINT SECONDS* HEIGHT OF DISCHARGE 0 15 30 45 MIN.* PLUME COLOR 0 1 PLUME BACKGROUND WATER VAPOR IN PLUME? 3 4 WIND DIRECTION 0 WIND SPEED 1 AMBIENT TEMPERATURE 3 DISCHARGE TEMPERATURE 4 5 SKY CONDITIONS 0 2 DIAGRAM OF OBSERVER/DISCHARGE POINT 3 4 REMARKS:

^{*}IF READING TIME INTERVAL NOT AS SHOWN, SPECIFY IN REMARKS

MISSISSIPP AIR & WATER POLLUTION CONTROL MISSION IBLE EMISSIONS EVALUATION RECO DATE: PLANT NAME: V.E. OBSERVER: V.E. CERTIFICATION NO.: ADDRESS: CITY: CERTIFICATION EXPIRATION: TIME SET NO. OPACITY EMISSION POINT: SUM START END RECEIVED BY: AVERAGE INITIAL FINAL

DISTANCE TO DISCHARGE DIRECTION TO DISCHARGE HEIGHT OF OBSERVATION POINT _____ HEIGHT OF DISCHARGE

| | 1 | A control of the cont | | | |
|-------------------------------------|-------|--|----|----|----|
| | MIN.* | 0 | 15 | 30 | 45 |
| PLUME COLOR | 0 | | | | |
| LUME BACKGROUND | 1 | | | | |
| LIGHT DIRECTORY | 2 | | | | |
| VATER VAPOR IN PLUME? | 3 | | | | |
| THE PERSON | 4 | | | | |
| VIND DIRECTION | 5 | | | | |
| VIND SPEED | 0 | | | | |
| | 1 | | | | |
| AMBIENT TEMPERATURE | 2 | | | | |
| | 3 | | | | |
| DISCHARGE TEMPERATURE | 4 | | | | |
| SKY CONDITIONS | 5 | | | | |
| | 0 | | | | |
| | 1 | | | | |
|)IAGRAM OF OBSERVER/DISCHARGE POINT | 2 | | | | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | - 4 | | | |
| | | | | , | |

REMARKS:

SECONDS*

*IF READING TIME INTERVAL NOT AS SHOWN, SPECIFY IN REMARKS

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES
JACK PEPPER



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
[601] 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

Please note that under State Regulations a permit becomes invalid if the process or facility is modified in any significant fashion which will alter the rate or composition of air pollution emissions to the atmosphere. If such action is contemplated, a new construction permit application must be submitted to this agency.

New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Ichael O. Saar

MOS:sr

Enclosures

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Herdules, Incorporated West 7th Street
Hattiesburg, Mississippi

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Paracol Plant

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| Issued this_ | 8th | day of March | , 19 <u>77</u> . |
|--------------|-----------|--------------|--|
| | | | TION CONTROL COMMISSION Live Director |
| Expires | 8th | day ofMarch | , 19 |
| | 0800-0000 | 01-035 | № 2362 |

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 035 (Paracol Plant)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

EMISSIONS SUMMARY FOR PERMIT DETERMINATION

| REY DATA ////O/ 10/8/0/C/ 10/0/0/0/// 10/3/5/ Agency County Source Empt |
|--|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Inc. |
| ADDRESS PO. Box 1937 |
| Hattierburg, Ms. 39401 |
| SITE LOCATION & West - th St. Hatliechung |
| TYPE PLANT OR PROCESS Paracol Plant |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: ()PM ()S0 $_2$ ()H $_2$ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) () Facility making application () Outside Consultant |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| |
| |

Hercules, Inc. Renewal of Permit to Gerato 110-0800 - 00001-035

Process: Paracol Plant

Process wt: 1.9 tomoth

Control Devices: More

Operating Ichedule 24 hr/dy

365 dys/yr.

allowable Emission. 6.3# Chr

actual Emission: More detected

Recommendaction: I save permit to operate with odor condition attached

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES
JACK PEPPER



GLEN WOOD, JR. EXECUTIVE DIRECTOR
P. O BOX 827 - ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205

(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

Please note that under State Regulations a permit becomes invalid if the process or facility is modified in any significant fashion which will alter the rate or composition of air pollution emissions to the atmosphere. If such action is contemplated, a new construction permit application must be submitted to this agency.

New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

achael O. Saan

MOS:sr

Enclosures

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 034 (Column 5 - Tall Oil Plant)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street Hattlesburg, Mississippi



has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Column 5-Tall Oil Plant

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| Issued this 8th | day ofMarch | , 19 |
|----------------------|--------------------|--------------------------|
| | AIR AND WATER POLL | UTION CONTROL COMMISSION |
| | Ex | ecutive Director |
| Expires 8th | day ofMarch | , 19 . |
| Facility No. 0800-00 | 001-034 | N. 10 |

ADDITIONAL CONDITION IS ATTACHED

№ 2361

EMISSIONS SUMMARY FOR PERMIT DETERMINATION

| Agency County Source Empt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules, Dne. |
| ADDRESS P.O. Box 1937 |
| Hattiechung Mo. 39401 |
| SITE LOCATION De West 7th St. Hattiesburg, Mr. |
| TYPE PLANT OR PROCESS Column 5- Tall Oil Plant |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: ()PM ()S02 ()H2S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| COMMENTS: |
| |

Hercules, Inc.
Renewal of Cermit to Operate
110-0800-00001-034

Process: Tolumn 5- Tall Bil Plant

Process wt: 3.7 tom/hr

Control Devices : More

. . . .

Operating Schedule: 24 hrs/day

365 days/y

allowable Emissions; 9.9#/h

actual Emissions: More detected

Recommendation; Process is vented into the fiebox of the boiler. Issue permit to operate with order condition attacked.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD

COMMISSIONERS

J. E. HOBGOOD

JACK PEPPER

JOE STONE

CHARLES H. LYLES

GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 * ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
[601] 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

Please note that under State Regulations a permit becomes invalid if the process or facility is modified in any significant fashion which will alter the rate or composition of air pollution emissions to the atmosphere. If such action is contemplated, a new construction permit application must be submitted to this agency.

New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Tichael O. Saan

MOS:sr

Enclosures

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Synthetic Pine Oil Facility

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws 1966 ch 258) and the regulations or standards adopted and promulgated thereunder:

| Issued this 8th | day.ofMarch | , 19 ⁷⁷ | |
|-----------------------|-------------------|---------------------------|-------------|
| | AIR AND WATER POL | LUTION CONTROL COMMISSION | NC |
| | E | Executive Director | _ |
| Expires 8th | day of | , 19 80 . | |
| Facility No. 0800-000 | | Nº 23 | 36 0 |

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 033 (Synthetic Pine Oil Facility)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

EMISSIONS SUMMARY FOR PERMIT DETERMINATION

| Agency County Source Empt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules, Inc. |
| ADDRESS P.O. Box 1937 |
| Hattiesburg Mrs. 39401 |
| SITE LOCATION (West 7th St. Hattiesburg, Ms. |
| TYPE PLANT OR PROCESS Synthetic Pine Oil Facility |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| |
| COMMENTS: |
| |

Hercules, Inc. Renewal of Permit to Operate 110-0800-00001-033

Process: Synthetic Pine Oil Facility

Process wt: 1.8 tons/yr

Control Devices: Mone

Operating Schedule: 24 hrs/dy

365 dy/ys.

allowable Emissions: 6.1# Ch

actual Emissions: More visible

Recommendation: I some permit to operate with odor condition attached.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS
RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD

CHARLES H. LYLES

JACK PEPPER

JOE STONE



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Tachael O. Saan

MOS:sr

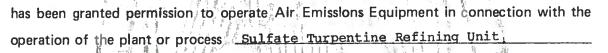
Enclosures

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That
Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment of alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966 ch. 258) and the regulations or standards adopted and promulgated thereunder.

| | Service Services | A CONTRACTOR OF THE PERSON OF | A STATE OF THE STA | a series of the | A. T. | | |
|-------------|-------------------------|---|--|---|------------|--------------|---------|
| Issued this | 8th | day of _ | March | Sales Comment | , 19 _77 | _· | |
| | E) | AIRAN | ID WATER | POLLUTIO | ON CONTRO | L COMMISSION | N >. |
| | | | | Executive | e Director | 0 | |
| Expires | 8th | . day of | March | | , 19 80 | · | |
| Facility No | . <u>0800-00001-0</u> 3 | 32 | | | | NI0 - 0.0 | _ |

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 032 (Sulfate Turpentine Refining Unit)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

EMISSIONS SUMMARY FOR PERMIT DETERMINATION

| Agency County Source EmPt |
|--|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Inc. |
| ADDRESS P.O. Box 1937 |
| Hatliesburg Mo. 39401 |
| SITE LOCATION De West 7th St. Hattiesburg, Mr. |
| TYPE PLANT OR PROCESS Sulfate Turpentine Refining Unit |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: ()PM ()S0 $_2$ ()H $_2$ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) () Facility making application () Outside Consultant |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| |

Hercules, Inc. Renewal of Permit to Operate 110-0800-00001-032

Process: Sulfate Turpentine Refining Unit, Coule Tours Refining Process wt: 1.3 tors Chr

Control Pevices: Water scrubber on vent system

Operating Schedule: 24 hrs/dy 365 dy/yr.

Allowable Emissions: 4,9# /hr

actual Emissions: More Detected

Recommendations: Issue operating permit with conditions attacked, (see attacked sheet)

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS
RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES

JACK PEPPER

JOE STONE



GLEN WOOD, JR. EXECUTIVE DIRECTOR
P.O. BOX 827 - ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

Please note that under State Regulations a permit becomes invalid if the process or facility is modified in any significant fashion which will alter the rate or composition of air pollution emissions to the atmosphere. If such action is contemplated, a new construction permit application must be submitted to this agency.

New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Tachael O. Saan

MOS:sr

Enclosures

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street Hattlesburg, Mississippi

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Para-Methane Hydroperoxide Unit;

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| Issued this | 8th | day of | March | | _, 19 <u>77</u> . | |
|-------------|--------|------------------|----------|---------------|-------------------|---------------|
| | | AIR AI | ND WATER | POLLUTION | CONTROL Slew U | commission |
| | | | | Executive Dir | rector | 0 |
| Expires | 8th | day of _ | March | | , 19 80 | |
| Facility No | 0800-0 | 00001-031 | | | | |
| | 3007 | FMT0111 G01D TMT |) | arran . | | № 2358 |

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 031 (Para-Methane Hydroperoxide Unit)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| Agency County Source Empt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Inc. |
| ADDRESS P.O. Box 1937 |
| Hattiechung Mo. 39401 |
| SITE LOCATION De West 7th St. Hattiesburg, Mr. |
| TYPE PLANT OR PROCESS Para- Methane Hydroperolide Unit |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: ()PM ()S02 () H_2S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer 860 |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County |
| COMMENSEC |
| COMMENTS: |
| |

Hercules, Inc Renewal of Permit to Operate 110-0800-00001-031

Process: Para- Methane Hydoperoxide Unit

Process wt: ,52 tors/hr

Control Devices! Mone

Operating Schedule: 24 hrs/dy

365 dyfyr

allowable Emissions: 2,6#/h

actual Emissions: Oxidize vent, no visible

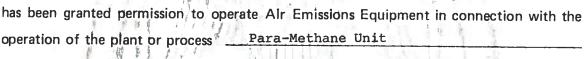
Recommendation: I some permit to operate with odor cond. attached.

State of Mississippi Air and Water Pollution Control Commission

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the MississIppi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

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| The state of the s | |
|--|-----|
| AIR AND WATER POLLUTION CONTROL COMMISSI | HON |
| Executive Director | |
| Expires | |
| Facility No. <u>0800-00001-030</u> | 25 |

ADDITIONAL CONDITION IS ATTACHED

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JACK PEPPER JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

Please note that under State Regulations a permit becomes invalid if the process or facility is modified in any significant fashion which will alter the rate or composition of air pollution emissions to the atmosphere. If such action is contemplated, a new construction permit application must be submitted to this agency.

New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

chael O. Saan

MOS:sr

Enclosures

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 030 (Para-Methane Unit)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| Agency County Source Empt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules, One. |
| ADDRESS P.O. Box 1937 |
| 12/ +1: 1 120 |
| SITE LOCATION West 7th St. Hattiesburg, Mr. TYPE PLANT OR PROCESS Para - Me Thomas Me it |
| TYPE PLANT OR PROCESS Para-Methane Vanit |
| NO. EMISSION POINTS (|
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) Hydrogen Parel |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer 320 |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| OMMENTS: |
| |

Hercules, Inc Renewal of Permit to Operate 110-0800-00001-030

Process: Para-Methane Unit

Process wt: . 3 tono/hr

. 14 0 1

Control Devices: More

Operating Schedule: 24 holdy, 365 day/y

Allowable Emissions: 1,8#/h

Actual Emissions: 5 5 CFM Hydrogen Pune, Monerische

Recommendation: I some operating permit with odor condition attached.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JACK PEPPER

JOE STONE

RAY TRIBBLE CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES



GLEN WOOD, JR. EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

school O. Saan

MOS:sr

Enclosures

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street
Hattlesburg, Mississippi

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Para-Cymene Unit

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

submitted to the Commission are filed with and considered as a part of this permit.

| Issued this8 | 3th | _day of _ | March | 4.7 | , 19 ⁷ | |
|-----------------|----------------------|-----------|-----------|-------------|----------------------|-----------|
| | | AIR AN | D WATER F | POLLUTION | CONTROL C | OMMISSION |
| 15 | | | | Executive D | rector | 91. |
| Expires | 8th | day of | March | | _ , 19 . | |
| Facility No. 08 | <u>300-00001-0</u> 2 | 9 | | | | |

Nº

2356

MPC FORM

ADDITIONAL CONDITION IS ATTACHED

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Facility No. 0800 00001 029 (Para-Cymene Unit)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Dre. |
| ADDRESS P.O. Box 1937 |
| Hattiesburg Mrs. 39401 |
| SITE LOCATION (West 7th St. Battierly Mis |
| TYPE PLANT OR PROCESS Para-Cymene Ulanit |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer DEC |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| |
| |

Hercules, Inc. Renewal of Pennet to Operate 110-0800-00001-029

Process: Para-Cymene Unit

Process wt: 65 tons/hr

Control Devices: Mone, a no blow went

Operating Schedule: 24 hrs/dy

365 dys/yu

allowable Emissions! 3,1 # hr.

actual Emissions: More detected

Recommendation: I some permit to operate with odor condition attached

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JACK PEPPER

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES



GLEN WOOD, JR. EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

chael O. Saar

MOS:sr

Enclosures

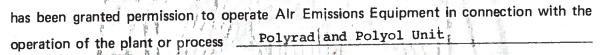
State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipmen

This Certifies That Hercules, Incorporated

West 7th Street
Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| Issued this | 8th | day of | March | , 19 | |
|-------------|-----|--------|------------|--------------------------------|---------|
| | | AIR AN | D WATER PC | LLUTION CONTROL COM | MISSION |
| | | | | Skewwood Executive Director | 71. |
| Expires | 8th | day of | March | , 19 | |

Facility No. <u>0800-00001-028</u>

一班 湯 湯

ADDITIONAL CONDITION IS ATTACHED

№ 2355

MPC FORM

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 028 (Polyrad and Polyol Unit)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| Agency County Source EmPt |
|--|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Dre. |
| ADDRESS P.O. Box 1937 |
| Hattienburg Ma 39401 |
| SITE LOCATION & West 1th St. Hattiesburg, Mr. |
| TYPE PLANT OR PROCESS Polyrad and Polyral Unit |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) () Facility making application () Outside Consultant |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| OMMENTS: |
| OPPRENTS: |
| |

Hercules, Inc.
Renewal of Permitto Operate
110-0800-00001-028

Process; Polyrad and Polyol Unit

Process w1: , 3 tons lh

Control Devices: no flow vent

Operating Schedule 24 hrs/day

365 days/yr

allowable Emissions; 1.8 # /hr

actual Emissions; More detected

Recommendation: I some permit to operate with odor cond. attacked

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

RAY TRIBBLE, CHAIRMAN JAMES W. CARRAWAY, VICE CHAIRMAN JOE D. BROWN

JAMES W. CARRAWAY, VIC JOE D. BROWN CHARLES W. ELSE BARRY O. FREEMAN CLYDE R. DAVIS A. L. GERRARD J. E. HOBGOOD CHARLES H. LYLES JACK PEPPER

COMMISSIONERS

JOE STONE



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 * ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Tachael O. Saar

MOS:sr

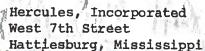
Enclosures

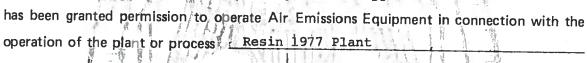
State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That





Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

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| adopted and p | promulgated | thereunder: | 4-43 | 11 | |
|----------------|-------------|-------------|--------------|--------------------|--------------|
| Issued this | 8th | day of | March | , 19 <u>77</u> | Date: 0 |
| | | AIR AN | D WATER POLI | LUTION CONTRO | L COMMISSION |
| | | | E | xecutive Director | 9 |
| Expires | 8th | day of | March | , 19 ⁸⁰ | • |
| Facility No. 0 | 800-00001- | -027 | | · | |
| | ADDITIONAL | CONDITION | IS ATTACHED | | № 235 |

MPC FORM

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 027 (Resin 1977 Plant)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , One. |
| ADDRESS F.() /1 (C) |
| Hattiesburg Mo. 39401 SITE LOCATION (West 7th St. Hattiesburg, Mr. |
| SITE LOCATION (West 7th St Battierly MM. |
| TYPE PLANT OR PROCESS Resin 1977 Plant |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: (JPM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Λttach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| OMMENTS: |
| |
| |

Hercules, Inc. Renewal of Permit to greate 110-0800-00001-027

Process: Resin 1977 Plant

Process wt. . 3 tons /h

Control Device: Mone

Operating Schedule: 24 hrs/dy 365 dyp/wk Allowable Emission: 1.8#/h

actual Emissions: More detected 30 CFM H2

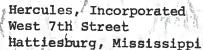
Recommendation: Issue operating permit with odor condition attached,

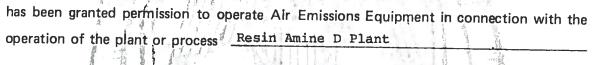
State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That





Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment of alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| adopted a | Control Act, (Mind promulgated the | ssissippi Law nereunder | /s, 1966/ ch./ | 258) and the regu | llations or standards |
|-------------|------------------------------------|----------------------------|----------------|--------------------|-----------------------|
| Issued this | 8th | _day of _ | March | , 19 $^{-2}$ | |
| | | AIR AND | WATER PO | LLUTION CONT | ROL COMMISSION |
| * | | | | Executive Director | U |
| Expires | 8th | _ day of | March | , 19 _ | 10 |
| Facility No | 0800-00001 | -026 | | | |
| MDC FORM | ADDITIONAL C | ONDITION IS | S ATTACHED | | № ***235 |

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 026 (Resin Amine D Plant)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| Agency County Source Empt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Dr. |
| ADDRESS P.O. Box 1937 |
| Hattiesburg Mo. 39401 |
| SITE LOCATION De West 7th St. Hattiesburg, Mr. |
| TYPE PLANT OR PROCESS Resin amine D Plant |
| NO. EMISSION POINTS (|
| TYPE EMISSIONS: ()FM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| OMMENTS: |
| |
| |

Hercules, Inc. Renewal of Permit to Operate 110-0800-00001-0026

Process: Resin amine D. Plant

Process wt: 4 tons In

: 1

Control Devices: Packed Town absorbtion on ammonister vent

Operating Schedule: 24hrs/dy 365 dg/wk.

allowable Emissions:

actual Emissions: More detected, 20CFM Hydrogen

Recommendation; I some operating permit with odor condition attached.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES
JACK PEPPER



GLEN WOOD, JR. EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

Please note that under State Regulations a permit becomes invalid if the process or facility is modified in any significant fashion which will alter the rate or composition of air pollution emissions to the atmosphere. If such action is contemplated, a new construction permit application must be submitted to this agency.

New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Schael O. Saan

MOS:sr

Enclosures

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
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Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

chael O. Saan

MOS:sr

Enclosures

State of Mississippi Air and Water Pollution Control Commission

To Operate Air Emissions Equipment

This Certifies That

Heroules, Incorporated West 7th Street Hattiesburg, Mississippi



has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Defoamer Plant

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

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| issued this | 8th | day of _ | March | , 19 <u>77</u> | |
|-------------|---------|----------|---------------|--------------------|------------|
| | | AIR AN | ID WATER POLL | UTION CONTROL | COMMISSION |
| | | | E | xecutive Director | 7 |
| Expires | 8th | day of | March | , 19 $\frac{80}{}$ | |
| Facility No | 0800-00 | 001-025 | (8) | 1. 1 | • |
| | | | | | NIO 925 |

| Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules place. |
| ADDRESS P.O. Box 1937 |
| That is I my sound |
| SITE LOCATION & West 1th St. Hattiesburg, Mr. |
| TYPE PLANT OR PROCESS Defoamer Plant |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AOM Engineer) AOM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| |

Hercules, Inc. Kenewal of Permit to Operate 110-0800-00001-0025

Process: Pefoamer Plant

.0.0

Process wt: 0.18 tons Ihr.

Control Devices: Pust bag

Operating Schedule: 24 hrs/day, 365 dys/wk

allowable Emissions; 1.3 4/hr

actual Emissions! More detected

Recommendation: I some permit to operate, Furnace used burns nat. gas.

State of Mississippi Air and Water Pollution Control Commission

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Kymene Plant

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

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| Issued this_ | 8th | day of _ | March | , 19 ⁷⁷ | | |
|--------------|--------|-------------|--------------|--------------------|-------|-------------|
| | | AIRA | ND WATER POL | LUTION CONTROL | COMMI | SSION |
| | | | E | Executive Director | U | <i>9-1-</i> |
| Expires | 8th | day of _ | March | , 19 | | |
| Facility No. | · 0800 | 0-00001-024 | | | | |
| | | | | | Nº | 235 |

998 7

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 024 (Kymene Plant)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| KEY DATA ////O/ 10/8/0/0/ 10/0/0/0// 10/2/4/ Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules, Dnc. |
| ADDRESS $1.0.30$ 1937 |
| Hatliesburg Mrs. 39401 SITE LOCATION & West 7th St. Hattiesburg, Mrs. TYPE PLANT OR PROCESS Kyree Kyrnere Plant |
| SITE LOCATION & West 7th St. Battierburg Ma |
| TYPE PLANT OR PROCESS Kymene Plant |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer \(\mathcal{DE} \mathcal{O} \) |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| |

Hercules , Dr. . Renewal of Permit to Operato 110-0800-00001 - 024

Process: Kymere Plant

Process wt: For tom Che

Control Devices: Packed tower scubber on exhaust

Operating Schedule: 24hrs/dy , 365 dyp/yr.

allowable Emissions: # hr

actual Emissions: none,

Recommendation: Issue Permit to sperate with odor condition attached.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES
JACK PEPPER



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 * ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

achael O. Saan

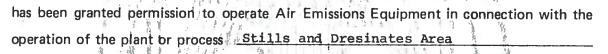
MOS:sr

Enclosures

PERMIT

To Operate Air Emissions Equipment

This Certifies That
Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966 ch. 258) and the regulations or standards adopted and promulgated thereunder:

| adopted and pi | -, | tu thereunder: | P. C. | | | |
|----------------|---------|----------------|----------|--------------------|----------|------|
| Issued this | 8th | day of | March | , 19 77 | | |
| | | AIR AND | WATER PO | OLLUTION CONTRO | L COMMIS | SION |
| | | | | Executive Director | 0 | |
| Expires | 8th | day of | March | , 19 ⁸⁰ | | |
| Facility No. 0 | 800-000 | 01-023 | | | | |
| 300 | T | | | | Nº | 235 |

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 023 (Stills and Dresinates Area)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| KEY DATA ////O/ /0/8/0/0/ /0/0/0/0// /0/2/3/ Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Dre |
| ADDRESS 1.0. Box 1937 |
| Hatliesburg Ms 39401 SITE LOCATION & West 1th St. Hattiesburg, Ms. TYPE PLANT OR PROCESS Stills and Oresinates area |
| SITE LOCATION (West 1th St. Hattierly Mo |
| TYPE PLANT OR PROCESS Stills and Oresinates are |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: (C)PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| OMMENIUS. |
| COMMENTS: |
| |

Hercules, Inc. Renewal of Permit to Operate 110-0800-00001-023

Process: Stills and Oresinate Facility

Process wt: 9,3 tons/h

Control Devices: Mone

aperating Schedule: 24 hrs/day 365 days/yr

allowable Emissions: 18.3 # /h

actual Emissions: More, one steam vent

Recommendation; I some permit to operate with odor condition. The facility has one steam vent and boilers run or nat gas

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

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JAMES W. CARRAWAY, VICE CHAIRMAN
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BARRY O. FREEMAN
CLYDE R. DAVIS
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JACK PEPPER



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

hael O. Saar

MOS:sr

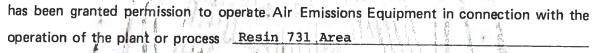
Enclosures

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| adopted an | a promuigated tile | reunder. | | To the state of th | | |
|--------------|--------------------|-----------|------------|--|--------|-------|
| Issued this. | 8th | _ day of | March | , 19 ⁷ 7 | - • | |
| | | AIR AND | | LUTION CONTRO | L COMM | SSION |
| Expires | 8th | day of | | , 19 | _· | , |
| Facility No | 0800-00001-02 | 2 | | | | |
| 1400 F0D14 | ADDITIONAL CO | NDITION I | S ATTACHED | | Nº | 2349 |

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 022 (Resin 731 Area)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

PERMIT

To Operate Air Emissions Equipment

This Certifies That Heroules, Incorporated West 7th Street Hattiesburg, Mississippi

has been granted permission to operate Air Emissions Equipment in connection with the

operation of the plant or process Pilot Plant Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit. The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws 1966, ch 258) and the regulations or standards adopted and promulgated thereunder. Issued this. AIR AND WATER POLLUTION CONTROL COMMISSION March Expires_ Facility No. ____0800-00001-021 2348

ADDITIONAL CONDITION IS ATTACHED

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 021 (Pilot Plant)

14. Since this unit is used for experimental purposes and emissions may change depending on the conditions of the experiments, reports must be made to the Mississippi Air and Water Pollution Control Commission semi-annually beginning July 1, 1974, explaining all work done including, as a minimum, the duration of tests, types of raw materials used and products produced and an assessment of emissions caused.



| Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules, One. |
| ADDRESS P() /3 ~ () (C) > |
| Hattiesburg Mo. 39401 SITE LOCATION & West 7th St. Hattiesburg, Mr. TYPE PLANT OR PROCESS Pilat Plant - |
| SITE LOCATION De West 7th St. Hattiesburg Mr. |
| TYPE PLANT OR PROCESS Plot Plant |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: (>PM (')SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) Hydroye |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| |

Hercules, Inc Renewal of permitto Operato 110-0800-00001-021

Process; Pilot plant

Process wti, 25 tons /h

Control Devices: More

Operating Schedule: 24 hrs/ly, 2 days/wh, 52 whs/yr allowable Emissions:

actual Emissions: More detected, 30 SCFM of hydrogen

Recommendation; Boile berns nat gas, Issue a permit to operate.





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 3, 1977



Air & Water Pollution Control Commission State of Mississippi P. O. Box 827 Jackson, Miss. 39205

Attn: Mr. Dwight Wylie

Gentlemen:

FACILITY PERMIT NO. 08000-00001-021 PILOT PLANT

As required by additional condition No. 14, the attached Table summarizes our Pilot Plant work from July 1, 1976 through December 31, 1976. We will continue to submit the required documentation on a semi-annual basis.

Yours very truly,

HERCULES INCORPORATED

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Attachment

| | Type | | No-flow | 0 | H2 Purge | H2 Purge | H2 Purge | | No-flow |
|-------------------------|------------------------|--------|--|----------|------------------------------------|---------------------------------|-----------------------|-------|--------------------------|
| Assessment of Emissions | Control Equipment | | Total Condenser | | None | None | None | | Barometric Condensers |
| Assessme | Potential Emissions | | Water of Reaction | | Hydrogen | Hydrogen | Hydrogen | | Nil |
| Type | Products | | Amide Wa | | Hydrogenated Resin | Hydrogenated Polymer | Hydrogenated Solvenol | | Distilled Resin |
| Raw | Materials Used | | Stearic Acid Ethylene Diamine Silicone | | Resin Para-Menthane Hydrogen | Polymer Hydrogen Isopar H | Solvenol Hydrogen | | Rosin |
| Duration | of tests (Days) | | 94 | | 21 | 89 | 36 | | 100 |
| Experimental | Equipment Name | Kettle | (A) | Reactors | (A) | (B) | (c) | Still | (A) |

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

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GLEN WOOD, JR. EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

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Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

hael O. Saar

MOS:sr

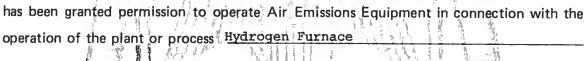
Enclosures

PERMIT

To Operate Air Emissions Equipmen

This Certifies That

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi



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| adoptod and | promargatou | Carried Asserting Asserting | Mary Mary | | | |
|--------------|-------------|-----------------------------|------------|--------------------|--------|--|
| Issued this | 8th | day of | March | , 19 <u>77</u> | T | |
| | | AIR AN | ID WATER P | OLLUTION CONTRO | L COMM | ISSION |
| | | | | Executive Director | our g | <u>. </u> |
| Expires | 8th | day of | March | , 19 | | |
| Facility No. | 0800-0000 | <u>L-</u> 020 | | | | |
| | | | | | Nº | 234 |

| REY DATA ////O/ /0/8/0/0/ /0/0/0/// /0/2/0/ Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Dnc. |
| ADDRESS P.O. Box 1937 |
| Hattiesburg Mo. 39401 |
| SITE LOCATION West 7th St. Hattiesburg, Mr. |
| TYPE PLANT OR PROCESS Hydrogen Furnace |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: ()PM (+)SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer BEC |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| COMMENTS: |
| |

Hercules, Inc. Renewal of Permit to Operate 110-0800-00001-020

Proceso: Hydrogen Furnace

Process wti 31,5 MCFH of hydrogen

Control Device; More

Operating Schedule: 24 hrs/dy, rdg/wh, 52 dgwhs/yr

allowable Emissions:

actual Emissions: More

Recommendation: Issue opermit to operate. Cracking furnace loperates on not gas

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JACK PEPPER

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES



GLEN WOOD, JR., EXECUTIVE DIRECTOR P. O. BOX 827 - ROBERT E. LEE BUILDING JACKSON, MISSISSIPPI 39205 (601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

Please note that under State Regulations a permit becomes invalid if the process or facility is modified in any significant fashion which will alter the rate or composition of air pollution emissions to the atmosphere. If such action is contemplated, a new construction permit application must be submitted to this agency.

New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Ichael O. Saar

MOS:sr

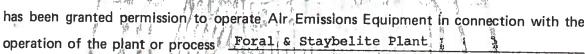
Enclosures

To Operate Air Emissions Equipment

100 mm mg 9 mm

This Certifies That

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| Issued this | 8th | day of M | arch | , 19 <u>77</u> | |
|-------------|-------------|-------------------|-------------|-----------------|------------|
| | | AIR AND WA | ATER POLLU | TION CONTROL | COMMISSION |
| | | | Exec | cutive Director | 0 |
| Expires | 8th | day of | arch | , 19 | . 27 |
| Facility No | o. <u> </u> | 0001-019 | | | |
| | ידחת ב | TTONAT. CONDITTON | TC ATTACHED | | Nº 234 |

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Pilot Plant

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

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| Issued this_ | 8th | day.ofMarch | , 19 <u>77</u> | |
|--------------|--------------|------------------|--------------------|------------|
| | | AIR AND WATER PO | OLLUTION CONTROL | COMMISSION |
| | | | Executive Director | 000-91. |
| Expires | 8th | day of | , 19 ⁸⁰ | • |
| Facility No. | , 0800-00001 | -021 | | |

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

 $N_{\bar{0}}$

2348

ISSUED TO

Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Facility No. 0800 00001 021 (Pilot Plant)

14. Since this unit is used for experimental purposes and emissions may change depending on the conditions of the experiments, reports must be made to the Mississippi Air and Water Pollution Control Commission semi-annually beginning July 1, 1974, explaining all work done including, as a minimum, the duration of tests, types of raw materials used and products produced and an assessment of emissions caused.

De C

| Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules , Dome. |
| ADDRESS $f(x)$ $f(x)$ $f(x)$ |
| Hattiesburg Mo. 39401 SITE LOCATION & West 7th St. Hattiesburg, Mr. |
| SITE LOCATION De West 7th St. Hattiesburg Mr. |
| TYPE PLANT OR PROCESS Pilot Plant |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: ()PM (')SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) Hydroge |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |

Hercules, Inc Renewal of permitto Operate 110-0800-0001-021

Process; Pilot plant

· . .

Process wti, 25 tons /h

Control Devices: More

Operating Schedule: 24 hrs/dy, 7 days/wh, 52 who/yr

allowable Emissions:

actual Enissions: None detected, 30 SCFM of hydrogen

Recommendation; Boile berns nat gas. Issue a permit to operate.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JACK PEPPER

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

chael O. Saan

MOS:sr

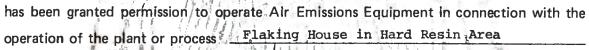
Enclosures

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| adopted and | promuigated | national Burida | R. P. M. J. | And the same of th | |
|--------------|-------------|-----------------|----------------|--|--------------|
| Issued this_ | 8th | day of | March | 19 77 | |
| | | AIR AN | D WATER POLLU | TION CONTROL | COMMISSION |
| | | | Exe | cutive Director | 0 |
| Expires | 8th | day of | March | , 19 | |
| Facility No. | 0800-00001 | -018 | | | 2000 |
| | | | TIONS ATTACHED | | № 234 |

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 018 (Flaking House in Hard Resin Area)

- 14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.
- 15. Good housekeeping should be maintained to prevent fugitive dust. Should fugitive dust become excessive, additional control measures may be required.

| Agency County Source EmPt |
|--|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Gercules, Inc. |
| ADDRESS P.O. Box 1937 |
| Hattiesburg, Mo. 39401 |
| SITE LOCATION West - of St. Hattiesburg |
| TYPE PLANT OR PROCESS Plaking House at Hard Resen area |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: (CYPM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) () Facility making application () Outside Consultant |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| NOMMENT OF THE PROPERTY OF THE |
| COMMENTS: |
| |

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES
JACK PEPPER



GLEN WOOD, JR EXECUTIVE DIRECTOR
P. O. BOX 827 * ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
[601] 354*2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

Gentlemen:

The enclosed permit numbers have been assigned to your installations at the above address for facilities indicated. These permits are valid for a period of three years and should be displayed prominently at the facilities indicated.

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

chael O. Saar

MOS:sr

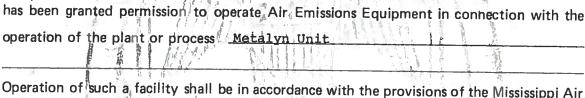
Enclosures

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules Incorporated West 7th Street Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment of alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| | · Mar | To the state of th | | |
|--------------|----------|--|---------------------|------------|
| Issued this | 8th | day of March | , 19 <u>77</u> . | 9 |
| | | AIR AND WATER | POLLUTION CONTROL O | COMMISSION |
| | | - | Executive Director | J. |
| Expires | 8th | day ofMarch | , 19 <u>80</u> . | |
| Facility No. | 0800-000 | 001-017 | | |
| · | | | | TO 0 1 |

ADDITIONAL CONDITION IS ATTACHED

Νº

2344

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 017 (Metalyn Unit)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| KEY DATA /// / 0/8/0/0/ /0/0/0/0/// / //////// Agency County Source EmPt |
|--|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules, In- |
| ADDRESS P.O. Box 1937 |
| Hattiesburg, Mo. 39401 |
| SITE LOCATION West. 7 th St. Hattiesburg |
| TYPE PLANT OR PROCESS Motalyn Process |
| NO. EMISSION POINTS / |
| TYPE EMISSIONS: LIPM ()SO2 ()H2S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) () Facility making application () Outside Consultant |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer \(\mathcal{DEC}\) |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| |
| |

Hercules, Inc. Renewal of Permit to Operate 110-0800-00001-617

Process: Metalyn Unit

Process wt; .68 tomb

Control Devices: Nove - Mo flow vent

Operating Schedule: 24 hrs/dy, 7 dys/wh, 52 who/yr

allowable Emissions; 3.16 #1/h

actual Emissions! More detected

Recommendation: I some permit to operate with odor condition attached.

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi



has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process a Continuous Esterification Process

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

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| | auopteu an | a promu | igated thereunder: | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | |
|---|--------------|---------|---------------------------------------|---------------------------------------|-----------------------|--------------|
| | Issued this. | 8th | day of | March | 19 77 | · 😥 |
| | | | A 1.D. A 1.I. | | Military and a second | |
| | | | AIRANL | WATER PO | LLUTION CONTROL | L COMMISSION |
| | | | · · · · · · · · · · · · · · · · · · · | | Dloud | (hook) |
| | | | | | Executive Director | 0 |
| 1 | Expires | 8th | day of | March | , 19 ⁸⁰ | . • |
| ı | Facility No | 0800-0 | 0001-016 | | | |
| | | ADDITI | ONAL CONDITION IS | S ATTACHED | | № 234 |

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 006 (Continuous Esterification Process)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

| Agency County Source Empt | |
|--|---|
| PLAN REVIEW ENGINEER | |
| FACILITY NAME Hercules Inc. | |
| ADDRESS RO. Box 1937 | |
| Hattierland Ma 3011 | |
| SITE LOCATION West 7th St. Hattiesburg | |
| TYPE PLANT OR PROCESS Continuous Esterification Process | |
| NO. EMISSION POINTS ' | - |
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC | |
| ()CO ()Other (specify) | |
| ALLOWABLE EMISSIONS: | |
| APPLICABLE REGULATION(S): | |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate | |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) () Facility making application () Outside Consultant | |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer | |
| If total emissions are greater than 0.25 tons/day, what are: | |
| Max. ground level concentration? | |
| At what distance? | |
| Percent contribution to total ambient levels caused by this source | |
| If new or modified source, what is percent change in emissions inventory caused by this source: | |
| County AQCR: State: | |
| COMMENTS: | |
| | |

Hecules, Inc. Renewal of Permit to Operate 110-0800-00001-016

Process: Continous Esterification Unit

Process wt: /tor/h

Control Devices: More

Operating Schedule: 24 hrs/dy, 7dy/wk, 52 why.

allowable Emissions; 4,1#/h.

actual Emissions, More Detected

Recommendation: Issue operating permit with odor condition attached.

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES
JACK PEPPER



GLEN WOOD, JR. EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

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New permit applications must be submitted ninety days prior to the end of the three year period covered by these permits.

Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

Ichael O. Saan

MOS:sr

Enclosures

State of Mississippi Air and Water Pollution Control Commission

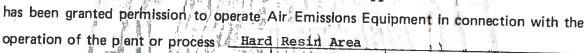
PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated West 7th Street

Hattiesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

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| adopted and | promulgated the | ereunder. | | The state of the s | |
|--------------|-----------------|--|---------------|--|--------------|
| | 1 | The sect of the section of the secti | | 100 | |
| Issued this_ | 8th | day of | March | 19 77 | |
| | | THE PROPERTY OF | Rich west | , sin | - • |
| | | AIR AND | WATER POLL | UTION CONTROL | - COMMISSION |
| | | | | Dleul | 1000 h. |
| | | | Ex | ecutive Director | 0 |
| Expires | 8th | day of | March | , 19 $\frac{80}{}$ | |
| Facility No. | 0800-00001-0 | 15 | | | |
| | ADDITIONAL | CONDITION | I IS ATTACHED | | № 234 |

MPC FORM

ADDITIONAL CONDITION

ISSUED TO

Hercules, Inc. P. O. Box 1937 Hattiesburg, Mississippi 39401

Facility No. 0800 00001 005 (Hard Resin Area)

14. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air and Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.

EMISSIONS SUMMARY FOR PERMIT DETERMINATION

| KEY DATA ////O/ 10/8/0/0 / 10/0/0/0/// 10/1/5/ Agency County Source EmPt |
|---|
| PLAN REVIEW ENGINEER |
| FACILITY NAME Hercules, Ive. |
| ADDRESS RO. Gox 1937 |
| Hattiesburg, MD. 39401 |
| SITE LOCATION West the St. Hattiesburg |
| TYPE PLANT OR PROCESS Hand Resin alea |
| NO. EMISSION POINTS |
| TYPE EMISSIONS: ()PM ()SO ₂ ()H ₂ S ()HC |
| ()CO ()Other (specify) |
| ALLOWABLE EMISSIONS: |
| APPLICABLE REGULATION(S): |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation . () Estimate |
| WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations) |
| AIR QUALITY IMPACT: (To be completed by AOM Engineer) AOM Engineer |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |
| COMMENTS: |
| |

Hercules, Inc.
Renewal of Permit to Operate
110-0800-00001-000015

Process: Hard Resin area Process wt: 1,5 tons/hr.

.

Control Devices: Spray chamber with buffles on exhaust from Hard Reser Kettles

Operating Schedule; 24 hyday, >daylok, 52 wholys

Allowable Emission:

actual Emissions: More detected

Recommendation: I pour permit to operate with order condition attached

STATE OF MISSISSIPPI

COMMISSIONERS

JACK PEPPER

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES



GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E, LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 22, 1977

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi 39401

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Very truly yours,

Michael O. Saar

Engineer

Air Quality Control

chael O. Saan

MOS:sr

Enclosures

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

OIL & GAS BOARD QUINCY R. HODGES

BOARD OF HEALTH JOE D. BROWN

MARINE CONSERVATION COMMISSION W. J. DEMORAN

W. E. GUPTON **JACKSON**

HERMIT A. JONES CANTON

RAY TRIBBLE MONEY

STATE OF MISSISSIPPI



Glen Wood, Jr. EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

SIXTH FLOOR ROBERT E. LEE BUILDING JACKSON, MISSISSIPPI 39205

COMMISSIONERS

GAME & FISH COMMISSION AVERY WOOD

BOARD OF WATER COMMISSIONERS JACK PEPPER

CHARLES W. ELSE YAZOO CITY

ASSOCIATE MEMBERS

STATE PARK SYSTEM DR. JOHN M. KING

A & I BOARD PAUL BURT

GEOLOGICAL SURVEY W. H. MOORE

09/24/76

HEXCULES INC DE HATT WEST 7TH STREET HAITIESBURG NS 396 NS 39401

CONTACT

CHARLES JORDAN

SHAJELT

OPERATING PERMIT EXPIRES

DATE

02/06/77

CHINTY ME ORIGIN

SOURCE NO. DITTOT NO.

00001 005

GENTLEMEN

A REVIEW OF DUR FILES INDICATES THAT YOUR PERMIT TO OPERATE EXPIRES SOOM.

PLEASE MOTE THAT CHMMISSION REGULATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR RENEWAL DE YOUR PERMIT TO OPERATE AT LEAST NINETY (90) DAYS PRIOR TO THE EXPIRATION DATE.
APPLICATION FORMS MAY BE USTAINED BY WRITTEN REDUEST TO THE ADDRESS SHOWN ABOVE.

TACT US.

VERY TRULY YOURS.

WIKE KENTEDA DIV. OF AIR POLLUTION CONTROL

STATE OF MISSISSIPPI

COMMISSIONERS

JOE STONE

RAY TRIBBLE, CHAIRMAN
JAMES W. CARRAWAY, VICE CHAIRMAN
JOE D. BROWN
CHARLES W. ELSE
BARRY O. FREEMAN
CLYDE R. DAVIS
A. L. GERRARD
J. E. HOBGOOD
CHARLES H. LYLES
JACK PEPPER



004

GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E LEE BUILDING
JACKSON, MISSISSIPPI 39205
(601) 354-2550

March 11, 1977

CERTIFIED MAIL - RETURN RÉCEIPT REQUESTED

Hercules, Incorporated West 7th Street Hattiesburg, Mississipoi 3 401

Gentlemen!

Re: Operating explication to 5
Package Boiler and Call of

Gentlemen

Enclosed are the referenced operating Permits. Since both systems previously held ermits to Operate with conditions granting variance to Section 4.1(b.), these conditions have been specified as an accomplishment of the consideration and approval by the Permit Board and Commission.

Please read the permit conditions carefully the requirements.

If you have any questions, please contact us.

Very truly yours,

Wayne B. Anderson Chief of Engineering Air Quality Control

WBA: ST

Enclosure



HERCULES INCORPORATED

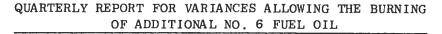
HATTIESBURG, MISSISSIPPI 39401

February 11, 1977

State of Mississippi Air & Water Pollution Control Commission P. O. Box 827 Jackson, Mississippi 39205

Attn: Mr. Dwight Wylie

Gentlemen:



Pursuant to our request to burn additional No. 6. fuel oil under natural gas curtailment (Letter, Jordan to Stubberfield, April 5, 1976) and the Commission act to permit the request (Letter, Stubberfield to Jordan, May 14, 1976), the following data is the first ninety (90) day report on fuels which exceed 2.2% sulfur by weight.

No. 6 Fuel Oil Usage
Density = 8 lb./Gal.
Heating Value = 149,400 BTU/Gal.
Sulfur Content = 2.4%

NOVEMBER

Tall Oil Boilers = 0 lbs./day
No. 5 Boiler = 74,942 lbs./day
Wood Boilers = 3,386 lbs./day

JANUARY

Tall Oil Boilers = 76,717 lbs./day
No. 5 Boiler = 82,728 lbs./day
Wood Boilers = 3,710 lbs./day

DECEMBER

Tall Oil Boilers = 0 lbs./day No. 5 Boiler = 100,989 lbs./day Wood Boilers = 4,950 lbs./day

CONTROL COMMISSION

QUARTERLY AVERAGE

Tall Oil Boilers = 25,850 lbs./day
No. 5 Boiler = 86,059 lbs./day
Wood Boilers = 4,005 lbs./day
Combined Total = 115,914 lbs./day

Very truly yours,

H. R. Buckley

HRB:m1

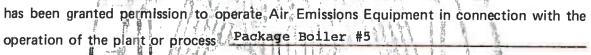
State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That

West 7th Street Hattlesburg, Mississippi



Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act. (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| adopted and | d promulgated | thereunder. | 18 | |
|--------------|---------------|-------------------------|-------------------|-------|
| Issued this_ | 8th | day of March | , 19 | |
| | | AIR AND WATER POLLUT | ION CONTROL COMMY | SETON |
| | | Execu | tive Director | |
| Expires | 8th | day of | , 19 | |
| Facility No. | 0800-0000 | 1-011 | | |
| | | L CONDITION IS ATTACHED | Nº | 233 |

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-011

(Package Boiler No. 5)

14. By this condition, the stated facility is allowed sulfur dioxide emissions exceeding those emitted by the facility in 1970. This condition is authorized by the Commission for a period equal to the remaining term of the Permit to Operate, i.e., until March 8, 1980.

Operation of this facility at higher sulfur dioxide emission levels than in 1970 after March 8, 1980, is not allowed unless and until subsequent and additional Commission authorization is given.

Attendant to the authorization stated above, this facility shall make written quarterly reports to the Commission with the first report to be made ninety (90) days after the natural gas curtailment begins or at the time of reapplication for Permit to Operate, whichever occurs first. The reports shall state density, heating value, daily usage (pounds/day), date of use and sulfur content of any and all fuels which exceed 2.2 sulfur by weight.

Failure to adhere to the reporting requirements shall render the abovestated authorization null and void.

EMISSIONS SUMMARY FOR PERMIT DETERMINATION

| Agency County Source EmPt PLAN REVIEW ENGINEER FACILITY NAME Hercules / Jac ADDRESS D. O Box 1937 Hattiesburg Mp. 39401 SITE LOCATION West 70 St. Hattiesburg TYPE PLANT OR PROCESS Package Boile # 05 NO. EMISSION POINTS TYPE EMISSIONS: () PM (+502 () H2S () HC () CO () Other (specify) ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation () Estimate |
|--|
| ADDRESS D. O B ox 1937 Mathesbara MD. 39401 SITE LOCATION West 7th St. Mathesbury TYPE PLANT OR PROCESS Package Boile # 05 NO. EMISSION POINTS TYPE EMISSIONS: ()PM (+802 ()H2S ()HC ()CO ()Other (specify) ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| ADDRESS P.O Box 1937 Mattiesburg MD. 39401 SITE LOCATION West 700 St., Nattusburg TYPE PLANT OR PROCESS Package Boils #05 NO. EMISSION POINTS TYPE EMISSIONS: () PM (+802 () H2S () HC ()CO ()Other (specify) ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| SITE LOCATION West 7th St., Nattusbury TYPE PLANT OR PROCESS Package Boils # 05 NO. EMISSION POINTS TYPE EMISSIONS: () PM (+502 () H2S () HC () CO () Other (specify) ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| TYPE PLANT OR PROCESS Package Boils # 5 NO. EMISSION POINTS / TYPE EMISSIONS: ()PM (+502 ()H2S ()HC |
| NO. EMISSION POINTS TYPE EMISSIONS: () PM () SO ₂ () H ₂ S () HC () CO () Other (specify) ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| TYPE EMISSIONS: ()PM ()S02 ()H2S ()HC ()C0 ()Other (specify) ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| ()CO ()Other (specify) ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| ALLOWABLE EMISSIONS: APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| APPLICABLE REGULATION(S): HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| HOW EMISSIONS DETERMINED: () Source Test () Calculation |
| |
| () instructe |
| WHO DETERMINED FMISSIONS: () MAWPCC Engineer (Attach Calculations) () Facility making application () Outside Consultant |
| AIR QUALITY IMPACT: (To be completed by AQM Engineer) AQM Engineer DEC |
| If total emissions are greater than 0.25 tons/day, what are: |
| Max. ground level concentration? |
| At what distance? |
| Percent contribution to total ambient levels caused by this source |
| If new or modified source, what is percent change in emissions inventory caused by this source: |
| County AQCR: State: |
| COMMENTS: |

Heacules, Inc. Renewal of Permit to Operate 110-0800-00001-011

Process: Package Boiler #5

Process Wt: 156 BF 156 X106 BTU/ha.

Control Devices; Mone

Operating Schedule: 24 holdy, 7 dolwh, 52 wholys.

allowable Emissions: 4.8 # 502/106 BTU

actual Emissions! 2.6 # 502/106 BTU based on #16 fuel oil 2.5% S.

Recommendation: I prue a permit to operate with additional condition (see attached sheet)

STATE OF MISSISSIPPI

COMMISSIONERS

J. E. HOBGOOD, CHAIRMAN JAMES W. CARRAWAY, VICE CHAIRMAN JOE D. BROWN CLYDE R. DAVIS CHARLES W. ELSE A. L. GERRARD WALTER D. KING RICHARD L. LEARD JACK PEPPER JOE STONE RAY TRIBBLE



GLEN WOOD, JR., EXECUTIVE DIRECTOR P. O BOX 827 - ROBERT E. LEE BUILDING JACKSON, MISSISSIPPI 39205 (601) 354-2550

June 14, 1977

Hercules, Incorporated P.O. Box 1937 Hattiesburg, Mississippi

Re: Facility No: 0800-00001-010 &

0800-00001-009

Gentlemen:

The enclosed permits have been modified by Permit Board action to include a fuel-use reporting requirement inadvertently omitted when these permits were reissued.

If you have any questions, please contact us.

Very truly yours,

Bruce Mowry

Engineer

Air Quality Control

Brice Mining

BM:sr

Enclosures

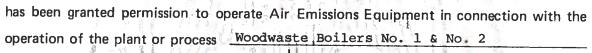
State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That

Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi



MPC FORM

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data submitted to the Commission are filed with and considered as a part of this permit.

The Mississippi Air and Water Pollution Control Commission reserves the right to withdraw this permit, after due notice, if it is found that additional equipment or alterations are necessary to prevent pollution of the air of the state as defined in the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the regulations or standards adopted and promulgated thereunder.

| adopted and promulgated | mereunder. | |
|-------------------------|---------------------|-------------------------|
| Issued this 14th | day of June | , 19 <u>77</u> . |
| | AIR AND WATER POLLU | TION CONTROL COMMISSION |
| | Exec | curve Director |
| Expires 8th | day ofMarch | , 19 |
| Facility No0800-000 | 01-009 | |
| ADDITTONAL CONDI | TION IS ATTACHED | № 249 |

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-009

(Woodwaste Boilers No. 1 & No. 2)

14. By this condition, the stated facility is allowed sulfur dioxide emissions exceeding those emitted by the facility in 1970. This condition is authorized by the Commission for a period equal to the remaining term of the Permit to Operate, i.e. until March 8, 1980.

Operation of this facility at higher sulfur dioxide emission levels than in 1970 after March 8, 1980, is not allowed unless and until subsequent and additional Commission authorization is given.

Attendant to the authorization stated above, this facility shall make written quarterly reports to the Commission with the first report to be made ninety (90) days after the natural gas curtailment begins or at the time of reapplication for Permit to Operate, whichever occurs first. The reports shall state density, heating value, daily usage (pounds/day), date of use and sulfur content of any and all fuels which exceed 2.2 sulfur by weight.

Failure to adhere to the reporting requirements shall render the abovestated authorization null and void. Chech on his variance the Chech on his variance HERCL



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

May 6, 1977

PECHIUAD

State of Mississippi Air & Water Pollution Control Commission P. O. Box 827 Jackson, Mississippi 39205 MAY 1 0 1977

AIR & WATER POLLUTION CONTROL COMMISSION STATE OF MISSISSIPPI

Attn: Mr. Dwight Wylie

Gentlemen:

QUARTERLY REPORT FOR VARIANCES ALLOWING THE BURNING OF ADDITIONAL NO. 6 FUEL OIL

Pursuant to our request to burn additional No. 6 fuel oil under natural gas curtailment and the Commission act to permit the request, the following data is the second ninety (90) day report on fuels which exceed 2.2% sulfur by weight.

No. 6 Fuel Oil Usage Density = 8 lb./gal. Heating value = 152,000 Btu/gal. Sulfur content = 2.9%

February Usage

Tall Oil boilers = 85,040 lbs./day
No. 5 boiler = 61,118 lbs./day
Wood boilers = 44,556 lbs./day

March Usage

Tall Oil boilers = 12,191 lbs./day
No. 5 boiler = 10,467 lbs./day
Wood boilers = 26,846 lbs./day

April Usage

Tall Oil boilers = 0 lbs./day
No. 5 boiler = 0 lbs./day
Wood boilers = 5,669 lbs./day

Our original request to burn additional No. 6 fuel oil under natural gas curtailment (Letter, Jordan to Stubberfield, April 5, 1976) included our wood boilers. The Commission act to permit the request (Letter, Stubberfield to Jordan, May 14, 1976) stated, "The Commission's approval of the variances will also be applicable to the woodwaste boilers, but only after compliance with particulate regulations has been proved and Permits to Operate issued". Proof of compliance particulate data was submitted on June 17, 1976.

Since then, we have filed for renewal of permits to operate and reapplication requesting authorization to burn additional No. 6 fuel oil

X



Mr. Dwight Wylie

- 2 -

May 6, 1977

under natural gas curtailment. However, our current variance was not attached to our woodwaste boilers operating permits and we hereby, respectfully, request the variance to formally include the woodwaste boilers.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Senior Chemical Engineer

CSJ:p