COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN **BASSFIELD**

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MARINE CONSERVATION COMMISSION W. J. DEMORAN

W. E. GUPTON **JACKSON**

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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

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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

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG WS 39401

CONTACT

CHARLES MARDAM

SUBJECT

OPERATING PERMIT EXPIRES

DATE

02/06/77

00/24/76

COUNTY AIT.

SHURCE MID.

00001

POINT NO.

1116

GENTLEMEN

A SEVIEW OF OUR FILES INDICATES THAT YOUR PERMIT TO OPERATE EXPIRES SHOW.

PLEASE NOTE THAT COMMISSION REGULATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR RENEWAL OF YOUR PERMIT TO OPERATE AT LEAST MINETY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REQUEST TO THE ADDRESS SHOWN ABOVE.

IF YOU HAVE ANY QUESTIONS. PLEASE ON NOT HESITATE TO COM-

VERY TRULY YOURS.

MIKE READERY DIV. DE AIR POLLHIJON CONTROL

INSPECTION ACTION INFORMATION ***

601 5846411 CHARLES JORDAN MIKE KENNEDY TELEPHONE 08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401 DATE SCHEDULED
COMPANY NAME
ADDRESS
CITY-STATE-ZIP
DESCRIPTION CONTACT ENGINEER FORAL & STAYBELITE PLANT ACTION DESCRIPTION CARD ACTION
TYPE TYPE COUNTY SOURCE EM. PT. ACTION AGCY CODE (1-3) (52 - 53)(8-12) (13-15) (16-17) (18) 18-MONTH INSPECTION 7 16 02 019 00001 110 0800 UPDATE CODE (80)

HOURS TAKEN TO COMPLETE (71-72) COMPLETED ACTION RESULTS (69-70) DATE PERFORMED (MO/DAY/YR) (54-59) C *******

SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

8

FOR ENGINEERING USE ONLY ****** NEXT-ACTION HRS TO LETTER COMPLETE CODE (73-74) (75-76) (77-78) UPDATE STAFF NEXT-ACTION DATE (MO/DAY/YR) (60-65) CODE NEXT-ACTION CARD NUMBER (16-17) (18) (80)MEMBER 177E (66-68) (73-74) N XX ***** ENGINEERING COMMENTS ***** UPDATE CODE LINE CARD (80) COMMENTS NUMBER (20-54)(19) (18)N 8 2 N 8 3 N 8 4 8 5 N 6 N 8 7

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RI	EPORTING: Judy Linskey

INSPECTION ACTION INFORMATION

08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP MS 39401 FLAKING HOUSE - H R A DESCRIPTION

00001

TELEPHONE CONTACT ENGINEER

601 5846411 CHARLES JORDAN MIKE KENNEDY

CARD ACTION TYPE TYPE (18) (52-53) ACTION COUNTY SOURCE EM. PT. ACTION NUM NUM AGC Y CODE DESCRIPTION NUM

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CODE CODE (1-3) (4-7) (8-12) (13-15) (16-17) (18) 7 16

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18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59)

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72) UPDATE CODE (80)

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> SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER-CHECK FUGITIVE DUST 12

FOR ENGINEERING USE ONLY NEXT-ACTION HRS TO LETTER COMPLETE CODE (73-74) (75-76) (77-78) UPDATE NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION
DATE (MO/DAY/YR)
(60-65) CODE MEMBER (80) (66-68) (73-74) N 7 XX ENGINEERING COMMENTS ***** UPDATE CARD LINE NUMBER CODE COMMENTS (80) (18)(19)(20-54)N 8 N 2 8 N 3 8 N 4 5 8 N 6 8

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RI	EPORTING:Linskey

INSPECTION ACTION INFORMATION ***

08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP MS 39401 DESCRIPTION METALYN UNIT

601 5846411 CHARLES JORDAN MIKĖ KENNEDY **TELEPHONE** CONTACT

ACTION DESCRIPTION AGCY CODE (1-3) CARD ACTION TYPE TYPE COUNTY CODE (4-7) SOURCE EM. PT. NUM ACTION NUM

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DATE PERFORMED (MO/DAY/YR) (54-59) COMPLETED ACTION RESULTS (69-70) **HOURS** TAKEN TO COMPLETE

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UPDATE CODE (80)

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> SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER 12

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STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE: March 22, 1976

SUBJECT: 18-Month Inspection - Hercules, Inc.

PERSON REPORTING: Judy Linskey

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED
COMPANY NAME
ADDRESS
CITY-STATE-ZIP
DESCRIPTION

08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
CONT ESTERFICATION UNIT

TELEPHONE 601 5846411 CONTACT CHARLES JORDAN ENGINEER MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

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DATE PERFORMED COMPLETED ACTION HOURS TAKEN TO COMPLETE (54-59) (69-70) (71-72)

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UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

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STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

INSPECTION ACTION INFORMATION

08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP MS 39401 DEŠĊŔĬĔŢĨŎŊ AREA HARD RESINS

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601 5846411 CHARLES JORDAN MIKE KENNEDY **TELEPHONE** CONTACT

CARD ACTION TYPE TYPE AGCY SOURCE EM. PT. ACTION COUNTY

ACTION DESCRIPTION NUM

CODE (4-7) (52 - 53)(8-12) (13-15) (16-17)(18) (1-3)

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HOURS TAKEN TO COMPLETE (71-72) COMPLETED ACTION RESULTS (69-70) DATE PERFORMED (MO/DAY/YR) (54-59)

UPDATE CODE (80)

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> SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER 12

******* FOR ENGINEERING USE ONLY STAFF NEXT-ACTION HRS TO COMPLETE (66-68) (73-74) (75-76) NEXT-ACTION DATE (MO/DAY/YR) (60-65) UPDATE CODE LETTER CODE_ NEXT-ACTION CARD MEMBER (80) (18)(16 - 17)N 7 XX ENGINEERING COMMENTS **** ***** UPDATE CODE CARD TYPE (18) 8 LINE NUMBER COMMENTS (20-54) (80) (19)N N 8 2 N 8 3 N 4 8 5 8 N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT: _	18-Month Inspection - Hercules, Inc.
PERSON REI	PORTING: Judy Linskey

INSPECTION ACTION INFORMATION

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 MS 39401 BELT & PACK TRULINE FLAKG

601 5846411 CHARLES JORDAN MIKE KENNEDY TELEPHONE CONTACT ENGINEER

CARD ACTION TYPE TYPE ACTION DESCRIPTION COUNTY SOURCE EM. PT. CODE NUM NUM ACTION NUM AGC Y

CODE (1-3) (52-53) (18)(4-7)(8-12) (13-15) (16-17)

7 18-MONTH INSPECTION 110 0800 00001 014 02 16

DATE PERFORMED (MO/DAY/YR) (54-59) COMPLETED ACTION HOURS TAKEN TO COMPLETE (71-72) RESULTS (69-70)

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UPDATE CODE (80)

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* ADDITIONAL INFORMATION * (DO NOT WRITE IN THIS SPACE) ********** *********

> SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER-CHECK FUGITIVE DUST 12

********* FOR ENGINEERING USE ONLY ******** NEXT-ACTION HRS TO TYPE COMPLETE (73-74) (75-76) STAFF MEMBER **LETTER** NEXT-ACTION DATE (MO/DAY/YR) (60-65) UPDATE NEXT-ACTION CARD NUMBER TYPE CODE CODE NUMBER (16-17) (66-68) (73-74) (77-78)(80) (18)N 7 XX ENGINEERING COMMENTS ***** UPDATE CARD LINE NUMBER CODE COMMENTS (80) (18) (20-54)(19)N 1 N 2 8 8 3 N 8 4

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

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601 3846411 Charles Junior SILLY DAVIS

C3/10/75 -EXCULES 1.C OF HATT EST 77: STAETT DETTIESTORG 5 5-4 PULSEATZED VINSUL -I DATE SCHEDULED COMPANY ** A NE CLTY-STATE-ZIS UFSCHISTION

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460Y 0105 (1-3) INSPECTION

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FEB 12 1975

& WATER POLLUTION NTROL COMMISSION STATE OF MISSISSIPPI

STATE OF MISSISSIPPI



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REPORT OF FIELD INVESTIGATION

DATE: March 19, 1975
SUBJECT: Hercules, Inc Forrest County
PERSON REPORTING: Billy Davis

On the above date, an inspection was made at Hercules, Inc., in Hattiesburg. The pulberized vinsol mill is not in operation. This was verified by Charles Jordan who also said that the mill would be closed down for at least a year.

Wayne Aflord

CC: Mr. Gingles

MAR 26 1975

AIR & WATER POLLUTION

CONTROL COVIMISSION

STATE OF MISSISSIPPI

STATE OF MISSISSIPPI



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FII	_E	NO.:	A/P	

REPORT OF FIELD INVESTIGATION

DATE: March 19, 1975

SUBJECT: Hercules, Inc. - Forrest County

PERSON REPORTING: Billy Davis

On the above date, an inspection was made at Hercules, Inc., in Hattiesburg. The pulberized vinsol mill is not in operation. This was verified by Charles Jordan who also said that the mill would be closed down for at least a year.

Wayne Aflord

CC: Mr. Gingles

MAR 2 6 1975

AIR & WA POLITION

CONTROL COMMISSION

STATE CE MUSISSIPPI

INSPECTION ACTION INFORMATION ***

08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
PITCH-BLOWING FACILITY DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION

601 5846411 CHARLES JORDAN MIKE KENNEDY **TELEPHONE** CONTACT

AGCY COUNTY SOURCE EM. PT. ACTION CODE CODE NUM NUM NUM (1-3) (4-7) (8-12) (13-15) (16-17 SOURCE EM. PT. ACTION CARD ACTION NUM NUM NUM TYPE TYPE (8-12) (13-15) (16-17) (18) (52-53) ACTION DESCRIPTION

0800 110 00001 012 7 02 16 18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59)

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72)

UPDATE CODE (80)

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NO COMMENTS

****	****	******** FOR ENGINEERING USE ONLY **********	*****
NEXT- NUMBE (16-1	ACTION R	CARD NEXT-ACTION STAFF NEXT-ACTION HRS TO LETTER TYPE DATE (MO/DAY/YR) MEMBER TYPE COMPLETE CODE (18) (60-65) (66-68) (73-74) (75-76) (77-78)	UPDATE CODE (80)
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STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

INSPECTION ACTION INFORMATION

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401 PACKAGE BOILER NO 5

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601 5846411 CHARLES JORDAN MIKE KENNEDY **TELEPHONE** CONTACT ENGINEER

AGCY COUNTY SOURCE EM. PT. ACTION CODE CODE NUM NUM NUM (1-3) (4-7) (8-12) (13-15) (16-17) CARD ACTION ACTION DESCRIPTION

(8-12) (13-15) (16-17) (18) (52-53)

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COMPLETED ACTION RESULTS (69-70) DATE PERFORMED HOURS TAKEN (MO/DAY/YR) (54-59) TO COMPLETE (71-72) UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER 12

****	************* FOR ENGINEERING USE ONLY **********	*****
NEXT-ACTION NUMBER (16-17)	CARD NEXT-ACTION STAFF NEXT-ACTION HRS TO LETTER TYPE DATE (MO/DAY/YR) MEMBER TYPE COMPLETE CODE (18) (60-65) (66-68) (73-74) (75-76) (77-78)	UPDATE CODE (80)
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STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

Air & Water Pollution Control Commission Forces +

STATE OF MISSISSIPPI

COMMISSIONERS

RAY TRIBBLE CHAIRMAN MONEY

JAMES W. CARRAWAY VICE CHAIRMAN BASSFIELD

BOARD OF HEALTH JOE D. BROWN

KENNETH COBB

CHARLES W. ELSE YAZOO CITY

GAME & FIBH COMMISSION BARRY O. FREEMAN

OIL & GAS BOARD QUINCY R. HODGES

HERMIT A. JONES
CANTON



010

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

TELEPHONES:
ADMINISTRATIVE OFFICES 601-354-7513
AIR DIVISION 601-354-6783
WATER DIVISION 601-354-7661

October 23, 1975

COMMISSIONERS

MARINE CONSERVATION COMMISSION CHARLES H. LYLES

BOARD OF WATER COMMISSIONERS JACK PEPPER

JOE STONE

ASSOCIATE MEMBERS

STATE PARK SYSTEM
WILLIAM M. BARNETT

A & I BOARD HAROLD A. CROSS

GEOLOGICAL SURVEY W. H. MOORE

Mr. Charles Jordan Senior Chemical Engineer Hercules, Incorporated West 7th Street Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

In reference to the proposed emission tests on Sources 009 and 010, sampling in the breach will be allowed if conducted under the following conditions:

- (1) Forty-eight (48) traverse points must be tested.
- (2) The test will be considered valid only if no more than ten (10) of the forty-eight (48) points has zero or negative velocities.

If you have any questions, please feel free to contact me.

Sincerely,

J. Calvin Thames

Chief

Planning & Standards Section
Division of Air Pollution Control

JCT:sr

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

October 20, 1975

State of Mississippi Air & Water Pollution Control Commission Air Division P. O. Box 827

Attention: J. Calvin Thames

Jackson, Mississippi 39205

Gentlemen:

Re our Tolerance Permits proof of compliance point source 009 and 010 for which we have requested permission to perform breech sampling tests, please note the enclosed blueprint with the necessary information requested in October 16, 1975 letter.

Very truly yours,

HERCULES INCORPORATED

Charles Jordan

Senior Chemical Engineer

CJ:bs

Enclosure

Cal





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

August 8, 1975



AIR & WATER POLLUTIONS
CONTROL COMMISSIONS
CTATE OF MISSISSIPPS

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

Attn: Mr. Dwight B. Burkes

Gentlemen:

TOLERANCE PERMITS PROOF OF COMPLIANCE
POINT SOURCE 009 AND 010

We have received your July 18, 1975 letter requiring stack test. As discussed in our July 30 phone conversation with your Mr. Dwight Burkes, we have made contacts with independent stack testing services and are awaiting their reply.

It is our understanding that in some cases breech sampling tests have been accepted when actual stack testing present justifiable problems. As you know, our stacks are old and big (200-225 ft. high and 10 ft. I.D.) and have been in continuous service since 1935. The stack is brick-lined with reinforced concrete. At approximately 2-3 diameters above the breeching (77 ft. elevation) the actual stack consists of (1) 6" brick lining (2) 6" air space or insulation and (3) 12" reinforced concrete wall. We are very seriously concerned with the structual integrity of these old "double wall" stacks if an attempt is made to install 4" sampling ports. It is for this reason along with the safety aspects of high altitude sampling and platform requirements that we are requesting permission to perform breech sampling tests. We feel that representative test data will result from breech sampling.

As indicated in your letter, we are looking forward to your visit for a visual inspection and general discussion of these matters at your earliest convenience.

Yours very truly,

HERCULES INCORPORATED

By: Charles S. Jordan

Charles S. Jordan 449

Sr. Chemical Engineer

CSJ:p

FILE COPY

July 18, 1975

Johnson

Mr. Fred K. Lane Hercules, Inc. West 7th Street Hattiesburg, Mississippi 39401

Dear Mr. Lane:

We have received the certification of construction on your four wood boilers emission points 9 and (10). You are required proof of compliance by July 31, 1975, therefore, it is imperative that you make arrangements for a stack test as soon as possible. It has also been brought to our attention that during late afternoon and early evening hours, the smoke from these boilers are a nuisance to people and property in the vicinity of your plant. If this is a result of soot blowing, then perhaps we need to discuss a more appropriate time and procedure for this undertaking. At any rate, I plan to visit your facility for a visual inspection and a discussion of these matters in general within the next two (2) weeks. At present, work load and circumstances prevent me from knowing exactly when this will be.

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

Very truly yours,

Dwight B. Burkes
Plan Review Engineer
Division of Air Pollution Control

DBB:ph

STATE OF MISSISSIPPI

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



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

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 MS 39401 gover

06/20/75

CONTACT

CHARLES JORDAN

COUNTY NO.

0800

SUBJECT

COMPLIANCE SCHEDULE STEP COMPLIANCE BY-07/31/75

SOURCE NO. POINT NO.

00001 010

DATE

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT THE ABOVE MENTIONED REQUIREMENT OF YOUR COMPLIANCE SCHEDULE IS TO BE FULFILLED BY THE DATE STATED.

PLEASE KEMEMBER THAT THE ABOVE DATE IS LEGALLY ENFORCEABLE AND THAT RESPONSE MUST BE MADE TO THE MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION EVIDENCING FULFILLMENT OF COMPLIANCE SCHEDULE REQUIREMENTS.

ALSO, PLEASE REMEMBER THAT FAILURE TO FULFILL ANY COMPLIANCE SCHEDULE REQUIREMENT BY THE STATED DATE IS CONSIDERED A VIOLATION OF THE MISSISSIPPI AIR AND WATER POLLUTION CONTROL PERMIT REGULATIONS AND CAN RESULT IN A \$5.000.00 FINE PER DAY OF VIOLATION.

SHOULD YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS, 1. 6

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN **BASSFIELD**

OIL & GAS BOARD QUINCY R. HODGES

BOARD OF HEALTH

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RAY TRIBBLE MONEY



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

govert

06/20/75

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 3940 MS 39401

CONTACT

DATE

CHARLES JORDAN

SUBJECT

COMPLIANCE SCHEDULE STEP COMPLETE CONSTRUCT. -

COUNTY NO.

0800

SOURCE NO. POINT NO.

00001 010

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT THE ABOVE MENTIONED REQUIREMENT OF YOUR COMPLIANCE SCHEDULE IS TO BE FULFILLED BY THE DATE STATED.

PLEASE REMEMBER THAT THE ABOVE DATE IS LEGALLY ENFORCEABLE AND THAT RESPONSE MUST BE MADE TO THE MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION EVIDENCING FULFILLMENT OF COMPLIANCE SCHEDULE REQUIREMENTS.

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SHOULD YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS.

DWIGHT BURKES

DIV. OF AIR POLLUTION CONTROL

STATE OF MISSISSIPPI

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

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

HERCULES INC OF HATT)
WEST 7TH STREET
HATTIESBURG MS 3940 MS 39401 govest

04/24/75

CONTACT

CHARLES JORDAN

COUNTY NO. 0800

SUBJECT

COMPLIANCE SCHEDULE STEP COMPLETE CONSTRUCT. - 05/01/75

SOURCE NO. POINT NO.

00001 010

DATE

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT THE ABOVE MENTIONED REQUIREMENT OF YOUR COMPLIANCE SCHEDULE IS TO BE FULFILLED BY THE DATE STATED.

PLEASE REMEMBER THAT THE ABOVE DATE IS LEGALLY ENFORCEABLE AND THAT RESPONSE MUST BE MADE TO THE MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION EVIDENCING FULFILLMENT OF COMPLIANCE SCHEDULE REQUIREMENTS.

ALSO, PLEASE REMEMBER THAT FAILURE TO FULFILL ANY COMPLI-ANCE SCHEDULE REQUIREMENT BY THE STATED DATE IS CONSIDERED A VIOLATION OF THE MISSISSIPPI AIR AND WATER POLLUTION CONTROL PERMIT REGULATIONS AND CAN RESULT IN A \$5,000.00 FINE PER DAY OF VIOLATION.

SHOULD YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT US.

. .

VERY TRULY YOURS. All Jankson

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MIKE RENNEDY DIV. OF AIR POLLUTION CONTROL

State of Mississippi Air and Water Pollution Control Commission

TOLERANCE PERMIT

To pe ate Air Emissions Equipment
This Certifies That
Hercules, incorporated
Hatt esburg Plant
West 7th St eet

Hattiesburg, Mississippi
has been gra ted permission to operate Arr Emissions Equipment in connection with the operation of the plan or rocess Wood Boilers Nos. 3 & 4

Operation of such a facility shall be in ac ordance with he provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch 58) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control ommission. The plans, specification, schedules, dates and other data submitted to the Commission are filed with and considered a part of this permit.

Issued this	lst		Apri	id considere	19	n unsperm	
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		AIR	AND WA	TER POLLU	TION CON	TROL CON	IMISSION
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	31st		July		7	5	
Expires		_ day of 0001_010			, 19		

Facility No. __0800-00001-010

ADDITIONAL CONDITION NO. 15 IS ATTACHED

№ 2955

CONDITION NO. 15 ADDED TO TOLERANCE PERMIT

COMPLIANCE SCHEDULE ISSUED TO

Hercules, Incorporated Hattiesburg Plant West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-010

This Compliance Schedule is issued to the above named company and is made a part of the Tolerance Permit as additional condition Number Fifteen (15). This action is taken as allowed in Section 7106-116, of the Mississippi Air and Water Pollution Control Act.

This Compliance Schedule is issued in accordance with Mississippi Air and Water Pollution Control Commission Regulation APC-S-2, Section 1.4.6. The above named company must achieve compliance under the Mississippi Air and Water Pollution Control Commission Air Quality Regulations according to the schedule set forth below.

If you do not agree to this schedule, you may request a hearing before the Commission, in writing. If no hearing is requested within thirty (30) days after receipt of this letter, this schedule shall become final and legally enforceable.

COM	MPLIANCE ACTION	DATE OF COMPLETION
1.	Submission of plans for control	4/15/74
2.	Equipment ordered	5/1/74
3.	Equipment delivery and construction startup	9/1/74
4.	Construction complete	5/1/75
5.	Compliance proven	7/31/75

*** INSPECTION ACTION INFORMATION

08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 394
ROSIN SHED DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION MS 39401

TELEPHONE CONTACT ENGINEER

601 5846411 CHARLES JORDAN MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION NUM NUM CARD ACTION TYPE TYPE ACTION DESCRIPTION

02

(18) (52-53) (1-3)(4-7)(8-12) (13-15)(16-17)

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18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59)

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0800

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72)

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UPDATE CODE (80)

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STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	EPORTING:Judy_Linskey

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED
COMPANY NAME
ADDRESS
CITY-STATE-ZIP
DESCRIPTION

08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
POLY-PALE PLANT

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TELEPHONE 601 5846411 CONTACT CHARLES JORDAN ENGINEER MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 006 02 7 16 18-MONTH INSPECTION

DATE PERFORMED COMPLETED ACTION HOURS TAKEN (MO/DAY/YR) RESULTS TO COMPLETE (71-72)

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

FOR ENGINEERING USE ONLY ******** NEXT-ACTION DATE (MO/DAY/YR) (60-65) NEXT-ACTION HRS TO TYPE COMPLETE (73-74) (75-76) UPDATE CODE LETTER CODE CARD STAFF NEXT-ACTION NUMBER (16-17) MEMBER (66-68) (73-74) (18)(80)XX 7 N ENGINEERING COMMENTS CARD **UPDATE** LINE NUMBER CODE COMMENTS (18)(19)(20 - 54)(80) 8 N N 8 2 3 N 8

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STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING:Judy Linskey

STATE OF MISSISSIPPI

COMMISSIONERS

RAY TRIBBLE CHAIRMAN MONEY

JAMES W. CARRAWAY VICE CHAIRMAN BASSFIELD

BOARD OF HEALTH JOE D. BROWN

KENNETH COBB

CHARLES W. ELSE YAZOO CITY

GAME & FISH COMMISSION BARRY O. FREEMAN

OIL & GAS BOARD QUINCY R. HODGES

HERMIT A. JONES



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

TELEPHONES:
ADMINISTRATIVE OFFICES 601-354-7513
AIR DIVISION 601-354-6783
WATER DIVISION 601-354-7661

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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

TO:

Hercules, Hattiesburg (Forrest County) Shell Oil, Thomasville (Rankin County)

FROM:

Wayne B. Anderson

SUBJECT:

SO₂ Monitoring

DATE:

November 25, 1975

On November 24, 1975, I received a call from Charles Jordan of Hercules concerning the monitoring for SO_2 that will be required if the company proceeds with plans to increase the H_2S flared from the Delnav plant. His concerns were:

(1) What length of time would monitoring be required?

My answer - at least one year and possibly indefinitely but that this could only be determined after about a year of monitoring.

(2) Were there other people that Hercules could contact regarding previous experience with similar monitoring programs?

My answer - yes, the most probable cooperative company was Shell Oil, Thomasville.

I contacted Mr. J. H. Williams at Shell in New Orleans and asked if he would be willing to discuss their monitoring experiences with Hercules. Mr. Williams said yes but indicated that Mr. Breithaupt would be the best person to talk with. I then re-contacted Hercules and relayed the agreement to discuss the matter.

WBA:sr

Delnas Plant

October 21, 1975

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

SUBJECT: Sulfur Dioxide Monitoring

Dear Mr. Jordan:

Pursuant to our conversation of October 20, 1975, I am forwarding some information you may find helpful.

The photocopy from the April 30, 1971, <u>Federal Register</u> is a discussion of an SO₂ reference method utilizing wet analysis.

The photocopy from the APCA Journal lists suppliers of instrumentation used in 50_2 determination.

For purposes of long-term monitoring continuous monitors are often easier to use and, if properly handled, are probably more accurate than the wat analysis. Three basic methods are used in continuous units: Flame Photometry, Couldmetry, and Chromatography. Of the suppliers on the list, the most widely known are Bendix, Beckman and Philips.

He suggest that you determine, as soon as possible, the sites you propose to locate memiters, and submit this information to the Commission for review.

We also suggest that you proceed with contacts to the suppliers of your choice to assess the availability and practicality of instruments and to gather literature for subsequent submittal to the Commission.

Hr. Charles S. Jordan Page 2 October 21, 1975

Until the monitoring program has been finalized we cannot preceed with reconsideration of the proposal to expand the Delnay Plant.

If you have any questions, please contact us.

Very truly yours,

Wayne B. Anderson Chief of Engineering Division of Air Pollution Control

WBARON

Enclosures

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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

CHARLES W. ELSE YAZOO CITY

GAME & FISH COMMISSION BARRY O. FREEMAN

OIL & GAS BOARD QUINCY R. HODGES

HERMIT A. JONES



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

TELEPHONES:
ADMINISTRATIVE OFFICES 601-354-7513
AIR DIVISION 601-354-6783
WATER DIVISION 601-354-7661

October 17, 1975

COMMISSIONERS

MARINE CONSERVATION COMMISSION CHARLES H. LYLES

BOARD OF WATER COMMISSIONERS JACK PEPPER

JOE STONE

ASSOCIATE MEMBERS

STATE PARK SYSTEM WILLIAM M. BARNETT

A & I BOARD HAROLD A. CROSS

GEOLOGICAL SURVEY W. H. MOORE

Mr. Frank H. Gardner, Jr.
Chemical Superintendent
(Hercules, Incorporated)
P.O. Box 1937
Hattiesburg, Mississippi 39401

SUBJECT: Application to Expand Delnav Plant

Dear Mr. Gardner:

The referenced application has been reviewed; however, this application cannot be approved since the requirements of Section 4.2(b), Regulation APC-S-1 have not been met.

Specifically, Hercules Incorporated has not indicated by any information heretofore submitted that the requirements on monitoring will be carried out.

Should you wish to show, by submittal of additional data, that the 2000 parts-per-million SO_2 limit will be met or that you have developed an SO_2 monitoring program (as required in the fourth paragraph), then we will recommence review procedures on this proposal. Until additional data is submitted, the application for the Delnav plant expansion is disapproved and any increase of emissions from the plant will constitute a violation of Commission Regulations.

If you have any questions please contact us.

Very truly yours

Wayne D. Anderson

Chief of Engineering

Division of Air Pollution Control

WBA:sr

cc: Charles S. Jordan

Wager - commit



FILE

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

October 14, 1975

State of Mississippi Air and Water Pollution Control Commission Air Division P. O. Box 827

Jackson, Mississippi 39205
Attention: Jerry Stubberfield

Gentlemen:



This is in reply to your letter of September 26, 1975. We respectfully request that you issue Hercules a permit to construct as requested in our letter of June 20, 1975 under Regulation APC-S-1 Section 4.2 (b). As noted in our letter, our calculations indicate that SO₂ emissions for the increased capacity are well below the national secondary standard.

When the regulations are changed as you expect, Hercules Incorporated will make any necessary modifications to remain in compliance.

We appreciate your suggestion to delay our project or revise present SO_2 control, but market demands indicate that we should complete these modifications promptly. We feel that anticipation of regulation changes introduces too much uncertainty for economic design.

Yours very truly,

HERCULES INCORPORATED

Frank H. Gardner, Jr.

Chemical Superintendent

FHGJR:p

LETTER SENT DENYING

APPL UNTIL DATH SUBMITTED
TO SHOW COMPLIANCE WITH
2000 PPM LIMIT OF MONITORING
AHRANGED PER 4 216) LITTE PARA)
LIPH 10/17/75

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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

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OIL & GAS BOARD QUINCY R. HODGES

HERMIT A. JONES



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

TELEPHONES:
ADMINISTRATIVE OFFICES 601-354-7513
AIR DIVISION 601-354-6783
WATER DIVISION 601-354-7661

September 26, 1975

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

Mr. Charles S. Jordan
Senior Chemical Engineer
Hercules Incorporated
P. O. Box 1937
Hattiesburg, Mississippi 39401

Subject: Application To Expand Delnav Plant

Dear Mr. Jordan:

We have reviewed your application and find that Regulation APC-S-1, Section 4.2(b), would apply in this case. However, we have been notified by the Environmental Protection Agency that disapproval of this section of our regulations is imminent. Therefore, approval of your application at this time would be pointless since the regulation will probably be rewritten in the very near future.

EPA has indicated that the Commission's allowance to exceed 2000 ppm S02 in this regulation violates the Federal requirements on "intermittent control" and therefore is assisting us in a review of sources (particularly gas field flares) to determine an alteration to this regulation.

We are certain that the allowance to exceed 2000 ppm will be removed; we do not know if the 2000 ppm level will be changed however.

If we were to approve this application now, then additional controls would have to be added later to meet the new regulations. Therefore, we suggest that you consider either delaying this project until the new regulation is enacted and then revise your controls or continue now and revise your SO_2 control to meet 2000 ppm now.

If you have any questions, please contact us.

Very truly yours,

Wayne By Anderson Chief of Engineering

Division of Air Pollution Control

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WBA: dw

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HERCULES INCORPORATED

HATTIESBURG. MISSISSIPPI 39401 June 9, 1975



AIR & WATER COLLETION

Mr. E. P. Hardison, Jr.
Senior Plant Review Engineer
Division of Air Pollution Control
Air & Water Pollution Control Commission
State of Mississippi
P. O. Box 827
Jackson, Mississippi 39205

Dear Sir:

Regarding your May 9th letter, please find enclosed the requested operating information on the Delnav Plant flare tower.

We are not aware of any breakdown or malfunction within the last six months which would have resulted in $\rm H_2S$ being emitted directly to the atmosphere. If our flare tower is not in proper operating condition, we do not run the process which liberates $\rm H_2S$ for flaring.

On occasions there are localized malodorous sulfurous vapors which result primarily from our waste water digestion vent, along with the breathing of tank vents.

We have just completed some major improvements in the operation and control of our waste water digestion system to reduce its odors and are presently working on a common vent system to properly control tank breathing vents. This should be completed by next week.

If you have any further questions, please do not hesitate to contact us.

Very truly yours,

Charles S. Jordan

Senior Chemical Engineer

CSJ/klm

Enclosure



Delnav Flare

Flare Use: 12 Hours Operation)

210 515 37.5 Hour Cycle 25.5 Hours Downtime)

Flare Gas Composition: 89% H₂S 11% Benzene

H₂S Flow Rate: 13.2 Grams/Second

Estimated Flame Temperature: 1600°F.

OO5
FILE COPY May 9, 1975 Mr. Fred Lane, Plant Engineer Hercules Incorporated) West 7th Street Hattiesburg, Mississippi 39401 Dear Mr Lane: It has come to my attention that on one or more occasions hydrogen sulfide is being emitted from the Delnav plant. On these occasions it appears that the hydrogen sulfide is not being directed to the flare but is being emitted directly into the atmosphere. As you know, the Operating Permit for the Delnav plant has an additional condition attached to it stating that if this facility creates a problem due to odors additional control will be required. Please submit complete operating information on the flare. We would like to know how often the flare is used, exactly what gases are flared and all of the operating characteristics of the flare, such as temperature, flow rate, and so forth. If this problem has been the result of some malfunction or breakdown, please so indicate. However, it appears from the nature of the problem that this facility may be out of compliance with the hydrogen sulfide process emissions limitations. If you have any questions, please contact me. Very truly yours, B. P. Hardison, Jr. Senior Plan Review Engineer Division of Air Pollution Control EPHir:bw

Forrest & Water Pollution Control Commission enpt. 005

STATE OF MISSISSIPPI **MEMORANDUM** Charles Chisolm and Jerry Stubberfield THIS COPY FOR TO: FROM: John Smith SUBJECT: Hercules, Inc-Hattiesburg DATE April 29, 1975 At the request of Chairman Carraway, Mr. Jim Blount, Area Director of Occupational Safety and Health Agency is beginning to report to us any condition which appears to be air and water pollution and is not subject to their control. Specifically at Hercules, Inc. in Hattiesburg. This was reported: AIR: H₂S is coming out of one of their stacks with no scrubber on it. WATER: At night, they drain tanks cars, which contain remains of a variety of chemicals, out on the ground. Please investigate. Thanks,

JHS:bc

John H. Smith Deputy Director Hercules Inc.
Dalnav Facility, Hattiesburg

110-\$8\$\$\$\$\$-\$Josrest County

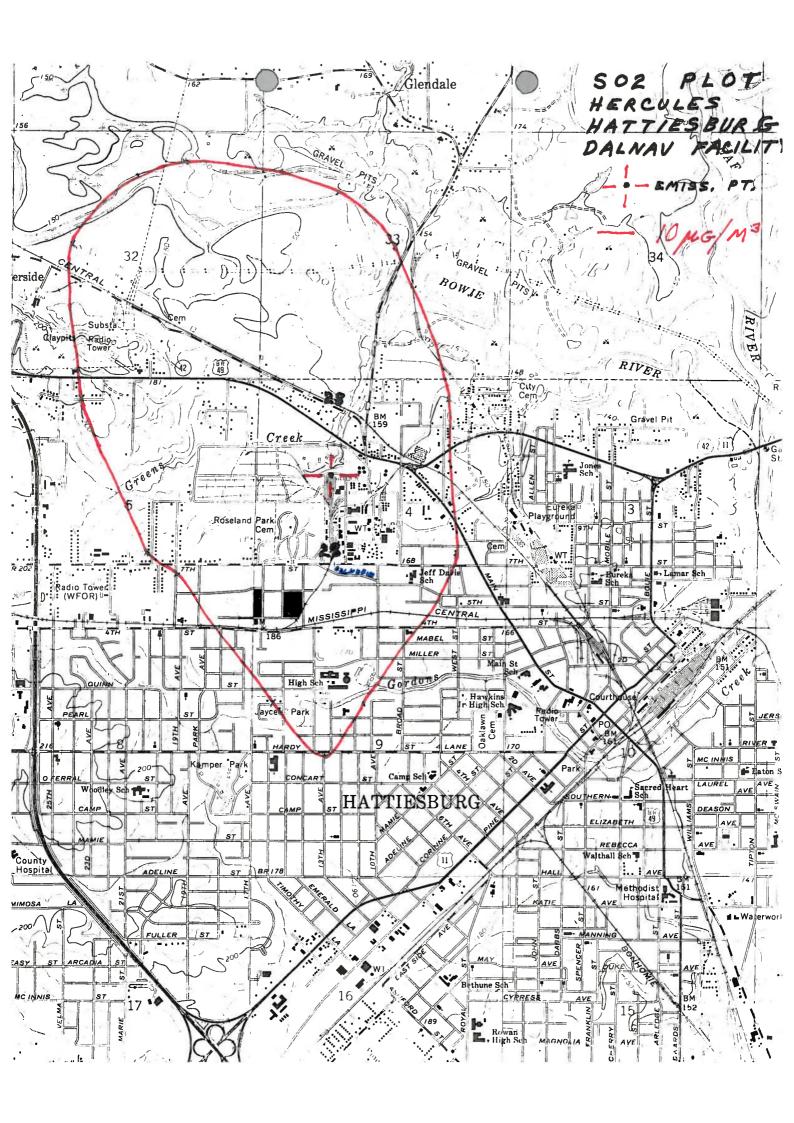
8/28/1973

although there are concentrations of 502 up to 28 µg/m approximately 0.5 km north and south of the Dalnov plant, the concentration drops off quickly. It is 10 µg/m³ at approximately 1.5 km away and 5 µg/m³ at approximately 2.5 km away.

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*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED 08/06/75
COMPANY NAME HERCULES INC OF HATT
ADDRESS WEST 7TH STREET
CITY-STATE-ZIP HATTIESBURG MS 39401
DESCRIPTION DELNAV PLANT

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TELEPHONE 601 5846411 CONTACT CHARLES JORDAN ENGINEER MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM! NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 005 02 7 16 18-MONTH INSPECTION

DATE PERFORMED COMPLETED ACTION HOURS TAKEN (MO/DAY/YR) RESULTS TO COMPLETE (71-72)

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN
OFFICE ENGINEER-CHECK DETAILS ON
OPERATION OF FLARE-TIME USED-AMOUNT
GAS USED AS FUEL-AMOUNT H25 BURNED

FOR ENGINEERING USE ONLY ****** NEXT-ACTION HRS TO COMPLETE LETTER CODE NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) (60-65) STAFF UPDATE MEMBER CODE (66-68) (73-74) (18)(75 - 76)(80) XX 7 N ENGINEERING COMMENTS ***** ***** CARD UPDATE LINE NUMBER CODE COMMENTS (18) (80) (19) (20 - 54)N N 8 2 N 8 3 N 8 4

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RI	EPORTING: Judy Linskey

General report is in entire source file.



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

June 20, 1975



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

Attention: Jerry Stubberfield

Gentlemen:

Please find the attached Application for Approval to Construct for anticipated modifications to increase our existing Delnav Plant capacity.

Our calculations, based on EPA methods and interpreted in terms of National Ambient Air Quality Standards, for the Delnav flare tower indicate SO₂ emissions for the increased capacity are well below the national secondary standard.

Due to sales demands our earliest project completion date is of the utmost importance. Your prompt consideration will be greatly appreciated.

Yours very truly,

HERCULES INCORPORATED

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Attachment

INSPECTION ACTION INFORMATION ***

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
UNION IRON WORKS BOILERS

601 5846411 CHARLES JORDAN MIKE KENNEDY TELEPHONE CONTACT ENGINEER

CARD ACTION TYPE TYPE (18) (52-53) AGCY COUNTY CODE CODE (1-3) (4-7) SOURCE EM. PT. ACTION NUM DESCRIPTION

(8-12)(13-15) (16-17)

7 18-MONTH INSPECTION 110 0800 00001 004 02 16

DATE PERFORMED (MO/DAY/YR) (54-59)

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72)

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER 12

********* FOR ENGINEERING USE ONLY LETTER CODE NEXT-ACTION HRS TO TYPE COMPLETE (73-74) (75-76) CARD NEXT-ACTION DATE (MO/DAY/YR) (60-65) STAFF MEMBER UPDATE NEXT-ACTION NUMBER (16-17) CODE (77-78)(66-68) (73-74) (18)(80) XX 7 N ENGINEERING COMMENTS ***** **UPDATE** CARD LINE TYPE NUMBER COMMENTS CODE (18) (19) (20 - 54)(80) 1 N 8 2 N 3 8 N 8 4

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

INSPECTION ACTION INFORMATION

DATE SCHEDULED 08/06/75 COMPANY NAME ADDRESS CITY-STATE-ZIP HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 MS 39401 DESCRIPTION TALL OIL PLANT

TELEPHONE 601 5846411 CHARLES JORDAN MIKE KENNEDY CONTACT ENGINEER

AGCY COUNTY SOURCE EM. PT. ACTION NUM NUM NUM SOURCE EM. PT. ACTION CARD ACTION NUM NUM NUM TYPE TYPE (8-12) (13-15) (16-17) (18) (52-53) ACTION DESCRIPTION AGCY COUNT CODE CODE (1-3) (4-7)

110 0800 00001 003 02 7 16 18-MONTH INSPECTION

COMPLETED ACTION RESULTS (69-70) DATE PERFORMED HOURS TAKEN (MO/DAY/YR) (54-59) TO COMPLETE (71-72)

UPDATE CODE (80)

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> SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER 2

******* FOR ENGINEERING USE ONLY

CARD NEXT-ACTION
TYPE DATE (MO/DAY/YR)
(18) (60-65) NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION HRS TO LETTER TYPE (73-74) (75-76) (77-78) STAFF **UPDATE** MEMBER CODE (66-68) (73-74) (80)XX 7 N

> ****** ENGINEERING COMMENTS *****

CARD TYPE (18) 8	LINE NUMBER (19) 1	COMMENTS (20-54)	UPDATE CODE (80) N
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Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DAIE	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

INSPECTION ACTION INFORMATION ***

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP 08/06/75 TELEPHONE 601 5846411 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401 CONTACT CHARLES JORDAN MIKE KENNEDY DESCRIPTION MILLROOM & EXTRACTR HOUSE **ACTION**

AGCY COUNTY SOURCE EM. PT. ACTION CODE CODE NUM NUM NUM (1-3) (4-7) (8-12) (13-15) (16-17 CARD ACTION TYPE TYPE TYPE TYPE (18) (52-53) DESCRIPTION (8-12) (13-15) (16-17)

110 0800 00001 001 02 7 16 18-MONTH INSPECTION

DATE PERFORMED COMPLETED ACTION HOURS TAKEN (MO/DAY/YR) (54-59) RESULTS (69-70) TO COMPLETE (71-72)

5

6

7

8

8

UPDATE CODE (80)

C

N

N

N

12 SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGR

******** FOR ENGINEERING USE ONLY ********* NEXT-ACTION HRS TO COMPLETE (73-74) (75-76) NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) (60-65) STAFF MEMBER LETTER CODE UPDATE CODE (66-68) (73-74)(77-78)(80)7 XX N ENGINEERING COMMENTS ***** CARD TYPE (18) 8 LINE UPDATE COMMENTS NUMBER CODE (19)(20 - 54)(80) N 8 2 N 3 8 N 8 4 N

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.



Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

OIL & GAS BOARD QUINCY R. HODGES

BOARD OF HEALTH

MARINE CONSERVATION COMMISSION W. J. DEMORAN

W. E. GUPTON JACKSON

HERMIT A. JONES CANTON

RAY TRIBBLE



Glen Wood, Jr.
EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

SIXTH FLOOR ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205

Bonest

06/30/75

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

COUNTY NO.

0800

COMMISSIONERS

COMMISSIONERS

CHARLES W. ELSE

ASSOCIATE MEMBERS

STATE PARK SYSTEM

GEOLOGICAL SURVEY

DR. JOHN M. KING

AVERY WOOD BOARD OF WATER

JACK PEPPER

YAZOO CITY

A & I BOARD

W. H. MOORE

PAUL BURT

GAME & FISH COMMISSION

SUBJECT

PERMIT APPLICATION RECIEVED

SOURCE NO. POINT NO. 00001

DATE

09/24/75

GENTLEMEN

WE HAVE RECEIVED YOUR APPLICATION CONCERNING AN AIR POLLUTION EMISSION SOURCE. OUR STAFF IS IN THE PROCESS OF REVIEWING YOUR APPLICATION AND YOU WILL HEAR FROM US WITHIN NINETY DAYS.

IF YOU SHOULD HAVE ANY QUESTIONS CONCERNING THE STATUS OF YOUR APPLICATION PLEASE CONTACT THIS OFFICE.

VERY TRULY YOURS.

DWIGHT BURKES DIV-OF AIR POLLUTION CONTROL

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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	6th	day of .	February	, 19 <u>74</u>	
d 1		AIRA	ND WATER POL	LLUTION CONTROL	L COMMISSION
				Executive Director	-0
Expires6	th	day of _	February	, 19	

ADDITIONAL CONDITION IS ATTACHED

Facility No. 0800-00001-035

694

ADDITIONAL CONDITION IS ATTACHED

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-035

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	[8]
AOCD.	

#35 PARACOL

*

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

2. Mailing Address County Location (UTM or LAT) 3. City State Zip Code Telep 4. Name of Person Completing Form Title	
	phone
	phone
	 †
4. Name of Person Completing Form Title	
9	
5. Person to Contact on Air Pollution Matters	
Title Telephone	
	-
6. Major Activity	
SIC number Warehouse	
☐ Retail or Wholesale Store ☐ Hotel or Motel ☐ Residentia	l or Apts.
School or Church Hospital or Lab Other (Attach Ex	planation)
7. Signature of Owner or Authorized Company Official Date	

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.

information may be obtained.)

- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet,
 etc. Specify. Average amount Burned per Year. Gallons, Tons,
 Million cubic feet, etc. Specify. Heat Content of Fuel. BTU
 per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type
 and supplier's name at bottom of page in spaces provided so that

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

	FORM B	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	OUIPMENT isposal)			Page 1
Company Name		Address			for Agency use Only	nly
	11					
Operating Schedule	Information for Calender Year	Calender Year	Date			
Hours / Day Days / Week Weeks / Year	19	st				
3		4	S	9	7	
Reference Number Manufacturer and Mobel Number	Jumber	Rated Capacity	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
		}				
						5
٠						
				(8)		
1* BURNER CODES				2* USAGE CODES	DES	
Cyclone furnace Pulverized coal Spreader Stoker Hand fired	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical)	of Air) nical)		1. Boiler, Steam 2. Boiler, Other 3. Air Heating fo	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage	
5. Other stoker (specify)	10. Rotary Cup Oil			5. Others (sp	ecify)	

- 40		ent h					•							
		nt Percent r Ash			*.									
ISE ONLY)		Parcent Sulfur	2	:										
(FOR AGENCY USE ONLY)	Fuel Data	Heat Content BTU/Gal, etc. (Specify Units)				V								
	3	Amount Per Year (Specify Units)						¥\$			ľ	1 1	I	
PAGE 2	0	Maximum Amount Per Hour (Specify Units)								Supplier				
FORM B PAGE 2		Fuel Type												
		Exit Gas Temperature Degree F.								вdА				
	Stack Parameters	Exit Gas Velocity Feet/Sec.								Fuel Type				
	Stack P.	Inside Exit Dia. Feet								IERS:				
		Stack Height Feet								FUEL SUPPLIERS:				
		Reference Number		-										

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number Ę

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- 1. Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

PERATIONS
NG PROCESS O
MANUFACTURIN
FORM C

				Product Output* ntity Quantity Hour Per Year		
				Produ Quantity Per Hour		
				Number of Emission Points To Air		
	8	Date		nput Quantity Per Year	4793	
				Feed Input Cuantity Per Hour	0.54	
Address		Information for Calendar Year	19 72	Rated Process Capacity Tons/Hour	6.7	
		Information	19	lame		
			Days / Year	Process or Unit Operation Name	Lina	
Company Name		Operating Schedule	. Hours / Days / Year	Proces	Johnsol	
			24 HOL	Reference Number		

*Specify Units of Measure Used

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Design	7			Stack Data		Air Pollut	Air Pollution Control Equipment	.	
Feet Feet Sec. OF (usr Table 1) Dosign	Number	Height	Inside Unit Dia.	Exit Gas Velocity	Exit Gas Temperature		Tvpe*		n Efficiency
		Feet	Feet	Feet/Sec.	OF.		(use Table 1)	Design	Actual
						Nowe			

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C	PAGE 3	(FOR AGENCY USE ONLY)
40		

11	12				
		Process Emissions*		1	
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
,	None DONATED			MEASURED IN AREA	
	NONE JUNETED	N. D.		HACT.	
					7
		*			
				 	

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	ame		Information for Year	(Agency l	(Agency Use Only)
Address	s		Date		
31					* 4
B Description of Waste Materials	ပ		Q		ш
Type (Describe)	Revinum Ameur Per Dey -Remark	# 10	Amount Per Year (Tons)	Meth	1* Method of Disposal
None					
If Waste Disposal is by Incineration, Specify the Following:	ify the Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe) Other (describe)		Rotary Flue Fed		
Z. Wanutacturer's Name: Model Number			570.		
Rated Capacity	Pounds / Hour	/ Hour	Ty	Type Waste	
S. Cuandy burned:	Pounds / Day Tons / Year	/ Day /ear			
4. Operating Schedule	Hours / Day	Day			
	Days / Year	/ear	*	*1 Disposal Method Codes	
			1. Open Burning	5. Buri	5. Burned in Boiler or Furnance
			 Landfill (No Burning) Incinerator (Complete rest of Form) 		6. Other (Specify)
			4. Conical Burner (TeePee)		

FORM D PAGE 2

(AGENCY USE ONLY)

			<u> </u>		
5.	Auxiliary	Fuel:	Туре		
			Amount/Year (Specify Units)	
			Heat Content		
			Percent Sulfur		
			Percent Ash		
			Supplier's Name		
6.	Pollution	Control Equipment	: Manufacturer		
			Model Number		
			% Efficiency		
			Туре		
			GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	3	Height		_ Feet
		-10	Inside Exit Diameter		Feet
			Exit Gas Velocity		Feet/Sec.
			Exit Gas Volume		SCFM
			Exit Gas Temp.		°F.
8.	Estimated	Emissions From Ref	use Incineration:		
		Name:		Basis of Estimates:	
	*	Particulates	Tons/Year		

Sulfur Oxides

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other

Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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_	6th	day of _	February	19 74	
		- Daniel	1		
		AIR AN		TION CONTROL CO	MMISSION
			Exe	cutive Director	
Expires	6th	day of	February	, 19 77	
Essility No.	0800-000	101-034		,	

ADDITIONAL CONDITION IS ATTACHED

693

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-034

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

+

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	· · · · · · · · · · · · · · · · · · ·		
Facility No.:			·
AOCR:			

#34 Colome 5 at To Oil

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FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

School or Church Tity State Zip Code Telephone Title Title Telephone Title Telephone Title Telephone Title Telephone	 Owner of Source 			Date Submitted
State Zip Code Telephone Title Title Title Title Title Title Telephone Approximation Activity Title Telephone				
ame of Person Completing Form Title Person to Contact on Air Pollution Matters Title Telephone Title Telephone Manufacturing or Processing Office	2. Mailing Address		County	
ame of Person Completing Form Title Person to Contact on Air Pollution Matters Title Telephone Title Telephone Manufacturing or Processing Office				
ame of Person Completing Form Title Person to Contact on Air Pollution Matters Title Telephone Ajor Activity The phone Manufacturing or Processing Office Warehouse Retail or Wholesale Store Hotel or Motel Residential or A School or Church Hospital or Lab Other (Attach Explanation)	3. City	State	Zip Code	Telephone
Title Telephone ajor Activity mber Manufacturing or Processing	3	2		
Title Telephone ajor Activity mber Manufacturing or Processing	4. Name of Person	Completing Form	Ti	itle
Title Telephone ajor Activity mber Manufacturing or Processing				
ajor Activity mber Manufacturing or Processing	5. Person to Conta	ct on Air Pollutio	n Matters	
ajor Activity mber Manufacturing or Processing			1	
mber Manufacturing or Processing	Tit	le	Te	l ephone
mber Manufacturing or Processing				
mber Manufacturing or Processing				in .
Retail or Wholesale Store Hotel or Motel Residential or A School or Church Hospital or Lab Other (Attach Explanation	6. Maior Activity			
School or Church Hospital or Lab Other (Attach Explanation)				
(Attach Explanation	SIC number		ffice 📙	Warehouse
ignature of Owner or Authorized Company Official Date	SIC number	Processing 0	_	12
	SIC number Manufacturing or Retail or Whol	Processing	otel or Motel	Residential or Apts
	6. Major Activity			

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel typ

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT Jisposal)			Page 1
Company Name	Address			for Agency use Only	
Operating Schedule	Information for Calender Year	Date			
Hours / Day Days / Week Meeks / Year INTERNITTENT	19 72			х.	
2 3	4	3	9	7	
Reference Mirrobov Manufactures and Mobel Number	Rated Capacity	Type of Burner Unit	Usage (*C	Most Usage	W. Creat has
9		1	2 anna asn)	Serior Se	A Space ne
// _					
				12 8	
1* BURNER CODES			2* USAGE CODES	DES	
€	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil		1. Boiler, Steam 2. Boiler, Other 3. Air Heating fo	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage	

			Percent Ash	0		•		_							
NLY)			Pergerns Per Sulfar A	194016						i e		50			
(FOR AGENCY USE ONLY)	5	Fuel Data		1025 SCF D.											
		Fue		92.000 mer			2.0				1.1	T	F.	1	1.1
FORM B PAGE 2				13.0 mer						Supplier					
FORM B				NAT GAS											
			Exit Gas Temperature Degree F.							Ape					
		Stack Parameters	Exit Gas Velocity Feet/Sec.							Fuel Type					
		Stack P	Inside Exit Dia. Feet	2.0						ERS:					
			Stack Height Feet	001						FUEL SUPPLIERS:					
			Reference Number												

CALE Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate 0 Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number NONE Reference Number 11

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

		Product Output* antity Quantity Per Year Sto 4910
		Product Quantity Per Hour
		Number of Emission Points To Air
	Date	Feed Input Ouantity Out Per Year A 910
		Ouantity Per Hour 0, 56
Address	Information for Calendar Year	Rated Process Capacity Tons/Hour
	Information fo	Name Name
Company Name	Operating Schedule Inf Hours / Days / Year Justem Tean	Column 5 87 Tale Oberation Name
	A Ho	Reference Number

*Specify Units of Measure Used

FORM C PAGE 2

(FOR AGENCY USE ONLY)

		len							
	Collection Efficiency	Actual							
		Design							
Air Pollution Control Equipment	Tvpa*	(use Table 1)							
Air Pollut									
	Manufacturer and Model Number		None						
	Exit Gas Temperature	Ь							
Stack Data	Exit Gas Velocity	Feet/Sec.							
S	Inside Unit Dia.	Feet	0.2						
	Height	Feet	25						
7	Number		_						

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

 	(COD ACENCY LISE ONLY)
FORM C PAGE 3	(FOR AGENCY USE ONLY)
12	

Particulates	Process Emissions*			
Particulates				
	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Comments Only)
None Derected	N. D.		MEASURED IN AREA	
NUNC DELECTED	74. 0.	2		
	-			
E 41				

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	пе	Infor	Information for Year	(Agency Use Only)
		299		
Address			Date	
				* 1
B Description of Waste Materials	v		. a	ш
Type (Describe)	Maximum Amount Per Day (Pounds)	ınt s	Amount Per Year (Tons)	1* Method of Disposal
None				
f Waste Disposal is by Incineration, Specify the Following:	y the Following:			
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe) Other (describe)		Rotary Flue Fed	
2. Manufacturer's Name:				
Rated Capacity	Pounds	Pounds / Hour	Type Waste	Vaste
3. Quantity Burned:	Pounds / Day Tons / Year	s / Day Year		
4. Operating Schedule	Hours / Day	/ Day		
	Days / Year	Year		*1 Disposal Method Codes
			1. Open Burning	5. Burned in Boiler or Furnance
			 Landfill (No Burning) Incinerator (Complete rest of Form) 	

4. Conical Burner (TeePee)

FORM D PAGE 2

						(AGENCY USE ONLY)	
					15 al e. I		
5.	Auxiliary	Fuel:		Ty	уре		
				An	mount/Year (Specify Un	its)	
				Не	eat Content		5
				Pe	ercent Sulfur		
				Pe	ercent Ash		
				Su	upplier's Name		
6.	Pollution	Control	Equipme	ent:	Manufacturer		
					Model Number		
					% Efficiency		
					Туре		
	×				GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:				Height	****	_ Feet
				1	Inside Exit Diameter		Feet
					Exit Gas Velocity		Feet/Sec.
					Exit Gas Volume		SCFM
					Exit Gas Temp.		o _F .
8.	Estimated	Emission	s From	Refuse	Incineration:		
		Name:				Basis of Estimates:	

Tons/Year

Particulates

Sulfur Oxides

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative 12 silica gel — nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group - Other

Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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.

4	and the same of th	
Issued this 6th	day of	
,	AIR AND WATER POLLUTION CONTROL COMM	ISSION
	Executive Director	
Expires 6th	day of <u>February</u> , 19 <u>77</u> .	
Facility No0800 -	00001-033	
ADDITIONAL C	ONDITION IS ATTACHED	

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-033

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	 	-
Facility No.:	 	
AOCB:		

#33 SINTHETIC FINE DIZ

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2 2 5

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FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Source	e 		Date Submitted
2. Mailing Addres	s	County	Location (UTM or LAT-Long)
3. City	State	Zip Code	Telephone
1. Name of Person	Completing Form		Title
8		· · · · · · · · · · · · · · · · · · ·	
. Person to Conta	act on Air Polluti	on Matters	
Tit	tle		Telephone
 			
 		Office	Warehouse
IC number	Processing		
IC number Manufacturing or Retail or Whol	Processing		Residential or Apt
Retail or Whol	Processing	Hotel or Motel Hospital or Lab	Residential or Apt

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel types.)

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT isposal)			Page 1
	Company Name		Address			for Agency use Only	y _f r
Ō	Operating Schedule	Information for	Information for Calender Year	Date	- C		
	Hours / Day Days / Week Weeks / Year	19	1	ä			
2	3		4	2	9	7	
Reference	Manufacturer and Mobel Number	umber	Rated Capacity 10 ⁶ BTU/hr •	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	age % Space heat
	None						
	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil	e of Air) hanical)		2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp 3. Air Heating for 8 4. Air Heating for 6 5. Others (specify)	USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

FORM B PAGE 2

(FOR AGENCY USE ONLY)

Percent Ash Percent Sulfur Heat Content BTU/Gal, etc. (Specify Units) Fuel Data Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) Supplier Fuel Type Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

) ,		_ 1	ı	ı	<u> </u>	I	ı	1
	Basis	timate				•	*					
	_	_										
K.	-	Other	Coperation				*					
(FOR AGENCY USE ONLY)	.2	Emissions (1 ons/ 7 ear)										
IGENCY		I Suoissim										
(FOR A		Darticulate			e e							
		ncy										
		Efficiency										
FORM B PAGE 3	nent	Type*										
FOR 12	Air Pollution Control Equipment	Manufacturer and Model Number										
	Dafaconco	Number										

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

	Date	
Address	Information for Calendar Year	19 72
Company Name	Operating Schedule	A4 Hours / Days 365 Days / Year

Daforono		Rated Process	Feed Input	nput	Number of	Product	Product Output*
Number	Process or Unit Operation Name	Capacity Tons/Hour	Quantity Per Hour	Quantity Per Year	Emission Points To Air	Quantity Per Hour	Quantity Per Year
/	SYNTHETIC INE OIL PROCESS	7.8	1.4	12,190		1.4	12.190
							٠

FORM C PAGE 2

(FOR AGENCY USE ONLY)

1		(i	1	ı	l		1	ŀ
	Efficiency	Actual								
#	Collection Efficiency	Design								
Air Pollution Control Equipment	* 60 > 1	(use Table 1)								
Air Pollu	Manifacturer and Model Number		NONE							
	Exit Gas	Jo L								
Stack Data	Exit Gas	Feet/Sec.								
	Inside	Feet.								
	Height	Feet								
Č	Keterence Number		/							

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)
	A.
	<u> </u>

11	12				
Reference Number		Process Emissions*	Others	Basis	
Number	Particulates	Sulfur Oxides	(Specify by chemical composition)	for Estimation	(Agency Corments Only)
	1 0	1 -		MEASURED IN AREA	
	Hone Detected	N.D.		AREA	
	20				
	-	···			
·/	-				

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name		Info	Information for Year		(Agency Use Only)
					8
Address			Date		
			-		
B Description of Waste Materials	၁		٥		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	# 73	Amount Per Year (Tons)		1* Method of Disposal
NONE					
If Waste Disposal is by Incineration, Specify the Following:	e Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)		Rotary Flue Fed		
2. Manufacturer's Name:					
Model Number		*	1.1		
Hated Capacity 3. Quantity Burned:	Pounds / Hour Pounds / Day	/ Hour / Day	Ty	Type Waste	
A Charles Calabata	Tons / Year	/ear			
4. Operating schedule	Hours / Day Days / Year	Day fear	*	*1 Dienceal Method Codes	Codes
			1. Open Burning		5. Burned in Boiler or Furnance
			2. Landfill (No Burning)	,	6. Other (Specify)
			 Incinerator (Complete rest of Form) Conical Burner (TeePee) 	st of Form)	

FORM D RAGE 2

(AGENCY USE ONLY)

		, . ,		11 1
5.	Auxiliary Fuel:	Туре		
		Amount/Year (Specify Units)		·
		Heat Content		
		Percent Sulfur	Po-	
	ω.	Percent Ash	*	
		Supplier's Name		
6.	Pollution Control Equipment:	Manufacturer		
		Model Number		
		% Efficiency		
		Туре		<u> </u>
		GPM Water Flow (If Wet Scrubber)	2	¥1 2/
7.	Stack Data:	Height		_ Feet
		Inside Exit Diameter		Feet
		Exit Gas Velocity		Feet/Sec.
		Exit Gas Volume		SCFM
		Exit Gas Temp.		°F.
8.	Estimated Emissions From Refu	use Incineration:		
	Name:		Basis of Estimates:	

Tons/Year

- Particulates

Sulfur Oxides

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon — regenerative

12 silica gel — nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption — scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other

Specify



e e

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Sulfate Turpentine Refining 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 th	is <u>6th</u>	day of _February	, 19 <u>74</u> .	
		AIR AND WATER POLL	UTION CONTROL CON	MISSION
		E	xecutive Director	21
	6+h	Eah		

Expires 6th day of February, 19 77.

Facility No. <u>0800-00001-032</u>

ORM ADDITIONAL CONDITIONS ARE ATTACHED

691

MPC FORM



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-032

- 14. This permit is issued with an understanding by the Mississippi Air & Water Pollution Control Commission that the open-top ditches and sump which allow fugitive mal-odors to escape will be closed or otherwise corrected to eliminate as much odor as possible.
- 15. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air & Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agend	су
Date Received:	
Facility No.:	
AQCR:	

230 Crude Turps Bining UNOT.

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Source	e		Da	te Submitted
2. Mailing Addres	s	County	(U [.]	Location
		4		
3. City	State	Zip Code		Telephor
	4			
4. Name of Persor	Completing Form		Titl	е
× 2		2		
5. Person to Con	act on Air Pollut	ion Matters		
	· · · · · · · · · · · · · · · · · · ·			
T	itle		Telep	phone
			#II	
	,			
6. Major Activit	,			
6. Major Activit		Office	∐ Wa	arehouse
SIC number				
SIC number	or Processing [☐ R	esidential o ther
SIC number Manufacturing Retail or Wh School or Ch	or Processing [Hotel or Motel	— Ro	esidential o

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel typ

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.
 Manufacturer and Model Number. Information from nameplate.
 Type. Use Table 1, Page 16. If a wet scrubber, specify
 gallons per minute of water flow and water pressure if known.
 Efficiency. Percent design control on pollutants and actual
 percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT (isposal)	÷		Page 1
	Company Name		Address			for Agency use Only	July
Opera	Operating Schedule	Information f	Information for Calender Year	Date	Sec		
	Hours / Day Days / Week Weeks / Year	19_					
2	8		4	2	9		7
Reference Number	Manufacturer and Mobel Number	- eq E	Rated Capacity	Type of Burner Unit	Usage (use code 2*)	Most Usage	sage % Snace heat
	Nowe						
							,
						,	
i.							
						,	
		7.000.0					
	44				1000		
			las as (Stove of Air)		2. DOSAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp. 3. Air Heating for S.	T. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating	
	4. Hand fired 5. Other stoker (specify)	9. Atomizing Oil (Mech 10. Rotary Cup Oil	(Wechanical)		4. Air Heatin 5. Others (so	g for Process Usage	

		1	1	l	l	1	١.	ŧ	ļ	l .		1					
	17 St		Percent Ash														
ONLY)			Percent Suffur		***												
(FOR AGENCY USE ONLY)		Fuel Data	Heat Content BTU/Gal, etc. (Specify Units)														
		Fu	Amount Per Year (Specify Units)											-	1	1	11
FORM B PAGE 2			Maximum Amount Per Hour (Specify Units)										Supplier				
FORM B			Fuel Type														
			Exit Gas Temperature Degree F.										Ape				
		Stack Parameters	Exit Gas Velocity Feet/Sec.						60				Fuel Type				
		Stack P	Inside Exit Dia. Feet										IERS:				11
			Stack Height Feet										FUEL SUPPLIERS:				
			Reference Number								И	S					

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number 11

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

				Product Output* Quantity Per Hour Per Year	6,606							
				Product Quantity Per Hour	8.0							
	á			Number of Emission Points To Air								
	2	Date		Feed Input tity Quantity our Per Year	9000							
				Guantity Per Hour	000							
Address		Information for Calendar Year	19 702	Rated Process Capacity Tons/Hour	1.3							
		Information fo	19	9 Ee	Ve Unit							
Company Name	Company Name		Hours / Days / Year	Process or Unit Operation Name	CRUDE TURRS KEFINING	5						
			24 HG	Reference Number			3					

*Specify Units of Measure Used

FORM C PAGE 2

(FOR AGENCY USE ONLY)

I		(ı	1					ı	ľ
	Efficiency	Actual									
+	Collection Efficiency	Design									
Air Pollution Control Equipment	**	(use Table 1)	#				:8	-4			
Air Polluti	Manufacturer and Model Number		WATER SPURGER ON VENT ZISTEM								
	Exit Gas	OF.									
Stack Data	Exit Gas	Feet/Sec.									
	Inside	Feet	0.17								
	Loicht	Feet	50								
	Number		/								

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

	FORM C PAGE 3	(FOR AGENCY USE ONLY)
•		
11	12	

11		12			
Reference Number	Particulates	Process Emissions* Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
	Nove Detected	UNKNOWN			
	- 				
			-		
		Е.			
				· · · · · · · · · · · · · · · · · · ·	
					y.

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Belng Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

(Agency Use Only)		ш	1* Method of Disposal							Type Waste			*1 Disposal Method Codes	5. Burned in Boiler or Furnance	6. Other (Specify)	rest of Form)
Information for Year	Date	۵	Amount Per Year (Tons)				Rotary Flue Fed				Á				2. Landfill (No Burning)	 Incinerator (Complete rest of Form) Conical Burner (TeePee)
ne		v	Maximum Amount Per Day (Pounds)			y the Following:	single chamber multiple Chamber Modified (describe)			Pounds / Hour	rounds / Day Tons / Year	Hours / Day	Days / Year			
Company Name	Address	B Description of Waste Materials	Type (Describe)	None		If Waste Disposal is by Incineration, Specify the Following:	1. Type of Incinerator:		Model Number	Rated Capacity	3. Cuanuty burned:	4. Operating Schedule				

FORM D PAGE 2

(AGENCY USE ONLY	<u> </u>

			10 a 2		
5.	Auxiliary	Fuel:	Туре		
			Amount/Year (Specify Units)	
			Heat Content		
			Percent Sulfur	*	E
			Percent Ash		
			Supplier's Name		
6.	Pollution	Control Equipment:	Manufacturer		
		· ·	Model Number		
			% Efficiency		
		1.0	Туре		
			GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:		Height		_ Feet
			Inside Exit Diameter		Feet
			Exit Gas Velocity		Feet/Sec.
			Exit Gas Volume		SCFM
			Exit Gas Temp.	G.	°F.
8.	Estimated	Emissions From Refu	se Incineration:		
		Name:		Basis of Estimates:	
		Particulates _	Tons/Year		
		Sulfur Oxides _	ıı		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride

14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group -- DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles
41 spray chamber — with baffles
42 wet cyclones — rotoclone
43 wet dynamic precipitator
44 venturi scrubber
45 spray tower (not absorption —

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission



To Operate Air Emissions Equipment

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

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

	promulgated the		and the regulations or standards
Issued this_	6th	_ day ofFebruary	, 19 <u>74</u> .
0.0			JTION CONTROL COMMISSION Jew Wood J. Broutive Director
		_ day ofFebruary	, 19 77 .
Facility No.	0800-0000	01-031	
MPC FORM	ADDITIONAL	CONDITION IS ATTAC	HED 690



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-031

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

2%.

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	 ····	
Facility No.:	 	
AOCB:		

El Oxidenier Das So PMHP

5 1 30 1 30

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.

 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Source			Da	ate Submitted
2. Mailing Address		County	(U	Location TM or LAT-Long)
3. City	State	Zip	Code	Telephone
	N			
4. Name of Person	Completing Form		Tit	le
Tit	le		Telep	phone
6. Major Activity				
SIC number		Office	<u></u> ₩a	arehouse
Retail or Whol	esale Store	Hotel or Mo	tel 📙 Re	esidential or Ap
School or Chur	ch 📋	Hospital or	Lab 🗍 Ot	ther (Attach Explanatio
7. Signature of Ow	ner or Authorize	d Company Of	ficial	Date

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- Rated Capacity in Millions of BTU per hour.

information may be obtained.)

- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM (FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	:QUIPMENT			Page 1
	Company Name		Address			for Agency use Only	Only
Ope	Operating Schedule	Information fc	Information for Calender Year	Date	ii		
	Hours / Day Days / Week Weeks / Year	19	ī				
2	8		4	2	9		7
Reference	Manufacturer and Mobel Number	mber	Rated Capacity 10 ⁶ BTU/hr	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	Jsage % Space heat
	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	e of Air)		2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp 3. Air Heating for S 4. Air Heating for S 5. Others (specify)	* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

		Percent Ash	(9	٠		0		28						
ONLY)		Percent Sulfur		24.				*								
(FOR AGENCY USE ONLY)	Fuel Data	Heat Content BTU/Gal, etc. (Specify Units)														
	Fe	Amount Per Year (Specify Units)					(4)				Ĩ	Ĭ	ı	ĺ	11	
FORM B PAGE 2		Maximum Amount Per Hour (Specify Units)								Supplier						
FORM		Fuel Type					5			ļ						
		Exit Gas Temperature Degree F.								ed.						
	Stack Parameters	Exit Gas Velocity Feet/Sec.								Fuel Type						
	Stack P	Inside Exit Dia. Feet								JERS:						
		Stack Height Feet								FUEL SUPPLIERS:						
		Reference Number	,						*							

(FOR AGENCY USE ONLY) FORM B PAGE 3 12

	Basis	Estimate				•				
	rear)	Other (specify)			2 =					
	Emissions (Tons∕∕ear)	So2		200						
5	ù	Particulate								
	ancv	Actual								
	Ffficiancy	Design							P 100	
	pment	1ype" (Use Table 1)								
12	Air Pollution Control Equipment	Manufacturer and Model Number								
11	Reference	Number								

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

	Date	
Address	Information for Calendar Year	19 72
Company Name	Operating Schedule	24 Hours / Days 365 Days / Year

		Rated Process	Feed	Feed Input	Number of	Product	Product Output*
Reference Number	Process or Unit Operation Name	Capacity Tons/Hour	Quantity Per Hour	Quantity Per Year	Emission Points To Air	Quantity Per Hour	Quantity Per Year
1	PMHP OXIGHTION ULANT	0.52	0.19	1.662		6.19	1,662

Reference Number

Actual Collection Efficiency (FOR AGENCY USE ONLY) Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number Eng FORM C PAGE 2 OXIDIZER Exit Gas Temperature 0 F Exit Gas Velocity Feet/Sec. Stack Data Inside Unit Dia. Feet

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C	PAGE 3	 (FOR AGENCY USE ONLY)	

11	12	2			
		Process Emissions*			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
	1/0	1.0		MEASURED IN AREA	
	NONE DETECTED	N.D.		HREA	
	 				
			-		
			+		
			 		
			-		
			-		

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	шe	_	Information for Year	(A	(Agency Use Only)
	e de la companya de l				
Address			Date		
			- 8		9
B Description of Waste Materials	υ	-	Q		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	unt Is)	Amount Per Year (Tons)		1* Method of Disposal
Hone			8.		
			2		
If Waste Disposal is by Incineration, Specify the Following:	fy the Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe) Other (describe)		Rotary Flue Fed		
		8			
2. Manufacturer's Name:	U T			29	
Model Number					
Kated Capacity 3. Quantity Burned:	Pounds	Pounds / Hour Pounds / Day	Ty	Type Waste	
4. Onerating Schedule	Tons / Year	Year / Dav			y:
	Days / Year	Year	*	*1 Disposal Method Codes	Codes
					5. Burned in Boiler or Furnance
			2. Landfill (No Burning) 3. Incinerator (Complete rest of Form)	st of Form)	6. Other (Specify)
			4. Conical Burner (TeePee)		

FORM D PAGE 2

<u> </u>	
(AGENCY USE ONLY)	
(AGENOT OUR CHETT	

_			-	
5.	Auxiliary	Fuel:	Type	****
			Amount/Year (Specify Units)	·
			Heat Content	
			Percent Sulfur	
			Percent Ash	
			Supplier's Name	
6.	Pollution	Control Equipment:	Manufacturer	
			Model Number	
		,	% Efficiency	
			Туре	
			GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:		Height	_ Feet
			Inside Exit Diameter	Feet
			Exit Gas Velocity	Feet/Sec.
			Exit Gas Volume	SCFM
			Exit Gas Temp.	°F.
8.	Estimated	Emissions From Refu	se Incineration:	
		Name:	Basis of Estimates:	
	14	Particulates _	Tons/Year	
		Sulfur Oxides	11	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones 32 settling chamber 33 simple filters 34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption — scrubbers) 46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

WOR

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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

adopted and	l promuigate	d thereunder.		111	
Issued this_	6th	day of _	February	, 19 <u></u>	
,		AIR AN	ID WATER POLL	LION COMTROL	COMMISSION 7-
Expires	6th	day of	February		
Facility No.	0800-	00001-030			
MPC FORMADI	OITIONAL	CONDITION	IS ATTACHED		689

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-030

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AOCR:	

#30 P-Memberne

g.

200

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

(FORM A GEN	ERAL INFOR	MATION C)
1. Owner of Source				Date Submitted
2. Mailing Address		Count	у	Location (UTM or LAT-Long)
		 		
3. City	State	Zi	p Code	Telephone
T.	8			
4. Name of Person C	ompleting Form		Ti	itle
5. Person to Contac	t on Air Pollut	ion Matter	'S	
		-		
Titl	e 		Te	lephone
				v
6. Major Activity				
SIC number		Office		Warehouse
Retail or Whole	sale Store	Hotel or	Motel 📙	Residential or Apts
School or Churc	h <u> </u>	Hospital	or Lab 🗍	Other (Attach Explanation)
7. Signature of Own	er or Authorize	ed Company	Official	Date
Type or Print Name o	of Signer	3	T	itle

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FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.

information may be obtained.)

- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM I	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT isposal)			Page 1
	Company Name	*	Address			for Agency use Only	hly
					18		
O	Operating Schedule	Information fo	Information for Calender Year	Date	1.22		
	Hours / Day Days / Week Weeks / Year	19	42				e e
2	3	198	4	ß	9		7
Reference	Manufacturer and Mobel Number	ımber	Rated Capacity 10 ⁶ BTU/hr s	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
	None						
	1* BURNER CODES				2* USAGE CODES	ODES	
	 Cyclone furnace Pulverized coal Spreader Stoker Hand fired Other stoker (specify) 	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil	re of Air) hanical)		1. Boiler, Steam 2. Boiler, Other 3. Air Heating fo 4. Air Heating fo 5. Others (specified)	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	
		11. Others (specify)					

Exit Gas Temperature Fuel Type Per Hour Specify Units) (Specify Units) (Specify Units) (Specify Units) Sulfur Ash	Fuel Data Maximum Amount Amount Heat Content Percent Specify Units) (Specify Units) (Specify Units) Sulfur Ash	Fuel Type Maximum Amount Amount Per Year (Specify Units) (Specify Units)	Exit Gas Fuel Type Per Hour Specify Units) Supplier Fuel Type Fue	Exit Gas Fuel Type Maximum Amount Amount Per Year STUGAL, etc. Percent Per Per Year (Specify Units) Sulfur Ash Ash Supplier	Exit Gas Foul Type Maximum Amount Amount Per Year Content Percent Annual (Specify Units) (Specify Units) Sulfur Annual Capering C	Exit Gas Prud Type Maximum Amount Amount Caperty Unital Specify Un	Exit Gas Foul Type Maximum Amount Amount Amount Percent Specify United Specify Un	Ecit Cas Ecit Cas Find Type Macrimum Amount Amount Amount Specify Unita) (Specify Un	Exit Gas Fuel Types Waximum Amount Amount Amount Specify United (Specify United) (Specify United) Sulfur Su					FORN	FORM B PAGE 2		(FOR AGENCY USE ONLY)	ie onLY)	
Fuel Type Maximum Amount Amount Heat Content Per Hour Per Hour (Specify Units) (Specify Units) (Specify Units) Sulfur	Fuel Type Maximum Amount Per Year BTU/Gal, etc. Percent Per Hour Specify Units Specify Units Specify Units Sulfur Ash	Fuel Type Maximum Amount Amount Per Year Suffur Ash (Specify Units) (Specify Units) (Specify Units) Sulfur Ash	Exit Gas Fuel Type Maximum Amount Amount Per Hour Specify Units) Sulfur Per Hour (Specify Units) Sulfur Sul	Exit Gas Fuel Type Per Hour Specify Units) Suffur Asia Suffur S	Exit Gas Fuel Type (Specify Units) (S	Exit Gas Foul Type Per Hour Specify Units) Suffur Ann Manuar Supplier Supplier	Exit Gas Foul Type Maximum Amount Specify Unital) Suffer Annual	Ecit Gas Per Hour Specific Cas Specify Unital Specify Unit	Ecit Gas Pages F. Food Type (Specify Units) Specify Units) Specify Units) Supplier Supplier	Stack Parameters	Paramete	SIS				Fu	sel Data		
			Supplier	Supplier	Supplier Supplier	Supplier	Supplier	Supplier	Supplier	Stack Inside Exit Gas Height Exit Dia. Velocity Feet Feet		S ≥ S	Exit Gas Temperature Degree F.	Fuel Type	Maximum Amount Par Hour (Specify Units)	Amount Per Year (Specify Units)	Heat Content BTU/Gal, etc, (Specify Units)	Percent Sulfur	Percent Ash
			Supplier	Supplier	Supplier	Supplier	Supplier	Supplier	Supplier .										
			Supplier	Supplier	Supplier	Supplier	Sapplier	Supplier	Supplier Supplier			I			9.				
			Supplier	-															
			Supplier	Supplier	Supplier	Supplier	Supplier	Supplier	Supplier .										
			Supplier				r												
			AT.																
			ž.																
										FUEL SUPPLIERS: Fuel Type	Fuel Type	Š		ic .	Supplier				
Supplier	Supplier																		
Supplier Supplier	Supplier																		

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment. Manufacturer and Model Number Reference Number 1.1

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

PAGE 1				Number of Product Output* Emission Points Quantity Quantity Duantity Duantity Duantity Duantity Duantity	0.21							
				Nun								
ATIONS		Date		Feed Input Ny Quantity	8887			!				
OCESS OPER			g.	Feed Quantity Per Hour	0,21							
FORM C MANUFACTURING PROCESS OPERATIONS	Address	Information for Calendar Year 19 72 Capacity Tons/Hour										
		Information f	19	/ате	Hair							
	Company Name	Operating Schedule	Hours / Days 365 Days / Year	Process or Unit Operation Name	PARA - MENTHANE							
			24 Ho	Reference Number	1							

FORM C PAGE 2

(FOR AGENCY USE ONLY)

	ncy	Actual				•				
	Collection Efficiency	Design		H						
Air Pollution Control Equipment	Type*	(use Table 1)								
Air Pollutic	Manufacturer and Model Number		Nove							
Stack Data	Exit Gas Temperature	oF.								
	Exit Gas Valocity	Feet/Sec.								
	Inside	Feet	0.1							
	Height	Feet	35							
	Reference Number		/							

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)
	E)

11	12					
Reference Number	1 . 1	Process Emissions*	Other (Specify by c	s chemical	Basis for	(Agency Corments Only)
	Particulates	Sulfur Oxides			Estimation	(Albency Coments Only)
1	None Derected	N. D.	# 4D206E	n porec SEFM	MEASURED	
					**	
	1					
	+					
	-				1	
			-			
76 1			-			

		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
	-	· · · · · · · · · · · · · · · · · · ·	 			
	-					

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	ame	Information for Year		(Agency Use Only)
			-	
Address		Date		
B Description of Waste Materials	U	Q		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	ant Amount Per Year (Tons)	ar	1* Method of Disposal
None				
If Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modif Other	ify the Following: single chamber multiple Chamber Modified (describe)	Rotary Flue Fed		
2. Manufacturer's Name:				
Rated Capacity	Pounds	Pounds / Hour	Type Waste	
3. Quantity Burned:	Pounds / Da	Pounds / Day		
4. Operating Schedule	Hours / Day	/ Day		
	Days / Year	Year	*1 Disposal Method Codes	hod Codes
		1. Open Burning		5. Burned in Boiler or Furnance
		2. Landfill (No Burning) 3. Incinerator (Complete rest of Form)	ning) plete rest of Form)	6. Other (Specify)
		4. Conical Burner (TeePee)	TeePee)	

FORM D PAGE 2

(AGENCY	USE ON	LY)	

5.	Auxiliary Fuel:	Туре		
		Amount/Year (Specify Units)	
		Heat Content	·	
		Percent Sulfur	2	
		Percent Ash		
		Supplier's Name		
6.	Pollution Control Equipment:	Manufacturer		
		Model Number		
		% Efficiency		
		Туре		· · · · · · · · · · · · · · · · · · ·
		- 1	5.	
		GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	Height		_ Feet
		Inside Exit Diameter	=	Feet
	*	Exit Gas Velocity		Feet/Sec.
		Exit Gas Volume		SCFM
		Exit Gas Temp.		°F.
8.	Estimated Emissions From Refu	se Incineration:		
	Name:		Basis of Estimates:	
	Particulates	Tons/Year		
	Sulfur Oxides	11		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

04 Steam Injection han

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group - Other Specify

State of Mississippi Air and Water Pollution Control Commission

To Operate Air Emissions Equipment

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

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

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 neces-

Pollution C adopted and	vent pollution of control Act, (Miss d promulgated the 6th	sissippi La reunder. day of _	ws, 1966, ch. 2!	58) and the	regulation	ns or standards
				Executive Direct	Wood	7.
Expires	6th	day of	February	,	19 <u>77</u> .	
	0800-00001					
MPC FORM	ADDITIONAL	CONDIT	ION IS ATTA	CHED		688



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-029

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	· · · · ·	 	
Facility No.:			
AOCB:			

#29 p-Cymense 0

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters:
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

				Management of Parties (1)									
	FORM A GEN	ERAL INFO	RMATION C										
1. Owner of Source	į.			Date Submitted									
	,												
2. Mailing Address		Count	ty	Location (UTM or LAT-Long)									
	=												
3. City	State	Zi	ip Code	Telephone									
21													
4. Name of Person C	ompleting Form		Т	itle									
5. Person to Contact on Air Pollution Matters													
5. Person to Contact on Air Pollution Matters													
Title Telephone													
ū.													
6. Major Activity													
SIC number	Processing	Office		Warehouse									
Retail or Whole	sale Store 🔲	Hotel or	Motel 🔲	Residential or Apts									
School or Churc	h 📋	Hospital	or Lab ∏	Other (Attach Explanation)									
7. Signature of Own	er or Authorize	d Company	Official	Date									
4													
Type or Print Name o	f Signer		Т	itle 									
L													

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel types.)

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT isposal)			Page 1
	Company Name		Address			for Agency use Only	Only
				æ	j.		
Ö	Operating Schedule	Information f	Information for Calender Year	Date			
	Hours / Day Days / Week Weeks / Year	19_					
2	8		4	S	9		7
Reference Number	Manufacturer and Mobel Number	umber	Rated Capacity	Type of Burner Unit	Usage (use code 2*)	W Process	Same % Chare heat
	Mond						
	San						
	1* BURNER CODES				2* USAGE CODES	DES	
	1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Machanical)	e of Air) nanical)		1. Boiler, Steam 2. Boiler, Other 3. Air Heating fo	Boiler, Steam Boiler, Other (specify) Air Heating for Space Heating Air Heating for Process Usage	
	5. Other stoker (specify)	10. Rotary Cup Oil 11. Others (specify)			5. Others (spe	ecify)	

	, i	ļ	ı	ı	I	I	Į		×	i 1		ı					
		Percent Ash						+									
ONLY)		Percent Sulfur			*												
(FOR AGENCY USE ONLY)	Fuel Data	Heat Content BTU/Gal, etc. (Specify Units)															
	Fo	Amount Per Year (Specify Units)				T)			ε.					1			1
FORM B PAGE 2		Maximum Amount Per Hour (Specify Units)											Supplier				
FORM B		Fuel Type									,						
		Exit Gas Temperature Degree F.											ed/				
	Stack Parameters	Exit Gas Velocity Feet/Sec.											Fuel Type				
	Stack F	Inside Exit Dia. Feet											LIERS:				
		Stack Height Feet											FUEL SUPPLIERS:				
		Reference Number															

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) 802 Particulate Actual Efficiency Design Type*
(Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number 1.1

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used.

 Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

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FORM C MANUFACTURING PROCESS OPERATIONS

				Output* Quantity Per Year	2,079						
				Product Output* Ouantity Quant Per Hour Per Y	0.24						
				Number of Emission Points To Air	0						
		Date		Feed Input Quantity Per Hour Per Year	2,079						
				Feed Quantity Per Hour	0.24						
Address	Audies	Information for Calendar Year	19 72	Rated Process Capacity Tons/Hour	0.65						
		Information for	19	вше							
			365 Days / Year	Process or Unit Operation Name	eNe KNIT						
Second Second		ומו	Hours / Days 365	Proce	PARA - CymeNe						
			The Hor	Reference Number	/						

(FOR AGENCY USE ONLY) FORM C PAGE 2

ев	. (O .		5 -	i .		1	i	1
	Efficiency Actual								
	Collection Efficiency Design Ac								
Air Pollution Control Equipment	Type* (use Table 1)					ii		19	
Air Pollut	Manufacturer and Model Number	Newe.							
	Exit Gas Temperature o F								
Stack Data	Exit Gas Velocity Feet/Sec.								
	Inside Unit Dia.								
	Height								
	Reference Number	/							

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C	PAGE 3
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(FOR AGENCY USE ONLY)

12 11 Process Emissions Reference Number Others (Specify by chemical composition) Basis for Estimation (Agency Comments Only) **Particulates** Sulfur Oxides MEASURED AREA N.D.

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name		Inf	Information for Year		(Agency Use Only)
		**	5	_	
Address			Date		
3					
B Description of Waste Materials	ပ		a		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	s)	Amount Per Year (Tons)	14	1* Method of Disposal
None			10 2		
	37	Ш			
		95.			
			g P		
If Waste Disposal is by Incineration, Specify the Following:	he Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)		Rotary Flue Fed		
2. Manufacturer's Name:		=			
Model Number					
3. Quantity Burned:	Pounds / Hour Pounds / Day	/ Hour/ / Day	Тур	Type Waste	
4. Operating Schedule	Tons / Year Hours / Dav	<i>f</i> ear Dav			
	Days / Year	'ear	*	*1 Disposal Method Codes	nod Codes
			1. Open Burning 2. Landfill (No Burning)		5. Burned in Boiler or Furnance
			3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	t of Form)	

FORM D PAGE 2

(AGENCY USE ONLY)	
W.	

5.	Auxiliary Fuel:	Туре	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
		Amount/Year (Specify Units)	
		Heat Content	
		Percent Sulfur	
		Percent Ash	
		Supplier's Name	
6.	Pollution Control Equipment:	Manufacturer	
		Model Number	
		% Efficiency	
	•	Туре	
		GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:	Height	Feet
		Inside Exit Diameter	Feet
		Exit Gas Velocity	Feet/Sec.
		Exit Gas Volume	SCFM
		Exit Gas Temp.	o _F .
8.	Estimated Emissions From Ref	use Incineration:	
	Name:	Basis of Estim	ates:
	Particulates	Tons/Year	
	Sulfur Oxides	II	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride

15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT,

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Polyrad & Polyol 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.

adopted and pre	omangated thereunder.			
Issued this	6th day of	February	_, 19 <u>_74</u> .	
	AIR AI	ND WATER POLLUTION	CONTROL C	OMMISSION
* - *	E	Executive Dir	ector	0
Expires 61	th day of _	February	, 19 <u>77</u> .	
Facility No	0800-00001-028			687
MPC FORM AI	DDITIONAL CONDIT	TION IS ATTACHED		



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-028

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION P

This Space For Use By Approving Agency

Date Received:	 	
Facility No.:	 	
AOCB:		

108 Pargaras & Post Vine

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- Mailing Address.
 Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.

 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	OFORM A GEN	IERAL	INFORMATION		
1. Owner of Source					Date Submitted
2. Mailing Address			County		Location (UTM or LAT-Long)
3. City	State		Zip Code		Telephone
	×				
4. Name of Person Co	ompleting Form			Ti	tle
			*		
5. Person to Contac	t on Air Pollut	ion N	Matters		
					
Title	2	<u>'</u>		Tel	ephone
			<u> </u>		
6. Major Activity					
SIC number		Off:	ice		Warehouse
Retail or Whole	sale Store 🗀	Hote	el or Motel		Residential or Apts
School or Church	h <u></u>	Hosp	oital or Lab		Other (Attach Explanation)
7. Signature of Own	er or Authorize	ed Con	npany Offici	al	Date
Type or Print Name o	f Signer			Ti	itle
					,

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet,
 etc. Specify. Average amount Burned per Year. Gallons, Tons,
 Million cubic feet, etc. Specify. Heat Content of Fuel. BTU
 per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type
 and supplier's name at bottom of page in spaces provided so that
 information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

5 6 7 7 Agency use Only for Agency use Only and the state of the species of the s			FORM I	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	COUIPMENT (sposal)			Page 1
Operating Schedule Information for Calender Vear Date Hours / Day 19— 6 7 Hours / Day 19— 6 7 Meanther for All Member Read Capacity Type of Burner Unit 6 7 Meanther for All Member Read Capacity Type of Burner Unit 6 7 Meanther for All Member Read Capacity Read Capacity Read Capacity Read Capacity 1 - BURNER CODES 2 - Code on the formation of t		Company Name		Address			for Agency use O	nly
Hours / Day House Total ender Year Date	9				· æ*			
Hours / Day Weets / Freek 19	, O	serating Schedule	Information fo	or Calender Year	Date	(46)		
Name		Hours / Day Days / Week Weeks / Year	19_					16
Manufacture and Mobel Number Road Coperity Type of Burner Unit Uses Good 2*1 X- Process	2	3		4	ß	9	7	
1* BURNER CODES 1. Oyclone furnace 2. Pulwerized cosi 3. Sprader Stoker 4. Hand fitted 5. Other stoker (specify) 11. Others (specify)	Reference	Manufacturer and Mobel Nu	umber	Rated Capacity 10 ⁶ BTU/hr •	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Us % Process	sage % Space heat
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotavy Cup Oil (Mechanical) ify) 11. Others (specify)		None						
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 7. Formizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 7. Formizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 7. Forced draft gas 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)								4200
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) ify) 10. Rotary Cup Oil 11. Others (specify)			-					
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Machanical) ify) 10. Rotary Cup Oil 11. Others (specify)								
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Machanical) ify) 10. Rotary Cup Oil 11. Others (specify)		1* BURNER CODES				2* USAGE CO	DES	
10. Rotary Cup Oil 11. Others (specify)			6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stow 9. Atomizing Oil (Mech	e of Air) nanical)		1. Boiler, Ste 2. Boiler, Oth 3. Air Heatin 4. Air Heatin	am ier (specify) g for Space Heating g for Process Usage	
			10. Rotary Cup Oil 11. Others (specify)			5. Others (spe	acify)	

FORM B PAGE 2

(FOR AGENCY USE ONLY)

Percent Ash Percent Sulfur Heat Content BTU/Gal, etc. (Specify Units) Fuel Data Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) Supplier Fuel Type Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

FORM B PAGE 3

(FOR AGENCY USE ONLY)

	Basis of	Estimate			•	•		2		
		aar)	(xjjoeds)							
		Emissions (Tons/Year)	So ₂							
13			Particulate							
		ncy	Actual							
		Efficiency	Design							
	nent	Type*	(Use Table 1)						21	
	Air Pollution Control Equipment	Manage Continued Blanks Inches								
	Reference	Number								

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

MANUFACTURING PROCESS OPERATIONS	
FORM C N	

					Product Qutput *	Per Year	970		•				
PAGE 1					Product Quantity	Per Hour	0.22						
					Number of Emission Points	To Air	/						
LTIONS			Date		Feed Input	Per Year	970						
OCESS OPERA			_		Feed	Per Hour	0.22						
MANUFACTURING PROCESS OPERATIONS	Address	Addres		Information for Calendar Year	Rated Process Capacity	Tons/Hour	0.30						
FORM C MA			Information f	19	Name		AT R. R.D						
	Company Name		Operating Schedule	24 Hours / Days 365 Days / Year	Process or Unit Operation Name	V	POLYRADS & YOUNG HAIT						
			-	24 Hou	Reference	Number	/						

FORM C PAGE 2

(FOR AGENCY USE ONLY)

		. (,					,
	Collection Efficiency	Actual							
ant		Design							
Air Pollution Control Equipment	Tvpe*	(use Table 1)							
Air Pollu	Manufacturer and Model Number		None					7	
	Exit Gas Temperature	oF.							
Stack Data	Exit Gas Velocity	Feet/Sec.							
	Inside Unit Dia.	Feet	0.13						
	Height	Feet	0:1						
	Number		/						

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C	PAGE 3	(FOR AGENCY USE ONLY)

12 11 Process Emissions* Others (Specify by chemical composition) Reference Number Basis for Estimation (Agency Comments Only) Sulfur Oxides **Particulates** MEASURED IN AREA

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 3. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name		-	Information for Year	(Agency Use Only)	nly)
	9				
Address			Date		
					*
B Description of Waste Materials	O		Q	ш	
Type (Describe)	Maximum Amount Per Day (Pounds)	int s)	Amount Per Year (Tons)	Method of Disposal	1* Disposal
Nowe					
If Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modifi	he Following: single chamber multiple Chamber Modified (describe)		Rotary Flue Fed		
2. Manufacturer's Name: Model Number				=	
Rated Capacity 3. Quantity Burned:	Pounds / Hour Pounds / Dav	/ Hour	Туре	Type Waste	
4. Operating Schedule	Tons / Year Hours / Day	/ear Day			
	Days / Year	/ear	+	*1 Disposal Method Codes	
			1. Open Burning 2. Landfill (No Burning)		5. Burned in Boiler or Furnance 6. Other (Specify)
			3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	of Form)	

FORM D PAGE 2

)			
 (AGEN	ICY USE	ONLY)	

5.	Auxiliary Fuel:	Туре	
		Amount/Year (Specify Units)	
		Heat Content	
		Percent Sulfur	
		Percent Ash	
		Supplier's Name	3,000,000
6.	Pollution Control Equipment:	Manufacturer	
		Model Number	
		% Efficiency	
		Туре	
		GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:	Height	Feet
		Inside Exit Diameter	Feet
		Exit Gas Velocity	Feet/Sec.
		Exit Gas Volume	SCFM
		Exit Gas Temp.	_ °F.
8.	Estimated Emissions From Ref	use Incineration:	
	Name:	Basis of Estimates:	
	Particulates	Tons/Year	
	Sulfur Oxides	ti	8

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

04 Steam injection har

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones 32 settling chamber

33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That
Hercules, Incorporated
Hattiesburg Plant
West 7th Street
Hattiesburg Mississipp

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Resin 1977 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.

adopted and	promulgate	d thereunder,		Walter and Salar	1. E
Issued this	6th	day of _	February	, 19	V 200
		AIR AN	D WATER POLL	JTION CONTROL	COMMISSION
			Ex	cutive Director	71.
Expires	6th	day of	February	, 19 <u>77</u>	. •
Facility No	0800-000	<u>01</u> -027			

MPC FORM

ADDITIONAL CONDITION IS ATTACHED

686



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-027

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





Mississippi Department of Environmental Quality Office of Pollution Control

I-sys 2000 Master Site Detail Report

Site Name: Hercules Inc

PHYSICAL ADDR	ESS	OTHER INFORM	MATION
LINE 1:	613 West 7th Street	MASTER ID:	002022
LINE 2:		COUNTY:	Forrest
LINE 3:		REGION	SRO
MUNICIPALITY:	Hattiesburg	SIC 1:	2822
STATE CODE:	MS	AIR TYPE:	TITLE V
ZIP CODE:	39401-	HW TYPE:	LARGE QUANTITY
MAILING ADDRE	s <u>s</u>	SOLID TYPE:	INDUSTRIAL
LINE 1:	613 West 7th Street	WATER TYPE:	INDUSTRIAL
LINE 2:		BRANCH:	Chemical
LINE 3:		ECED CONTAC	Т:
MUNICIPALITY:	Hattiesburg	Yassin, Mohamn	nad
STATE CODE:	MS	BASIN:	
ZIP CODE:	39401-		
AIR PROGRAMS	✓ SIP	NESHAPS 📝 N	IACT



Mississippi Department of Environmental Quality Office of Pollution Control

Pemits				
PROGRAM	PERMIT TYPE	PERMIT#	MDEQ PERMIT CONTACT	ACTIVE
HAZ. WASTE	EPA ID	MSD008182081		NO
AIR	TITLE V	080000001	Ketchum, Brian	YES
AIR	SOP	080000001	Ketchum, Brian	NO
WATER	NPDES - MAJOR	MS0001830	Cook, Charles	NC
WATER	NPDES - MAJOR	MS0001830	Cook, Charles	NC
WATER	NPDES - MAJOR	MS0001830	Beasley, Jerry	YES
WATER	PRE-TREATMENT	MSP091286	Tomkins, Tracy	YES
GENERAL	SARA TITLE III	MSR110153	Lavallee, Louis	YES
AIR	TITLE V	0800-00001	Glenn, Montie	NC
Complianc	e Actions	1		
MEDIA	ACTIVITY TYPE	SCHEDULED	COMPLETED INSPECTED B	
WATER	CEI - NA	3/17/99	3/17/99 Yassin, Mohamma	d
WATER	CMI - PRETREATMENT	11/1/99	Sharp, Loyd	
WATER	CMI - NPDES	4/1/00	Sharp, Loyd	
WATER	CMI - NPDES	11/1/99	Sharp, Loyd	
WATER	CEI - NA	9/30/00	Yassin, Mohamma	d
HAZ WASTE	Compliance Evaluation Inspection	9/30/00	Yassin, Mohamma	d
AIR	State Compliance Inspection	9/30/00	Yassin, Mohamma	d
HAZ WASTE	Compliance Evaluation Inspection	6/30/99	6/30/99 Yassin, Mohamma	d
AIR	State Compliance Inspection	6/29/99	6/29/99 Yassin, Mohamma	d
WATER	CEI - NA	6/30/99	6/30/99 Yassin, Mohamma	d

Ipraeat

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

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HERMIT A. JONES

RAY TRIBBLE



Glen Wood, Jr.
EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

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CHARLES W. ELSE YAZOO CITY

ASSOCIATE MEMBERS

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A & I BOARD PAUL BURT

GEOLOGICAL SURVEY

W. H. MOORE

00/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

CCINTACT

CHARLES JORDAN

COUNTY NO. 0

0800

SUBJECT

OPERATING PERMIT EXPIRES

SOURCE MO.

035

DATE

02/06/77

GENTLEMEN

A REVIEW OF DUK FILES INDICATES THAT YOUR PERMIT TO OPERATE EXPIRES SOON.

PLEASE NOTE THAT COMMISSION REGULATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR RENEWAL DE YOUR PERMIT TO OPERATE AT LEAST NIMETY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN PROJECT TO THE ADDRESS SHOWN ABOVE.

IF YOU HAVE ANY QUESTIONS, PLEASE ON NOT HESITATE TO CON-

VERY TRULY YOURS.

MIKE KENNEDY

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09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTIESHURG MS 39401

CONTACT

CHARLES JORDAN

COUNTY NO.

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W. H. MOORE

09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

CHNTACT

CHARLES JORDAN

COUNTY NO.

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HERCULES INC OF HATT WEST TIH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

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02/06/77

GENTLEMEN

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DIV. DE ATR BOLLUTION CONTROL

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STATE OF MISSISSIPPI

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09/24/76

HERCULES INC OF HOTT WEST 7TH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

COUNTY NO.

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09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTIESHURG MS 39401

CONTACT

CHARLES JORDAN

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HERCULES INC OF HATT HEST 7TH STREET HATTIESBURG MS 39401

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09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401

COMTACT

CHARLES JORDAN

COUNTY NO.

SUBJECT

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09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

COUNTY NO. 0800

SUBJECT

OPERATING PERMIT EXPIRES

SOURCE NO. 00001 POINT NO. 027

DATE

02/06/77

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DIV. PE AIR POLLHTION CONTROL

STATE OF MISSISSIPPI

COMMISSIONERS

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OIL & GAS BOARD **QUINCY R. HODGES BOARD OF HEALTH** JOE D. BROWN MARINE CONSERVATION COMMISSION W. J. DEMORAN

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HERMIT A. JONES CANTON

RAY TRIBBLE MONEY



Glen Wood, Jr. EXECUTIVE DIRECTOR

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GEOLOGICAL SURVEY W. H. MOORE

09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

CONTACT

CHARLES JORDAN

COUNTY MID.

0800

SUBJECT

GENTLEMEN

OPERATING PERMIT EXPIRES

SOURCE NO.

00001 0.26

DATE

02/06/77

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

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VERY TRILLY YOURS.

MIKE KENNEDY

DIV. OF AIR POLILITION CONTROL

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

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GEOLOGICAL SURVEY

09/24/76

HERCULES INC OF HATT WEST 7TH SIREET HATTLESBURG MS 39401

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CHARLES JORDAN

COUNTY NO.

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DIV. HE AIR POLLUTION CONTROL



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

ATTN: Judith A. Linskey

Re your 7/30/76 letter for certification of construction, the modifications to an existing plant under the application for approval to construct submitted July 9, 1975 were abandoned due to disapproval of the appropriation request by company management.

If you have any questions, please call me.

Yours very truly,

HERCULES INCORPORATED

AIR & WATER FULLUTION STATE OF MISSISSIEN

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Sorrest

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

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ASSOCIATE MEMBERS

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A & I BOARD

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07/30/76

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

COUNTY NO.

0800

SUBJECT

CERTIFICATION OF CONSTRUCTION

SOURCE NO.

00001

DATE

09/29/76

GENTLEMEN

A REVIEW OF DUR FILES INDICATES THAT YOUR APPROVAL TO CONSTRUCT EXPIRES SOON.

PLEASE NOTE THAT UNDER COMMISSION REGULATIONS FINAL CONSTRUCTION MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER. REGISTERED IN THE STATE OF MISSISSIPPI. THAT CONSTRUCTION WAS PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS ON FILE WITH THIS AGENCY. THIS CERTIFICATION MUST BE SUBMITTED PRIOR TO EXPIRATION OF YOUR APPROVAL TO CONSTRUCT.

IN ORDER FOR THE OPERATION OF YOUR AIR EMISSIONS FOULPMENT TO BE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION. A PERFORMANCE EVALUATION PERMIT MUST BE OBTAINED PRIOR TO ACTUAL STARTUP OF THE AIR EMISSIONS FOULPMENT. THIS PERMIT MAY BE OBTAINED BY WRITTEN REQUEST TO THE COMMISSION. BUT CANNOT BE ISSUED UNTIL CERTIFICATION OF CONSTRUCTION IS RECEIVED.

IF YOU HAVE ANY QUESTIONS. PLEASE CONTACT US.

VERY TRULY YOURS.

DIV. OF AIR POLLUTION CONTROL



HERCULES INCORPORATED Kymene Pet

HATTIESBURG, MISSISSIPPI 39401

November 1, 1976

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

Attention: Judy Linskey

Dear Ms. Linskey:

Re your August 20, 1976 letter for permit application received, the modifications to an existing plant, under the application for approval to construct additional pollution control equipment for Hercon 38 pre polymer originally submitted July 13, 1976, with additional data submitted on August 10, 1976, were abandoned due to disapproval of the appropriation request by company management.

If you have any questions please call me.

Very truly yours,

Charles S. Jordan

Senior Chemical Engineer

CSJ:1h



air a water pollution Control Commission State of Mississippi

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

OIL & GAS BOARD
QUINCY R. HODGES
BOARD OF HEALTH
JOE D. BROWN
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W. J. DEMORAN

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RAY TRIBBLE MONEY



Glen Wood, Jr. EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

SIXTH FLOOR ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205

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CHARLES W. ELSE YAZOO CITY

ASSOCIATE MEMBERS

STATE PARK SYSTEM DR. JOHN M. KING

A & I BOARD PAUL BURT GEOLOGICAL SURVEY W. H. MOORE

00/76/75

HERCULES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

CONTACT

CHARLES JURDAN

CHINTY NO.

0800

SUBJECT

OPERATING PERMIT EXPIRES

SOURCE MO. (

00001

DATE

02/06/77

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT YOUR PERMIT TO OPERATE EXPIRES SOON.

PLEASE NOTE THAT COMMISSION REGULATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR RENEWAL OF YOUR PERMIT TO OPERATE AT LEAST NIMETY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REQUEST TO THE ADDRESS SHOWN ABOVE.

IF YOU HAVE ANY QUESTIONS. PLEASE DO NOT HESITATE TO COM-TACT US.

VERY TRILLY YOURS.

MIKE KENNEDY DIV. OF AIR POLLUTION CONTROL Johnest.

Air & Water Pollution Control Commission

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

OIL & GAS BOARD QUINCY R. HODGES BOARD OF HEALTH JOE D. BROWN MARINE CONSERVATION COMMISSION W. J. DEMORAN

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STATE OF MISSISSIPPI



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A & I BOARD PAUL BURT

GEOLOGICAL SURVEY

08/20/75

HERCULES INC OF HATT WEST 7TH STREET HATTLESHURE MS 39401

CHNITACT

CHARLES JURDAN

CHENTY NO.

0800

SHRUFCT

PERMIT APPLICATION RECI-VED

SOURCE NO.

00001

MATE

11/16/76

GENTLEMEN

WE HAVE RECEIVED YOUR APPLICATION CONCERNING AN AIR POLITION EMISSION SOURCE. OUR STAFF IS IN THE PROCESS OF REVIEWING YOUR APPLICATION AND YOU WILL HEAR FROM US WITHIN MINETY DAYS.

IF YOU SHOULD HAVE ANY QUESTIONS CONCERNING THE STATUS OF YOUR APPLICATION PLEASE CONTACT THIS DEFICE.

VERY TRULY YOURS.

DIP LINSKEY OIV. OF AIR PULLUTTON CONTROL



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

August 10, 1976

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

Attn: Jerry Stubberfield



APPLICATION FOR PERMIT APPROVAL TO CONSTRUCT

Please find two attached copies of an application for permit approval to construct additional pollution control equipment on our Kymene Reactor covered under our existing permit to operate 0800-00001-024.

In brief, the manufacture of a new product (Hercon 38 pre polymer) results in the evolution of anhydrous ammonia. We propose to control this vent with an Ametek ammonia scrubber, as shown in the ammonia recovery system design flowsheet. The Ametek NH3 recovery system will be incorporated into the existing process as shown in the attached Kymene process flowsheet. There are no buildings outside our property that are within 150 ft. of the equipment involved in this application. The recovered aqueous ammonia will be used internally in another plant process or sold and not discharged to our wastewater treatment facilities.

If you have any questions, please contact me.

Very truly yours,

HERCULES INCORPORATED

Charles S. Jordan

Charles &

Senior Chemical Engineer

CSJ:p

Attachment

STATE OF MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION

AIR DIVISION

P.O. Box 827

JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT

THIS SPACE FOR OFFICE USE ONLY.

APPLICATION FOR:

Existing Facility
Renewal of Permit to Operate
Approval to Construct

GENERAL INSTRUCTIONS FOR ALL APPLICANTS:

- 1. The majority of this form must be completed by all applicants; specific instructions regarding type of permit applied for are given where needed.
- 2. For applications on Permit to Operate renewals, separate forms must be completed for each defined process, emission point, etc., previously holding a distinct and separate Permit to Operate.

INSTRUCTIONS

NOTE: ALL THIS INFORMATION MUST BE PROVIDED.

-3

- 1. Name of Facility give the name of the plant, mill, factory or business for which this application is made.
- 2. Location of Facility give street, road or highway, address and UTM or Lat-Long. of facility.
- 4. Name of Owner give name of person(s) or corporation which has day-to-day responsibility for ownership of facility.
- 6. In-plant person to be contacted on pollution matters- give the name of an individual who is usually at the facility who is responsible for knowing about pollution matters.
- 7-8. Corporate Address to be filled in for Mississippi facilities with main offices at locations other than that of facility listed in Nos. 1,2, & 3. If none, so indicate.
- 10. Major Activity define type of operation and products, show Standard Industrial Classification Number.
- 11. Operating Schedule must be provided as stated. If additional description of sporadic operation is needed, attach a sheet of explanation.

FOR ALL APPLICANTS:

This application is made under and in full accord with the provisions of Chapter 258, Mississippi Laws of 1966.

1. Name of Facility -	factory, mill, plant	, etc	Telephone						
Hattiesburg Plant	of Hercules Inc.		583-6161						
2. Location of Facili	ty To	wn	County						
	Hatt	iesburg	Forrest						
5. Mailing address of	Facility	City	Zip						
P. O. Box 1937		Hattiesburg	39401						
4. Name of Owner			Telephone						
Hercules Incorporat	ed		583-6161						
5. Mailing address of	Owner	City	Zip						
P. O. Box 1937		Hattiesburg	39401						
6. In-plant person to	be contacted on poll	ution matters	Title						
Charles Jordan									
7. Does facility have	a corporate or main	office elsewhere?	x Yes No						
8. If yes, complete c	orporate name and mai	ling address City	State Zip						
HERCULES INCORPORAT	ED 910 Market St., Wi	lmington, Delaware	19899						
9. Correspondence to	be sent to 1 4 6 8 ab (circle on								
10. Major activity of	facility: Manufactu	ring & Processing							
Type of operation	and products: Chemica	ls							
S.I.C. Number: 28	61 (Major) 79 & 2822 (Minor)								
11. Operating Schedule									
Normal	Hours per day Day's per week Weeks per yea								
	24 7 52								
Seasonal or peak operation	Hours per day	Days per week	Weeks per year						
period	24	7	52						

FOR EXISTING FACILITIES AND RENEWAL OF PERMIT TO OPERATE ONLY:

Facility Permit Status (permits regarding air emissions only) What permits are presently held by facility: (list) PROCESS OR EQUIPMENT TYPE PERMIT EXPIRATION DATE FACILITY NO. PERMITTED 0800-0001 Operate 2/6/77 -024 Kymene Plant FOR EXISING FACILITY PERMIT RENEWAL ONLY: Please answer all the following: 1. Has the facility been modified in any way (including fuel and/or raw material changes) during period covered by the Operating Yes No 2. If No. 1 is yes, was modification made in accordance with permit requirements specified in Regulation APC-S-2? Yes ____No ___If no, explain ____ Have the emission rates from the facility been tested within the last 6 months? ____Yes ___No If yes, please attach a copy of the stack test report(s). NOTE: If no stack emissions test has been made, you may be required to have one performed and submitted in order to prove compliance with emission regulations. Is this facility still operating at the location given in previous applications? Yes No

5. If No. 4 is no, complete the follow	ing:
New location:	
New Mailing Address:	
Was a request for approval to a location?YesNo	move made for this new
Was approval granted?Ye	sNo
FOR ALL APPLICANTS, WHETHER NEW CONSTRUC	CTION, EXISTING FACILITY, OR RENEWAL
Control Equipment covered under this apparent indicate number of units	·
PARTICULATE EMISSIONS CONTROL EQUIPMENT	
1. Cyclone(s)	5. Venturi Scrubber
2. Water Scrubber x	6. Cyclonic Baghouse
3. Baghouse	7. Cyclonic Scrubber
4. Electrostatic Precipitator	8. Other
GASEOUS EMISSIONS CONTROL EQUIPMENT	
1. Water Scrubber	3. Other
2. Activated Carbon Bed	
WASTE DISPOSAL SYSTEMS	
1. Solid Waste Incinerator	4. Gaseous Waste Flare
2. Liquid Waste Incinerator	5. Liquid Waste Flare
3. Wood or other waste fuel recovery boiler	6. Other
Pneumatic Conveying System	
Other (please describe)	
	51

FOR ALL APPLICANTS

FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

This form has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment. Reasons should be given explaining any data not filled in.

Page 1

- 1. Fill in company name and address, plus year for which data is given (if existing facility) at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc., and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate date for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- Heat Usage. Percent of heat used for process and percent for space heating.

Page 2

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Gemperature in degrees F.
- 10. Fuel Data
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc.
 Specify. Average amount burned per year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound cubic foot, etc., Specify.
 Average Percent Sulfur Content.

Average Percent Ash Content. (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate. Type.

 Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known. Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give basis of estimates of pollutants emitted (Material Balance, Stack Tests, Emission Factors, etc.)

 (If unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Page 1	for Agency use Only				7	8									2* USAGE CODES	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)
JIPMENT Ssal)			Date		5	Type of Burner Unit Use co									2* U	는 ci ci ci ci
FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	Address		Information for Calender Year		4	Rated Capacity Ty 10 ⁶ BTU/hr b										of Air} ianical}
			Information	19		lc1 Number									6 Multiple mort and	Or monthly both gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)
	FACILITY NAME:	Kymene Plant	FACII, ITY NUMBER	0 / 0/ 0/ 1/ 0 /2 /4	3	Manufacturer and Model Number	None							1* DIDNED COLL	1 Cyclone firmans	2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)
	1 FAC	, K	FAC	0/ 0/ 80	2	Reference										

FUEL BURNING EQUIPMENT

PAGE 2 (FOR AGENCY USE ONLY)

				Reference Number	
FUEL SUPPLIERS:				Stack Height Feet	
LIERS:				Inside Exit Dia. Feet	Stack
Fuel Type				Exit Gas Velocity Feet/Sec.	Stack Parameters
ýpe				Exit Gas Temperature Degree F.	
				Fuel Type	
Supplier				Maximum Amount Per Hour (Specify Units)	
				Amount Per Year (Specify Units)	Į.
				Heat Content BTU/Gal, etc. (Specify Units)	ial 7.42
				Percent Sulfur	
				Percent Ash	

PAGE 3

(FOR AGENCY USE ONLY)

FUEL BURNING EQUIPMENT

				4		_		4		
	Bacie	of	,							
		ear)	Other (specify)							
		Emissions (Tons/Year)	So2							
		Εm	Particulate							
		ncy	Actual							
		Efficiency	Design							
	ment	Type*	(Use Table 1)		•					
12	Air Pollution Control Equipment	Manufacturer and Model Number		4						
11		Number			- 4					

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FOR ALL APPLICANTS

MANUFACTURING PROCESS OPERATIONS

Page 1

- 1. Company Name and Address, plus year for which information is given (if existing facility) at top of page. Use data for must recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rates Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed Input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emissions Points to Air. Number of stacks, vents, etc., which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above groung.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used.

 Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, ect.)

						•	TAGE	
	Company Name		Address			FOR AGENCY USE	Ή	
Не	Hercules Incorporated	P. O. Box	Box 1937, Hattiesburg, Miss.	sburg, Miss	•			
FACIL	FACILITY NUMBER	Information for Calendar Year	Calendar Year		Date			
08 / 0/0	08 / 0/0 0 /0 / 0/ 0/1 0/2 /4	19 <u>77</u> _	7	7/1	7/1/76			
Reference	Process or Unit Operation Name	710	Rated Process Capacity	Feed I	Duantity Ouantity	Number of Emission Points	Product Output*	Output •
L	Kymene Plant		2.03	4 48 M lbs	1.19 MM 1bs.	_	4.05 M lbs	1 07 MM 1 hs
	(Hercon 38 Pre-polymer)							
٠								

		1		1	1	6	ı		,	(•	T.	y.	
۲۸)				Collection Efficiency	Actual									
(FOR AGENCY USE ONLY)			ent		Design	866								
(FOR			Air Pollution Control Equipment	Type*	(use Table 1)	46								
PAGE 2	MANUFACTURING PROCESS OPERATIONS		Air Poll	Manufacturer and Model Number		Amtex 12" Type 7025								
	MAI			Exit Gas Temperature	J O	Ambient								
			Stack Data	Exit Gas Velocity	Feet/Sec.	0.85								
				Inside Unit Dia.	Feet	0.25								
				Height	Feet	40						2		
			Reference	Number		-								

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

	f
PAGE 3	(FOR AGENCY USE ONLY)
MANUFACTURING PROCESS OPERATIONS	
12	

11		12			
Determine		Process Emissions*			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
1			50% NH ₃ (wt.) 50% Air (wt.)	Design	
			8.6 lb/hr.		
			l.14 Ton/yr.	11	
					
				·	
-					
					

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FOR ALL APPLICANTS

REFUSE DISPOSAL AND INCINERATION

- A. Company Name & Address plus year for which information is given if for renewal of permit, at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- D. Method of Disposal. Use codes at bottom of Form (1*).

Page 2

INCINERATION

- Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat Content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- Pollution Control Eqipment on Incinerator.
 Manufacturer of Control Device.
 Model Number of control Device.
 Percent efficiency of Control if known.
 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.
 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.
 Height in Feet above Ground.
 Inside Exit Diameter in Feet.
 Exit Gas Velocity in Feet per Second.
 Exit Gas Volume if Velocity not known.
 Exit Gas Temperature in Degrees F if known.

8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

REFUSE DISPOSAL AND INCINERATION

		Quantity Burned: Operating Schedule	2. Manufacturer's Name: Model Number Rated Capacity	1. Type of Incinerator:	If Waste Disposal is by Incineration, Specify the Following:			Type (Describe)	B Description of Waste Materials	5	Address	Company Name	3
	Days / Year	Pounds / Day Tons / Year Hours / Day	Pounds / Hour	single chamber multiple Chamber	lowing:			Maximum Amount Per Day (Pounds)	C				
 Open Burning Landfill (No Burning) Incinerator (Complete rest of Form) 	*1 D		Type Waste	Rotary Flue Fed			-	Amount Per Year (Tons)	ם		Date	Information for Year	
5. Burned in Boiler or Furnance 6. Other (Specify) f Form)	*1 Disposal Method Codes		 Vaste					1* Method of Disposal	т			(Agency Use Only)	

4. Conical Burner (TeePee)

PAGE 2

(AGENCY USE ONLY)	

5.	Auxiliary Fuel:	Туре		
		Amount/Year (Specify Units) _		
		Heat Content		
		Percent Sulfur		
		Percent Ash		
		Supplier's Name _		
6.	Pollution Control Equipment:	Manufacturer _		
		Model Number _		
		% Efficiency _		
		Type _		
		GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	Height		Feet
		Inside Exit Diameter _		Feet
		Exit Gas Velocity _		Feet/Sec.
		Exit Gas Volume		SCFM
		Exit Gas Temp.		°F.
8.	Estimated Emissions From Ref	use Incineration:		
	Name:	Ва	asis of Estimates:	
	Particulates	Tons/Year		
	Sulfur Oxides	II		

ADDITIONAL INFORMATION REQUIRED FOR APPROVAL TO CONSTRUCT.

The following additional information must be submitted. Failure to submit any of the additional information or to conform to the instructions will result in initial denial of the application.

- 1. Site Plan The drawing or sketch submitted must be to scale and show at least the following:
 - A. The property involved and outlines and heights of all buildings. Identify property lines plainly.
 - B. Location and identification of all existing or proposed points of discharge of air contaminant to the atmosphere.
 - C. Location of streets and all adjacent properties. Show location of all buildings outside the property that are within 150 feet of the equipment involved in the application. Identify all such buildings (as a residence, apartment, warehouse, etc.), specifying number of stories. Indicate north, and prevailing wind direction.
- II. Drawings of Equipment (See Note Below) Supply an assembly drawing, dimensioned and to scale, in plan, elevation and as many sections as are needed to show clearly the design and operation of the equipment and the means by which air contaminants are controlled. The following must be shown:
 - A. Size and shape of equipment. Show exterior and interior dimensions and features.
 - B. Locations, sizes, and shape details of all features which may affect the production, collection, conveying or control of air contaminants of any kind; location, size and shape details concerning all materials handling equipment.
 - C. All data and calculations used in selecting or designing the equipment.
 - D. Horsepower rating of all motors driving the equipment.

NOTE. Structural design calculations and details are not required.

ADDITIONAL INFORMATION MAY BE REQUIRED.

III. Description of Process and Control Equipment - The application must be accompanied by two copies of a written description of each process to be carried out in the facility and the function of the equipment used in the process. The descriptions must be complete and particular attention must be given to explaining all stages in the process where the discharge of any materials might contribute in any way to air pollution. Control procedures must be described insufficient detail to show the extent of control of air contaminants anticipated in the design, specifying the expected efficiency of the control devices. All obtainable data must be supplied concerning the nature, volumes, particle size, weights, chemical composition and concentrations of all types of air contaminants.

IV. Two copies of a block flow diagram showing the steps of the process and the flow of materials through the process and any control devices must be supplied. The application form, site plan, and equipment must be signed and stamped by an engineer registered in the State of Mississippi. ADDITIONAL INFORMATION I. Two copies of construction III. Two copies of a detailed site plot plan. explanation of the process and control equipment. II. Two copies of detailed IV. Two copies of a flow diagram equipment drawings. of the process or operation showing control devices. SIGNATURES: If for construction, the application must be submitted in duplicate and both copies signed and stamped by an engineer registered in the State of Mississippi, and signed by a duly authorized legal representative of the company who accepts the responsibility for the application. If for Existing Facility or Renewal of Permit to Operate, registered engineer's signature not required. All signatures and stamps must be originals on all copies, not photocopies. Signature of Engineer Signature of person accepting registered in Mississippi responsibility for this application. Fred K. Lane 3355 R. H. Heller Typed name and Mississippi Typed Name Registration Number Seal of Engineer Registered in Mississippi

TABLE 1

CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare 05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

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

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RAY TRIBBLE MONEY

STATE OF MISSISSIPPI



Glen Wood, Jr. **EXECUTIVE DIRECTOR**

POST OFFICE BOX 827

TELEPHONE 354-6783

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CHARLES W. ELSE YAZOO CITY

ASSOCIATE MEMBERS

STATE PARK SYSTEM DR. JOHN M. KING

A & I BOARD PAUL BURT

GEOLOGICAL SURVEY W. H. MOORE

09/24/75

HERCULES INC OF HATT WEST 7TH STREET HATTLESBURG MS 3940 MS 39401

CONTACT

CHARLES JORDAN

COHNTY NO.

SUBJECT

DPERATING PERMIT EXPIRES .

SHURCE NO. 00003 PHINT WO.

DATE

02/06/77

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GENTLEMEN

A REVIEW OF BUR FILES INDICATES THAT YOUR PERMIT TO OPERATE EXPIRES SOON.

PLEASE NOTE THAT COMMISSION REGULATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR RENEWAL OF YOUR PERMIT TO OPERATE AT LEAST NINETY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REQUEST TO THE ADDRESS SHOWN ABOVE.

IF YOU HAVE ANY QUESTIONS, PLEASE OR NOT HESITATE TO CON-

VERY TRHLY YOURS,

WIKE KENNEDA DIV. OF AIR POLLUTION CONTROL

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

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BOARD OF WATER COMMISSIONERS JACK PEPPER

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A & I BOARD **PAUL BURT**

GEOLOGICAL SURVEY W. H. MOORE

09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

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CONTACT

CHARLES JORDAN

COUNTY NO.

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OPERATING PERMIT EXPIRES

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02/08/77

SOURCE NO.

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GENTLEMEN

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VERY TRULY YOURS.

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

January 26, 1976

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

Attn: 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 through December 31, 1975. 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

JAN 27 1978

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

Type	No-flow	No-flow	No	No-flow		H2 Purg	H2 Purg		No-flow		No-flow		No-flow
Assessment of Emissions Control Equipment	Total Condenser	Total Condenser	Total Condenser	Total Condenser		Soda Ash Soln. Neutralization	None		Barometric		Barometric Condensers		None
Asser Potential Emissions	Water of Reaction	Mineral Spirits	Nil	Nil		Hydrogen H2S	Hydrogen		Lin		Para-Menthane		Nîl
Type Products Produced	Amide	Resin	Resin Blend	Resin Blend		Desulfurized- Hydrogenated Resin	Hydrogenated Resin		pistilled Resin		Resin		Melted Rosin
Raw Materials Used	Stearic Acid Ethylene Diamine Silicone Oil	Resin Mineral Spirits	Resins	Resins		Resin Para-Menthane Hydrogen	Rosin Hydrogen		Rosin		Resin para-Menthane		Rosin
Duration of tests (Days)	Ĺη	8	5	н		92	93		107		17		100
Experimental Equipment Name Kettle	(A)	(B)	(0)	(D)	Reactors	(A)	(B)	Still	(A)	Evaporator	(A)	Melter	(A)

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- Forcest

Air & Water Pollution Control Commission

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

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RAY TRIBBLE

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Glen Wood, Jr.
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JACKSON, MISSISSIPPI 39205

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ASSOCIATE MEMBERS

STATE PARK SYSTEM DR. JOHN M. KING

A & I BOARD PAUL BURT

GEOLOGICAL SURVEY

09/24/74

HERCULES INC OF HATT MEST 7TH STREET HATTLESBURG MS 39401

CONTACT

CHARLES JURDAN

COUNTY NO. DROD

SHBJECT

PPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE

02/06/71

GENTLEMEN

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

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VERY TRILLY YOURS.

MIKE KENNEDY DIV. DE AIR POLLUFION CONTROL edoly Ing O





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

July 9, 1976

RECEIVE

AIR C. WATEL POLLUTION CONTROL COMMESSION

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

Attn: 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 through June 30, 1976. We will continue to submit the required documentation on a semi-annual basis.

Yours very truly,

HERCULES INCORPORATED

By:

Charles S. Jordan

Senior Chemical Engineer

CSJ:jr

Attachment

•	É	Type Vent		No-flow	No-flow	No-flow	(H ₂ Purge	H ₂ Purge	H ₂ Purge		No-flow		No-Flow
	Assessment of Emissions	Equipment		Total Condenser	Total Condenser	Total Condenser		None	None	None		Barometric Condensers		Barometric Condensers
	Asses	Emissions		Water of Reaction	Isopropanol	Nil		Hydrogen	Hydrogen	Hydrogen		Nil		Para-Menthane
	Type Products	Produced		Amide	Resin Solution	Resin Blend		Hydrogenated Resin	Hydrogenated Resin	Hydrogenated Polymer		Distilled Resin		Resin
	Raw Materials	Used		Stearic Acid Ethylene Diamine Silicone	Isopropanol Resin	Resins		Resin Para-Menthane Hydrogen	Rosin Hydrogen	Polymer Hydrogen Isopar H		Rosin		Resin para-Menthane
	Duration of tests	(Days)		56	4	Г		15	59	14		49		14
	Experimental Equipment	Name	Kettle	(A)	(B)	(c)	Reactors	(A)	(B)	(3)	Still	(A)	Evaporator	(A)

COMMISSIONERS

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MARINE CONSERVATION COMMISSION W. J. DEMORAN

W. E. GUPTON JACKSON

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RAY TRIBBLE MONEY

STATE OF MISSISSIPPI



Glen Wood, Jr. **EXECUTIVE DIRECTOR**

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TELEPHONE 354-6783

SIXTH FLOOR ROBERT E. LEE BUILDING JACKSON, MISSISSIPPI 39205

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STATE PARK SYSTEM DR. JOHN M. KING

A & I BOARD **PAUL BURT**

GEOLOGICAL SURVEY W. H. MOORE

HERCULES INC OF HATT HEST 7TH STREET HATTLESBURG MS 394 MS 39401

CONTACT

CHARLES JORDAN

SURJECT

OPERATING PERMIT EXPIRES

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62/06/77

09/24/76

COUNTY NO.

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SOURCE NO. POINT NO. 020

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT YOUR PERMIT TO OPERATE EXPIRES SOON.

PLEASE MOTE THAT COMMISSION RECHLATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR RENEWAL OF YOUR PERMIT TO OPERATE AT LEAST NINETY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REQUEST TO THE ADDRESS SHOWN ABOVE.

TACT US.

VERY TRULY YOURS ...

MIKE KENNERY

DIV. OF AIR POLLUTION CONTROL

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN

OIL & GAS BOARD QUINCY R. HODGES BOARD OF HEALTH JOE D. BROWN

MARINE CONSERVATION COMMISSION W. J. DEMORAN

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STATE OF MISSISSIPPI



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CHARLES W. ELSE YAZOO CITY

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STATE PARK SYSTEM DR. JOHN M. KING

A & I BOARD PAUL BURT

GEOLOGICAL SURVEY

09/74/76

HERCHLES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

CHIVTAGT

CHARLES JORDAN

COHRTY NO.

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OPERATING PERMIT EXPIRES

SHURCE NO. POINT NO.

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DATE

02/06/77

GENTLEMEN

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TACT US.

VERY TRILLY YOURS.

DIV. HE ATE POLITITION CONTROL



COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

OIL & GAS BOARD QUINCY R. HODGES **BOARD OF HEALTH** JOE D. BROWN MARINE CONSERVATION

COMMISSION W. J. DEMORAN

JACKSON HERMIT A. JONES CANTON

RAY TRIBBLE MONEY

W. E. GUPTON

STATE OF MISSISSIPPI



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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

BERCULES INC DE HATT WEST 7TH STREET HATTLESBURG MS 39401

GANTACT

CHARLES JORDAN

COUNTY NO.

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SUBJECT OPERATING PERMIT EXPIRES

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02/06/77

GENTLEMEN

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and drawn we MIKE KENNESSY

DIV. DE AIR POLLUTION CONTROL

COMMISSIONERS

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BOARD OF HEALTH

MARINE CONSERVATION

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A & I BOARD PAUL BURT

GEOLOGICAL SURVEY W. H. MOORE

09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

CHURTY NO.

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SUBJECT

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MIKE SEAMEDY DIV. OF AIR POLLUTION CONTROL.

STATE OF MISSISSIPPI

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JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

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W. E. GUPTON JACKSON

HERMIT A. JONES CANTON

RAY TRIBBLE



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A & I BOARD PAUL BURT

GEOLOGICAL SURVEY W. H. MOORE

09/24/76

HERCULES INC OF HATT WEST TIP STREET HATTIESBURG MS 39401

CHAITACT

CHARLES JORDAN

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OPERATING PERMIT EXPIRES

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COMMISSIONERS

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MARINE CONSERVATION COMMISSION W. J. DEMORAN

W. E. GUPTON JACKSON

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RAY TRIBBLE

STATE OF MISSISSIPPI



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A & I BOARD PAUL BURT

GEOLOGICAL SURVEY W. H. MOORE

09/24/76

HERCULES INC DE HATT WEST 7TH STREET HATTIESBURG MS 39401

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CHARLES JURDAN

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OPERATING PERMIT EXPIRES

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02/06/77

POINT NO.

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DIV. OF AIR POLITION CONTROL

STATE OF MISSISSIPPI

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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

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

May 14, 1976

File Herenles Dre No5 Pockage Boiler - OLL Forrest Co.

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

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Charles Jordan Senior Chemical Engineer Hercules, Incorporated West Seventh Street Hattiesburg, Mississippi 39401

SUBJECT: Request to burn additional No. 6 fuel oil under natural

gas curtailment

Dear Mr. Jordan:

Pursuant to your request, the Commission has acted to permit the burning of No. 6 fuel oil.

Enclosed are conditions to the Permits to Operate issued to the Union Iron Work Boilers - Tall Oil Plant and Package Boiler No. 5. These conditions constitute variances to Section 4.1(b) of Regulation APC-S-1 and as such allow the increased use of No. 6 fuel oil in these boilers. These variances are, as indicated, conditioned with fuel analysis and use reporting requirements. While no specific maximum sulfur content is specified, you, of course, must, at all times, comply with Section 4.1(a) of Regulation APC-S-1.

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. Therefore, if these boilers are brought into compliance by the date of the curtailment on gas, then we will issue Permits to Operate with variance conditions; if not, then there will be no legal vehicle (other than an Order) by which the variance allowance can be extended to these boilers.

If you have any questions, please contact us.

Very truly yours,

Jerry M. Stubberfield Chief - Division of Air Pollution Control

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West Seventh Street Hattiesburg, Mississippi

Facility No: 0080-00001-011 (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 February 6, 1977.

Operation of this facility at higher sulfur dioxide emission levels than in 1970 after February 6, 1977, 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 above stated authorization null and void.



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



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

TELEPHONES:

ADMINISTRATIVE OFFICES 601-354-7513 AIR DIVISION 601-354-6783 WATER DIVISION 601-354-7661

MEMORANDUM

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

TO:

Jerry M. Stubberfield

FROM:

Cal Thames

SUBJECT:

Hercules Incorporated

Stack Tests of Emission Points 009 and 010

DATE:

February 27, 1976

In reference to Mr. Charles Jordan's letter of January 29, 1976, an explanation of how the chain of events actually occurred needs to be made.

The blueprint that I requested to show the length and inside dimensions of the breeching and the configuration of the breeching with respect to the stack, failed to show the bypass duct in which the test was actually made. This was confirmed by the tester, Brent Blunt, after his own study of the blueprint after he had completed the emissions test.

The two conditions placed on the test, i.e., forty eight traverse points and no more than 10 zero or negative velocities, were met but they were established on the premise that the test would occur in the breeching with the dimensions given on the blueprint. was not the case.

Approximately a week before the scheduled test date, I received a call from Mr. Brent Blunt to say that the test would not occur on the scheduled date and would be rescheduled at a later date. On January 13, 1976, Dr. Corbin McGriff was asked if the test would take place on January 14, 1976, after an indication from Mr. Jordan that the test would begin the 14th. Dr. McGriff stated that his firm would test Hercules on the 14th but that he assumed that it was not for compliance purposes since officials from Hercules had indicated that they did not wish the test to be observed by this Commission.

MEMORANDUM Page 2 February 27, 1976

The test was never officially scheduled for January 14, 1976, it was not observed, and it was not conducted in the breeching as was previously agreed. The test therefore cannot be considered valid and should not be used for proof of compliance.

JCT:sr

STATE OF MISSISSIPPI

COMMISSIONERS

RAY TRIBBLE CHAIRMAN MONEY

JAMES W. CARRAWAY VIGE CHAIRMAN BASSFIELD

BOARD OF HEALTH JOE D. BROWN

KENNETH COBB

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OIL & GAS BOARD QUINCY R. HODGES

HERMIT A. JONES CANTON

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

May 14, 1976

File-Herene Inc. Boilers 344 (614)

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

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Charles Jordan
Senior Chemical Engineer
Hercules, Incorporated
West Seventh Street
Hattiesburg, Mississippi 39401

SUBJECT: Request to burn additional No. 6 fuel oil under natural

gas curtailment

Dear Mr. Jordan:

Pursuant to your request, the Commission has acted to permit the burning of No. 6 fuel oil.

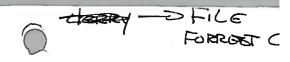
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The Commission's approval of the variances will also be applicable to the woodwaste boilers, but only after compliance with particulate regulations has been proved and Permits to Operate issued. Therefore, if these boilers are brought into compliance by the date of the curtailment on gas, then we will issue Permits to Operate with variance conditions; if not, then there will be no legal vehicle (other than an Order) by which the variance allowance can be extended to these boilers.

If you have any questions, please contact us.

Very truly yours,

Jerry M. Stubberfield Chief - Division of Air Pollution Control



AIR & WATER POLLUTION CONTROL COMMISSION

STATE OF MISSISSIPPI



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

April 23, 1976

REGISTERED MAIL RETURN RECEIPT REQUESTED

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

ATTN: Mr. Cal Thames

Gentlemen:

In reference to your March 29, 1976, letter for an acceptable alternative sampling method as proof of compliance on the wood boilers at Hercules in Hattiesburg and our subsequent discussion during our April 14, 1976, visit with the Commission Staff in Jackson, the following sampling procedure has been developed.

- (1) We have retained Environmental Protection Systems from Jackson, Mississippi, to perform the required particulate emissions tests on May 20, 1976, starting at 7:00 AM.
- (2) A simultaneous forty-eight point preliminary velocity traverse will be run in the two boiler breechings common to the South stack.
- (3) As requested in your March 29, 1976, letter, after the selection of the ideal size sampling nozzle, simultaneous breech testing will be run using the ideal size nozzle and then the next largest nozzle. A total of six tests will be run using alternating size nozzles. Three simultaneous tests will be averaged to give the final stack emission for each size nozzle.
- (4) This procedure was discussed with Mr. Jerry Rom, EPA Region IV, since the actual difference in results from using the next largest nozzle instead of the ideal size sampling nozzle is unknown. We feel this is necessary to protect us from an unreasonable increase in calculated emissions should it occur.
- (5) Emissions data from the South stack would be applied to the North stack since it and the two wood boilers common to it are similar to the South stack and its wood boilers.

Should you have any questions, please contact me.

Very truly yours,

Charles Jordan

Senior Chemical Engineer

Con PADIO

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.:	A/P	
1 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

REPORT OF FIELD INVESTIGATION

DATE: September 9, 1976

SUBJECT: Hercules Inc. - Forrest County

PERSON REPORTING: Judy Linskey

On September 9, 1976, I performed a V.E. Reading on the

#3 and #4 boilers at Hercules Inc., in Hattiesburg. I contacted Mr. Charles Jordan. Notice an error in the time the readings were taken. This has been corrected on Mr. Jordan's Copy.

I will read boiler #1 and #2 at a later date. If any further information is needed, please contact me.

9.14.20 Royals

Darryl Byrd

DB:mml

cc: Mr. Tommy Gingles

cc: Ms. Judy Linskey

CONTROL COMMISSION STATE OF MISSISSIPPI

SEP 1 4 1976

MISSISSIP AIR & WATER POLLUTION CONTROL MISSION SIBLE EMISSIONS EVALUATION RECORD DATE:

PLANT NAME:			V.E.	OBSERVER:				
ADDRESS:			V.E.	CERTIFICA	TION NO.:			
CITY:		4	CERTIFICATION EXPIRATION:					
EMISSION POINT:	,	<u>+ 4 </u>	SET NO.			OPAC		
RECEIVED BY:		<u> </u>		START	END	SUM AVERAGE		
	INITIAL	FINAL		2	3	Hajja i		
DISTANCE TO DISCHARGE	2004		- 11	3				
DIRECTION TO DISCHARGE	M 4.	HL			3			
HEIGHT OF OBSERVATION POINT	Placet To	Las Var		3	3			
HEIGHT OF DISCHARGE	2114	7247			S	ECONDS*		
PLUME COLOR	Liberty W.	hits K	MIN.*	0	15	30	45	
PLUME BACKGROUND	Car Anna S	1	0 1		7.7			
VATER VAPOR IN PLUME?	50.57		2 3		4	74		
VIND DIRECTION	Ve/	39.7	4					
IND SPEED	1-3		5		70		-	
	10	60	1					
MBIENT TEMPERATURE	10-78		3					
ISCHARGE TEMPERATURE	The same		<u>4</u> 5					
KY CONDITIONS	Protection.	Washington Co.	0					
LAGRAM OF OBSERVER/DISCHARGE POINT			1 2					
	4		3					
			5	1	20			
							-	
			REMARKS:					
				12.0				
				· · · · · · · · · · · · · · · · · · ·				
			*IF READI	ING TIME IN	NTERVAL NO	OT AS SHOWN,	SPECIFY	

STATE OF MISSISSIPPI

COMMISSIONERS

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RAY TRIBBLE



Glen Wood, Jr.

POST OFFICE BOX 827

TELEPHONE 354-6783

SIXTH FLOOR ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39205

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ASSOCIATE MEMBERS

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GEOLOGICAL SURVEY

00/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

CHUNTY NO.

0800

SUBJECT

OPERATING PERMIT EXPIRES

SOURCE NO.

00001

DATE

02/06/77

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT YOUR PERMIT TO OPERATE EXPIRES SHOW.

PLEASE NOTE THAT COMMISSION REGULATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR RENEWAL OF YOUR PERMIT TO OPERATE AT LEAST NIGHTY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REDUEST TO THE ADDRESS SHOWN ABOVE.

IF YOU HAVE ANY OUESTIONS, PLEASE DO NOT HESITATE TO CON-

VERY TRULY YOURS.

WIKE KENNEDY

STATE OF MISSISSIPPI

COMMISSIONERS

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ASSOCIATE MEMBERS

STATE PARK SYSTEM DR. JOHN M. KING

A & I BOARD PAUL BURT

GEOLOGICAL SURVEY W. H. MOORE

119/24/76

HERCHLES INC OF HATT WEST 7TH STREET HATTIESBURG MS 3940)

CHAITAGT

CHARLES JORDAN

COUNTY NO.

CORO

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MPERATING PERMIT EXPIRES

SOURCE NO.

00001

DATE

02/06/77

GENTLEMEN

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TAGT US.

VERY TRULY YOURS. ,

MIKE KENNEDY

DIV. OF AIR POLITION CONTROL

Journst Co.

005

February 9, 1976

Mr. Charles S. Jordan Hercules, Incorporated West 7th Atreet Hattiesburg, Ms. 39401

Dear Mr. Jordan:

This letter is in reference to your letter of February 4, 1976, to Mr. Jerry Stubberfield. The Beckman 906A Sulfur Dioxide Analyzer will be acceptable as an adequate instrument to fulfill the monitoring requirements for the Delnav Plant.

As soon as possible, please give us an estimate of the date you expect the monitors to be operational and ready to install at the monitoring sites.

If you should have any questions, please feel free to contact me.

Very truly yours,

J. Calvin Thames Chief Planning & Standards Section

JGT: sr

WAYNE

DEWAYPIT.



HERCULES INCORPORATED

005

HATTIESBURG, MISSISSIPPI 39401

February 11, 1976



AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

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

ATTN: Mr. J. Calvin Thames

CONTINUOUS SULFUR DIOXIDE MONITORING

Re your letter of February 9, 1976, in order to submit our best estimate of the date we expect to have two (2) Beckman 906A Analyzers operational and ready to install, we will need the location of two (2) approved monitoring sites to be designated by your staff.

If you have any questions, please feel free to contact me.

Very truly yours,

HERCULES INCORPORATED

By:

Charles Jordan

CJ:p

Cal- please resp.





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 4, 1976



AIR & WATER POLLUTION

CONTROL COMMISSION

STATE OF MISSISSIPPI

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

Attn: Mr. Jerry Stubberfield

Gentlemen:

CONTINUOUS SULFUR DIOXIDE MONITORING

Re our application to expand the Delnav Plant, we have chosen the Beckman Model 906A Sulfur Dioxide Analyzer (P/N 190604) to meet the requirements on monitoring of Section 4.2(b), Regulation APC-S-1.

We will need your approval of this type analyzer so that we can develop an SO2 monitoring program at two (2) approved sites to be designated by your staff.

Your prompt review of this request for approval would be appreciated so that we can request authorization of funds for purchase of this equipment.

Yours very truly,

HERCULES INCORPORATED

Charles S. Jordan

CSJ:p





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

April 9, 1976



Mr. J. Calvin Thames State of Mississippi Air & Water Pollution Control Commission Air Division P. O. Box 827 Jackson, Mississippi 39205



Dear Cal:

The following methods were used with our computer model for a 2" I.D. flare tower burning 17.6 grams/second of HoS from an 89% HoS gas stream with a natural gas pilot flame of 950 cubic feet/hour. On the recommendation of G. A. Briggs, the heat value was reduced 25% to allow for radiant heat losses.

For heat emission rate

heat emission rate

$$H_2S$$

Qh = 0.75 $\left(\frac{17.6 \text{ g.}}{\text{Sec.}} \times \frac{136,701 \text{ cal.}}{3^4 \text{ g.}}\right) + \left(\frac{950 \text{ cu. ft.}}{\text{hr.}} \times \frac{1,000 \text{ Btu}}{\text{cu.ft.}} \times \frac{.07 \text{ cal/sec.}}{\text{Btu/hr.}}\right)$

Qh = 102,947 cal./sec.

For stack emission volume flow rate

$$F = \frac{102,947 \text{ cal./sec. X 1144°K.}}{0.237 \text{ cal./g. °K X 1292.8 g./M}^3 \text{ X 295°K X 849°K}}$$

$$F = 1.53 \text{ M}^3/\text{sec.}$$

For flare tip exit velocity

$$\left(\frac{17.6 \text{ g. x } \cdot 0224\text{M}^3}{3^4 \text{ g.}} \times \frac{1}{.89}\right) \times \left(\frac{\cancel{4}}{(.0508)^2 \times 3.1416}\right) = 6.41 \text{ M/sec.}$$

For equivalent diameter

$$\sqrt{\frac{1.53 \times 4}{6.41 \times 3.1416}} = 0.55 \text{ M}$$

Therefore for input.

Source strength = 33.13 g./sec. (SO₂) Physical height = 30.48 M Stack gas temperature = 1144°K Stack gas velocity = 6.41 M/sec. Stack gas eq. dia. = 0.55 M Volume flow = 1.53 M³/sec.

These data result in concentrations for 10 min.—one hour sampling times. The 10 min.—one hour maximum concentration was 781 micrograms/M³. To convert to three hour and 24 hour values, the EPA manual factors from Table 5-1 were used:

Sampling time		Ratio
3	minutes	1.0
1	hour	.61
3	hour	•51
24	hour	.36

We flare a maximum of 9 hours in any 24 hour period.

Therefore, the expected three hour value is 781 X $\frac{.51}{.61}$ = 653 g.-6/M3

The expected 24 hour value is 781 X $\frac{.36}{.61}$ X $\frac{9 \text{ hr.}}{24 \text{ hr.}}$ = 173 g. $-6/\text{M}^3$

It should be noted that the 11% flare gas other than $\rm H_2S$ (primarily Benzene) was omitted in our heat emission calculation and would actually increase the volume flow to 1.72 $\rm M^{3/sec}$. This would have actually lowered the calculated $\rm SO_2$ concentrations.

If we can be of any further assistance please do not hesitate to contact Frank Gardner or myself.

Yours very truly,

HERCULES INCORPORATED

1: Crui

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Forrest Empto02 November 1, 1976 Hercules, Incorporated West 7th Street Hattlesburg, Mississippi 39401 Gentlemen: Stack Emissions Test Report Boilers No. 1 & No. 2 After a review of the stack emissions test report on the above referenced facility, I find that the test procedures and the test report conform to the requirements outlined by the Mississippi Air and Water Pollution Control Commission. The test report is therefore accepted and the reported results will be used in determining this facility's compliance with applicable regulations. If you have any questions, please feel free to contact me. Very truly yours, Judith A. Linskey Engineer Division of Air Pollution Control JAL: ps

STATE OF MISSISSIPPI

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GEOLOGICAL SURVEY

W. H. MOORE

09/24/76

HERCHLES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401

CONTACT

CHARLES JORDAN

COUNTY NO.

0800

SHBJECT

OPERATING PERMIT EXPIRES

SHURCE NO.

00001

DATE

02/06/77

GENTLEMEN

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IF YOU HAVE ANY QUESTIONS. PLEASE DO NOT HESITATE TO COMPTACT US.

VERY TRHLY VOURS.

MIKE KENILEDLY

DIV. OF AIR POLLUTION CONTROL

STATE OF MISSISSIPPI

COMMISSIONERS

RAY TRIBBLE CHAIRMAN MONEY

JAMES W. CARRAWAY VICE CHAIRMAN BASSFIELD

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BARRY O. FREEMAN

OIL & GAS BOARD QUINCY R. HODGES

HERMIT A. JONES CANTON



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

May 14, 1976

HERCULTS ANG.
HAROLD A. CROSS
GEOLOGICAL SURVEY FILE HERCHES INC.

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

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Charles Jordan Senior Chemical Engineer Hercules, Incorporated West Seventh Street Hattiesburg, Mississippi 39401

Request to burn additional No. 6 fuel oil under natural SUBJECT:

gas curtailment

Dear Mr. Jordan:

Pursuant to your request, the Commission has acted to permit the burning of No. 6 fuel oil.

Enclosed are conditions to the Permits to Operate issued to the Union Iron Work Boilers - Tall Oil Plant and Package Boiler No. 5. These conditions constitute variances to Section 4.1(b) of Regulation APC-S-1 and as such allow the increased use of No. 6 fuel oil in these boilers. These variances are, as indicated, conditioned with fuel analysis and use reporting requirements. While no specific maximum sulfur content is specified, you, of course, must, at all times, comply with Section 4.1(a) of Regulation APC-S-1.

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. Therefore, if these boilers are brought into compliance by the date of the curtailment on gas, then we will issue Permits to Operate with variance conditions; if not, then there will be no legal vehicle (other than an Order) by which the variance allowance can be extended to these boilers.

If you have any questions, please contact us.

Very truly yours,

Jerry M. Stubberfield Chief - Division of Air Pollution Control

ADDITIONAL CONDITION

ISSUED TO

Hercules Incorporated West Seventh Street Hattiesburg, Mississippi

Facility No: 0800-00001-004

(Union Iron Works Boilers - Tall Oil Plant)

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 February 6, 1977.

Operation of this facility at higher sulfur dioxide emission levels than in 1970 after February 6, 1977, 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 above stated authorization null and void.

STATE OF MISSISSIPPI

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RAY TRIBBLE



Glen Wood, Jr.

POST OFFICE BOX 827

TELEPHONE 354-6783

SIXTH FLOOR ROBERT E. LEE BUILDING

JACKSON, MISSISSIPPI 39205

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A & I BOARD PAUL BURT

GEOLOGICAL SURVEY

09/24/76

HERCULES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

CONTACT

CHARLES JORDAN

CREETY NO. /

0800

SHEJECT

OPERATING PERMIT EXPIRES

SOURCE NO. COCO1
POINT NO. 003

HATE

02/06/77

2710011

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT YOUR DERMIT TO OPERATE EXPIRES 500N_{\bullet}

PLEASE NOTE THAT COMMISSION REGULATIONS REQUIRE THAT YOU FILE AN APPLICATION FOR MENEWAL OF YOUR PERMIT TO OPERATE AT LEAST NIMETY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REQUEST TO THE ADDRESS SHOWN ABOVE.

IF YOU HAVE ANY OUESTIONS, PLEASE OF NOT HESITATE TO COM-

VERY TRULY YOURS,

MIKE KENNEDY

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN BASSFIELD

OIL & GAS BOARD QUINCY R. HODGES BOARD OF HEALTH JOE D. BROWN MARINE CONSERVATION COMMISSION W. J. DEMORAN

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GEOLOGICAL SURVEY

W. H. MOORE

09/24/75

HERCILES INC OF HATT WEST 7TH STREET HATTLESBURG MS 39401

CHAITACT

CHARLES JORDAN

CHUNTY MIT.

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OPERATING PERMIT EXPIRES

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02/05/77

GENTLEMEN

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VERY TRULY YOURS.

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL

INSPECTION ACTION INFORMATION

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP 08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 MS 39401 DESCRIPTION PARACOL PLANT

00001

110

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6 7

0800

DATE PERFORMED (MO/DAY/YR) (54-59)

TELEPHONE CONTACT **ENGINEER**

18-MONTH INSPECTION

601 5846411 CHARLES JORDAN MIKE KENNEDY

CARD ACTION TYPE TYPE (18) (52-53) COUNTY SOURCE EM. -PT. ACTION CODE NUM NUM NUM **AGCY ACTION** CODE CODE (1-3) (4-7) DESCRIPTION CODE

02

(8-12) (13-15) (16-17)(18)

035

COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72)

16

7

UPDATE CODE (80)

N

N

C

SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER 12

FOR ENGINEERING USE ONLY ***** ******** STAFF NEXT-ACTION HRS TO COMPLETE (66-68) (73-74) (75-76) UPDATE NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) (60-65) LETTER MEMBER CODE CODE (80)XX 7 N ENGINEERING COMMENTS CARD UPDATE LINE NUMBER CODE COMMENTS (18) (19)(20-54)(80)N N 8 2 N 8 3 N 8 4 5 N 8

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED
COMPANY NAME
HERCULES INC OF HATT
ADDRESS
WEST 7TH STREET
CITY-STATE-ZIP
DESCRIPTION
COLUMN 5-TALL OIL PLANT

TELEPHONE 601 5846411 CONTACT CHARLES JORDAN ENGINEER MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 034 02 7 16 18-MONTH INSPECTION

DATE PERFORMED COMPLETED ACTION HOURS TAKEN (MO/DAY/YR) RESULTS TO COMPLETE (54-59) (69-70) (71-72)

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UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

********* FOR ENGINEERING USE ONLY ******* NEXT-ACTION HRS TO TYPE (73-74) (75-76) VEXT-ACTION CARD NEXT-ACTION DATE (MO/DAY/YR) STAFF MEMBER LETTER CODE_ UPDATE CODE (60-65) (16-17)(18)(66-68) (73-74)XX 7 N ***** ENGINEERING COMMENTS ***** CARD TYPE (18) LINE NUMBER UPDATE COMMENTS CODE (19)(20 - 54)(80) 8 N 8 2 N 8 3 N 8 4 N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING:

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
SYNTHETIC PINE OIL FACIL

033

00001

TELEPHONE CONTACT ENGINEER

601 5846411 CHARLES JORDAN MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION CODE CODE NUM NUM NUM TYPE TYPE (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53) ACTION DESCRIPTION

02

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HOURS TAKEN

18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59)

> 6 7

0800

110

COMPLETED ACTION RESULTS (69-70)

TO COMPLETE (71-72)

16

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

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****	****	************ FOR ENGINEERING USE ONLY **********	*****
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XX		7	N
		******* ENGINEERING COMMENTS ********	
TYPE	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80) N
8	2		N
8	3		N
8	4		N
8	5		N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED
COMPANY NAME
ADDRESS
CITY-STATE-ZIP
DESCRIPTION

O8/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
SULFATE TURPENTINE REFING

TELEPHONE CONTACT CHARLES JORDAN MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 032 03 7 16 18-MONTH INSPECTION

DATE PERFORMED COMPLETED ACTION HOURS TAKEN (MO/DAY/YR) RESULTS TO COMPLETE (54-59) (69-70) (71-72)

7

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

******* FOR ENGINEERING USE ONLY ****** NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION
DATE (MO/DAY/YR)
(60-65) **LETTER** STAFF NEXT-ACTION HRS TO UPDATE COMPLETE (75-76) TYPE CODE (77-78) MEMBER CODE (18) (66-68) (73-74) (80)XX 7 N **ENGINEERING COMMENTS** ***** ***** CARD UPDATE LINE NUMBER COMMENTS CODE (19)(18)(20-54)(80) 8 Ň 8 2 N 8 3 N 8 4 N 5 8 N 8 6 N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING:Judy Linskey

General report is in entire source file.

INSPECTION ACTION INFORMATION

DATE SCHEDULED 08/06/75 COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 MS 39401 P-MENTHANE HYDROPEROXIDE TELEPHONE CONTACT ENGINEER 601 5846411 CHARLES JORDAN MIKE KENNEDY

AGCY COUNT CODE CODE (1-3) (4-7) SOURCE EM. PT. CARD ACTION TYPE TYPE (18) (52-53) COUNTY ACTION DESCRIPTION ACTION NUM

(52-53)(8-12) (13-15)(16-17)

110 0800 00001 031 7 02 18-MONTH INSPECTION 16

DATE PERFORMED (MO/DAY/YR) (54-59)

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72) UPDATE CODE (80)

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1 2 SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

******** FOR ENGINEERING USE ONLY ******* NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) (60-65) NEXT-ACTION HRS TO TYPE COMPLE **LETTER** UPDATE COMPLETE (75-76) CODE (77-78) MEMBER CODE (66-68) (73-74) (80)XX 7 N ***** **ENGINEERING COMMENTS** ***** CARD LINE UPDATE NUMBER COMMENTS CODE (18) (19)(20-54)(80) 1 N 8 2 N 8 3 N 4 N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

INSPECTION ACTION INFORMATION ***

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 MS 39401 UNIT PARA-MENTHANE

00001

TELEPHONE CONTACT ENGINEER

601 5846411 CHARLES JORDAN MIKE KENNEDY

Burker

AGCY COUNTY SOURCE EM. PT. ACTION CODE CODE NUM NUM NUM (1-3) (4-7) (8-12) (13-15) CARD ACTION TYPE TYPE **ACTION** DESCRIPTION

(16-17)(52 - 53)(18)110 0800

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7 02 16 18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59)

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72) UPDATE CODE (80)

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2 SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

******* FOR ENGINEERING USE ONLY ****** NEXT-ACTION HRS TO COMPLETE (73-74) (75-76) VEXT-ACTION CARD VUMBER TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) STAFF MEMBER LETTER UPDATE CODE (77-78) CODE (18)(60-65)(66-68)(73-74)(80) XX 7 N ***** ENGINEERING COMMENTS ******** CARD TYPE (18) LINE UPDATE NUMBER COMMENTS CODE (20-54)(19)(80) 8 N 8 2 N 3 8 N 8 4 N 5 8

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED
COMPANY NAME
ADDRESS
CITY-STATE-ZIP
DESCRIPTION

08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
PARA-CYMENE UNIT

TELEPHONE 601 5846411 CONTACT CHARLES JORDAN ENGINEER MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 029 02 7 16 18-MON

18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59) COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72)

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

******* FOR ENGINEERING USE ONLY NEXT-ACTION HRS TO LETTER TYPE COMPLETE CODE (73-74) (75-76) (77-78 NEXT-ACTION CARD NUMBER TYPE NEXT-ACTION
DATE (MO/DAY/YR)
(60-65) UPDATE STAFF MEMBER CODE (16 - 17)(18)(66-68)(73-74)(77-78)(80)XX 7 N ****** ENGINEERING COMMENTS ***** HODATE

TYPE (18) 8	NUMBER (19)	COMMENTS (20-54)	CODE (80) N
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8	3		N
8	4		N
8	5		N
8	6	**************************************	N
8	7	**************************************	N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976	_
SUBJECT:	18-Month Inspection - Hercules, Inc.	_
PERSON RE	PORTING: Judy Linskey	-

General report is in entire source file.

INSPECTION ACTION INFORMATION ***

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP 08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401 DESCRIPTION POLYRAD-POLYOL UNIT

00001

TELEPHONE CONTACT

601 5846411 CHARLES JORDAN MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CODE NUM NUM CARD ACTION TYPE TYPE ACTION DESCRIPTION NUM NUM NUM TYPE TYPE (8-12) (13-15) (16-17) (18) (52-53) (1-3) (4-7)

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18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59)

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72)

16

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER 1 $\bar{2}$

*** *	*****	*****	FOR ENGINEERING USE	ONLY *****	*****	*****
NEXT- NUMBE (16-1		CARD NEXT-ACTIO TYPE DATE (MO/D (18) (60-65)		ACTION HRS TO COMPLETE (75-76)	LETTER CODE (77-78)	UPDATE CODE (80)
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		*****	ENGINEERING COMMENT	S *******	***	
TYPE (18) 8	LINE NUMBER (19)	COMMENTS (20-54)				UPDATE CODE (80) N
8	2					N
8	3					N
8	4					N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RI	EPORTING:

INSPECTION ACTION INFORMATION ***

16

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP 08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401 RESIN 1977 PLANT DESCRIPTION

TELEPHONE CONTACT ENGINEER

18-MONTH INSPECTION

601 5846411 CHARLES JORDAN MIKE KENNEDY

DATE PERFORMED

(MO/DAY/YR) (54-59)

'ADD

LINE

AGCY CODE COUNTY SOURCE EM. PT. ACTION NUM NUM CARD ACTION
TYPE TYPE ACTION DESCRIPTION

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(8-12) (13-15) (16-17) (18) (52-53) (1-3)(4-7)00001 110 0800 7

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COMPLETED ACTION HOURS TAKEN RESULTS (69-70) TO COMPLETE

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

******** FOR ENGINEERING USE ONLY *********** NEXT-ACTION HRS TO LETTER TYPE COMPLETE CODE (73-74) (75-76) (77-78) NEXT-ACTION CARD TYPE NEXT-ACTION
DATE (MO/DAY/YR)
(60-65) STAFF **UPDATE** MEMBER CODE (16-17)(18)(66-68) (73-74) (80) 7 XX N

******* **ENGINEERING COMMENTS** *****

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8	4		N
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8	7		N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

INSPECTION ACTION INFORMATION ***

DATE SCHEDULED
COMPANY NAME
ADDRESS
CITY-STATE-ZIP
DESCRIPTION 08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 39401 RESIN AMINE D PLANT

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601 5846411 CHARLES JORDAN MIKE KENNEDY **TELEPHONE** CONTACT

COUNTY SOURCE EM. PT. ACTION NUM NUM CARD ACTION TYPE TYPE ACTION DESCRIPTION AGC Y CODE CODE CODE (1-3) (4-7) (52-53)(8-12) (13-15) (16-17) (18)

7 18-MONTH INSPECTION 110 0800 00001 026 02 16

COMPLETED ACTION RESULTS (69-70) DATE PERFORMED (MO/DAY/YR) (54-59) HOURS TAKEN TO COMPLETE (71-72)

UPDATE CODE (80)

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SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

FOR ENGINEERING USE ONLY ******** ********* NEXT-ACTION HRS TO TYPE COMPLETE (73-74) (75-76) NEXT-ACTION DATE (MO/DAY/YR) (60-65) LETTER CODE UPDATE NEXT-ACTION CARD NUMBER TYPE STAFF NUMBER (16-17) MEMBER CODE (66-68) (73-74) (77-78)(80)(18)7 N XX **ENGINEERING COMMENTS** ***** ***** UPDATE CARD LINE NUMBER CODE COMMENTS (18)(19) (20-54)(80) 8 1 2 N 8 N 8 3 N 8 4

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED
COMPANY NAME
ADDRESS
CITY-STATE-ZIP
DESCRIPTION

08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401
DEFOAMER PLANT

TELEPHONE 601 5846411 CONTACT CHARLES JORDAN ENGINEER MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 025 02 7 16 18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) R (54-59)

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COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72) UPDATE CODE (80)

C

SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

******** FOR ENGINEERING USE ONLY ******** VEXT-ACTION CARD TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) (60-65) STAFF MEMBER NEXT-ACTION HRS TO COMPLET **LETTER UPDATE** COMPLETE CODE (75-76) (77-78) CODE (66-68) (73-74) (80) 7 XX N ********* **ENGINEERING COMMENTS** ***** CARD TYPE (18) LINE UPDATE NUMBER COMMENTS CODE (19)(20-54)(80) 8 N 8 2 N 8 3

N N N

N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING:Judy Linskey

October 7, 1975 Hercules, Inc. P. O. Drawer 1937 Hattiesburg, Mississippi 39401 Gentlemen: Re: Construction Permit Permit No. 0800 00001 024 Kymene Plant Methanol Storage Tank Expires: September 29, 1976 The permit number indicated above has been assigned to your installation at the above address for the specific process indicated. This permit is valid for a period of one (1) year and should be displayed prominently at the facility itself. Please note that under State Regulations final construction must be certified by a professional engineer, registered in the State of Mississippi, that construction was performed in accordance with the approved plans and specifications on file with this agency. In order for the operation of your air emissions equipment to be in accordance with the rules and regulations of the Mississippi Air and Water Pollution Control Commission, a Performance Evaluation Permit must be obtained prior to actual startup of the air emissions equipment. This permit may be obtained by written request to the Commission, but cannot be issued until Certification of Construction is received. Should you have any questions about this permit, please contact Dwight B. Burkes of this agency. Very truly yours, E. P. Hardison, Jr. Senior Plan Review Engineer EPH 12 bw Division of Air Pollution Control Enclosure

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Construct Air Emissions Equipment

This Certifies That

Hercules West 7th Street Hattiesburg, Ms.

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

Facility No. <u>0800-00001-024</u>

Expires 29th day of September 19 76.

Nº 1091

Lest 29, 1975 Berwhen Ane.
//0 0800 0000/ 029 Procen Peremption: Methonol (Cg 1/3 014) in a by product of a chemical reaction. The method in En be stored in a 10,000 gollow tank Operating Schedule:
24 holding 7 dylwh & 2 whole. Procen Weight: Inethyl Ester Base 5904 /h 372#/h 962 #/La Allowable Eminion: No regulation governing hydrocarbon eminion. Proposed Construction:

Proposed Construct method vogor & a conduct the to a storage took with a check when (10,000 get capacity)

Emission Estimation: for the conderor in recovering well of voger. This

Juice 3 # the sugar emission rate. Considering the physical nature of the system to be constructed, I believe 3#/hr method vapor discharge to be firsty occurale; Line there are no regulation governing dydrocarbon smission and the method vapors in such quantities would not contribute to an air sollution problem, I recommed issue of a construction permit

INSPECTION ACTION INFORMATION ***

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 3940
KYMENE PLANT MS 39401

TELEPHONE CONTACT ENGINEER

601 5846411 CHARLES JORDAN MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CODE CODE NUM NUM NUM (1-3) (4-7) (8-12) (13-15) (16-17) CARD ACTION TYPE TYPE (18) (52-53) ACTION DESCRIPTION CODE (4-7)

(13-15) (16-17)

110 0800 00001 024 7 02 16 18-MONTH INSPECTION

DATE PERFORMED COMPLETED ACTION HOURS TAKEN (MO/DAY/YR) (54-59) RESULTS TO COMPLETE

UPDATE CODE (80)

C

* ADDITIONAL INFORMATION * (DO NOT WRITE IN THIS SPACE) ******** ***********

> SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER-CHECK FUGITIVE DUST FROM ADIPIC ACID HANDLING 123

******** FOR ENGINEERING USE ONLY ******** NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) (60-65) NEXT-ACTION HRS TO COMPLE STAFF LETTER **UPDATE** COMPLETE (75-76) CODE (77-78) MEMBER CODE (66-68) (73-74) (80)XX 7 N ******** ENGINEERING COMMENTS ****** CARD LINE **UPDATE** COMMENTS (20-54) NUMBER CODE (18) (19) (80) N 8 2 N

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STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
	EPORTING:Judy Linskey
1	SI

EMISSIONS SUMMARY FOR PERMIT DEPMINATION
KEY DATA 1/1/01 1018/010/ 1010/01/01/11 10/25/
PLAN REVIEW ENGINEER Swoken
FACILITY NAME Herculer obe
ADDRESS P.O. Promer 1937
Halliesburg M. 39 401
SITE LOCATION West 7th Sf.
TYPE PLANT OR PROCESS Chemical
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) (c) 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:

STATE OF MISSISSIPPI

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



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

HERCULES INC OF HATT)
WEST 7TH STREET
HATTIESBURG MS 39401

gonest

07/18/75

CONTACT

CHARLES JORDAN

COUNTY NO.

0800

SUBJECT

PERMIT APPLICATION RECIEVED

SOURCE NO. POINT NO.

MATE

10/10/75

GENTLEMEN

WE HAVE RECEIVED YOUR APPLICATION CONCERNING AN AIR POLLUTION EMISSION SOURCE. OUR STAFF IS IN THE PROCESS OF REVIEWING YOUR APPLICATION AND YOU WILL HEAR FROM US WITHIN RINETY DAYS.

IF YOU SHOULD HAVE ANY QUESTIONS CONCERNING THE STATUS OF YOUR APPLICATION PLEASE CONTACT THIS DEFICE.

VERY TRULY YOURS.

DWIGHT/BURKES DIV. OF AIR POLLUTION CONTROL

Imper 15 g



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

July 9, 1975

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

Attention: Mr. Jerry Stubberfield

Gentlemen:

Enclosed is an application for approval to construct modifications to an existing plant.

Very truly yours,

C. R. LeCroy

Project Engineer

CRL/de

Enclosures

STATE OF MISSISSIPPI

AIR AND WATER POLLUTION CONTROL COMMISSION

Air Division

P. O. Box 827

Jackson, Mississippi 39205

APPLICATION FOR APPROVAL TO CONSTRUCT

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INSTRUCTIONS

- Name of Facility give the name of the plant, mill, factory or business for which this application is made.
- 2. Location of Facility give street, road or highway address and UTM or Lat Long. of facility.
- 4. Name of Owner give name of person(s) or corporation which has day-to-day responsibility for ownership of facility.
- 6. In-plant person to be contacted on pollution matter give the name of an individual who is usually at the facility who is responsible for knowing about
- 7. Representing Engineer an engineer registered in Mississippi and under its laws, must approve the work to be done and be responsible for matters concerning this construction.
- 10. Plant Description should contain raw materials, finished products, processes employed and/or services performed.

This application is made under and in full accord with the provisions of Chapter 238, Mississippi Laws of 1966.

. Location of Facility Tow	n	County
West 7th Street Hattiesburg Latitude 31° 20' 28" N Longitude 89° 18' 20" W		Forrest
3. Mailing address of facility	City	Zip
P. O. Drawer 1937	Hattiesburg	39401
4. Name of Owner		Telephone
Hercules Incorporated		584-6411
5. Mailing address of owner	City	Zip
P. O. Drawer 1937	Hattiesburg	39401
6. In-plant person to be contacted on pollution matters		Title
F. H. Gardner		Chemical Supt.
7. Representing engineer		Telephone
F. K. Lane		584-6411
8. Mailing address of engineer	City	State Zip
P. O. Drawer 1937	Hattiesburg	39401
9. Correspondence to be sent to 1 4 6 7 above.		

This plant will be modified to substitute the methyl ester of the acid for the present acid feed material, yielding the same chemical product with methanol

water as a by-product.

as a by-product.

Equipment to be added under this application - Please check all applicable

	_	_
e t		
Other (please describe)		
Pneumatic conveying system		·
6. Other	× = _	8
5. Liquid waste flare		
4. Gaseous waste flare		
3. Wood or other waste fuel recovery boiler		
2. Liquid waste incinerator		2
l. Solid waste incinerator		
Waste disposal systems	e a	
3. Other Methanol Condenser (surface type)		
2. Activated carbon bed		
l. Water scrubber		
Gaseous emissions control equipment		
4. Electrostatic Precipitator	8. Other	×
3. Baghouse	7. Cyclonic Scrubber	
2. Water Scrubber	6. Cyclonic Baghouse	
I. Cyclone(s)	5. Venturi Scrubber	
Particulate emissions control equipment		
, it is a constitution of the state of the s		

New Installation			
Existing equipment to be	alteredX		
Existing equipment to be	moved to new location		
Construction or installatio	on not yet started X		
Estimated starting date	2/76		
Estimated completion date	e7/77		
Operating Schedule			
	Hours per day	Days per week	Weeks per year
Normal	24	7	52
Seasonal or	Hours per day	Days per week	Weeks per year
peak operation period	24	7	52
Permit status - list all curr	rent permits - From the Air sion held by this facility.	Division or Water Division	of the Mississippi Air and
Air or Water Division	Type of Permit	Permit Number	Expiration Date
	Type of Permit Operate	Permit Number 0800-00001-001 thru 008*	Expiration Date
Air or Water Division		0800-00001-001	
Air or Water Division Air	Operate	0800-00001-001 thru 008*	2/6/77
Air or Water Division Air Air	Operate Tolerance	0800-00001-001 thru 008* 009 thru 010	2/6/77 7/31/75

-IMPORTANT-

PLANT INPUT WEIGHT - It is imperative that an accurate plant input weight be determined for the facility for which this application is being made. Plant input weight is the total of the process input weight of the individual processes in the plant. Process as an inseparable part of the product weight of all materials introduced into an individual process as an inseparable part of the production of the finished product. This includes solid fuels, water, raw materials, catalysts, surface coatings and process chemicals. This does not include final product packaging materials, liquids and gases used solely as fuels, air introduced for purposes of combustion and other substances not classified as being part of the process weight.

Please list below the name of each individual process that takes place in the plant, the input materials to each process, and the process input weights of each material in pounds/per hour.

11

796	Total Plant Input Weight	
	٠	
		X
27.8	Base	
069	Methyl Ester	P-567 Production
E00		
Input Weight (lbs. per hr.)	IsinətsM tuqul	Name of Process

ADDITIONAL INFORMATION

The following additional information must be submitted. Failure to submit any of the additional information or to conform to the instructions will result in initial denial of the application.

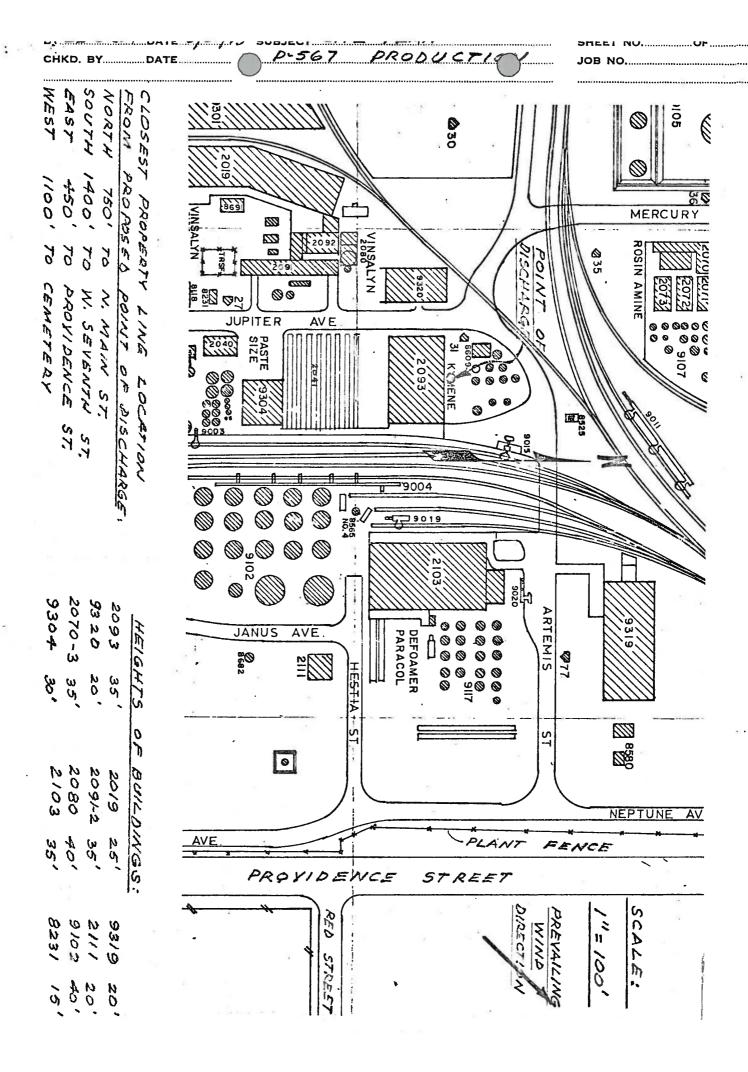
- 1. Site Plan The drawing or sketch submitted must be to scale and show at least the following:
 - A. The property involved and outlines and heights of all b !dings on it. Identify property lines plainly.
 - B. Location and identification of all existing or proposed points of discharge of air contaminant to the atmosphere.
 - C. Location of streets and all adjacent properties. Show location of all buildings outside the property that are within 150 feet of the equipment involved in the application. Identify all such buildings (as a residence, apartment, warehouse, etc.), specifying number of stories. Indicate north, and prevailing wind direction.
- II. Drawings of Equipment (See Note Below) Supply an assembly drawing, dimensioned and to scale, in plan, elevation and as many sections as are needed to show clearly the design and operation of the equipment and the means by which air contaminants are controlled. The following must be shown:
 - A. Size and shape of equipment. Show exterior and interior dimensions and features.
 - B. Locations, sizes, and shape details of all features which may affect the production, collection, conveying or control of air contaminants of any kind; location, size and shape details concerning all materials handling equipment.
 - C. All data and calculations used in selecting or designing the equipment.
 - D. Horsepower rating of all motors driving the equipment.

NOTE. Structural design calculations and details are not required.

ADDITIONAL INFORMATION MAY BE REQUIRED.

III. Description of Process and Control Equipment - The application must be accompanied by two copies of a written description of each process to be carried out in the facility and the function of the equipment used in the process. The descriptions must be complete and particular attention must be given to explaining all stages in the process where the discharge of any materials might contribute in any way to air pollution. Control procedures must be described insufficient detail to show the extent of control of air contaminants anticipated in the design, specifying the expected efficiency of the control devices. All obtainable data must be supplied concerning the nature, volumes, particle size, weights, chemical composition and concentrations of all types of air contaminants.

iqqississiM ni bərətsigər Seal of Engineer registration number Typed name Typed name and Mississippi F. H. Gardner, Jr. E. K. Lane, Reg. No. 3355 registered in Mississippi responsibility for this application Signature of engineer Signature of person accepting company who accepts the responsibility for the application. engineer registered in the State of Mississippi, and signed by a duly authorized legal representative of the SIGNATURES: The application must be submitted in duplicate and both copies signed and stamped by an showing control devices. equipment drawings. of the process or operation IV. Two copies of a flow diagram Two copies of detailed .II and control equipment. explanation of the process site plot plan. III. Two copies of a detailed Two copies of construction I. ADDITIONAL INFORMATION registered in the State of Mississippi. The application form, site plan, and equipment drawings must be signed and stamped by an engineer **NOLE:** process and any control devices must be supplied. IV. Two copies of a block flow diagram showing the steps of the process and the flow of materials through the



DETAILED EQUIPMENT DRAWINGS

Detailed drawings of equipment have not been prepared as yet (awaiting approval of this appropriation request by Company management).

A scale drawing of the proposed equipment arrangement is attached.

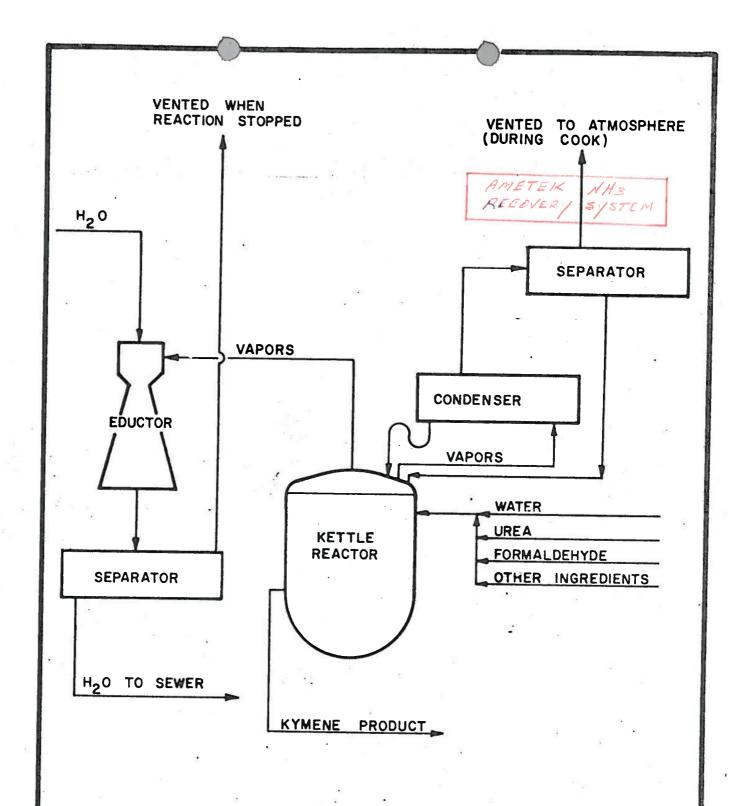
Data and calculations for sizing the methanol condenser are based on scaling up a pilot plant operation at another location. 11.15

III. DESCRIPTION OF PROCESS AND CONTROL EQUIPMENT

Measured quantities of the methyl ester and base are added to a closed reactor and heat is applied.

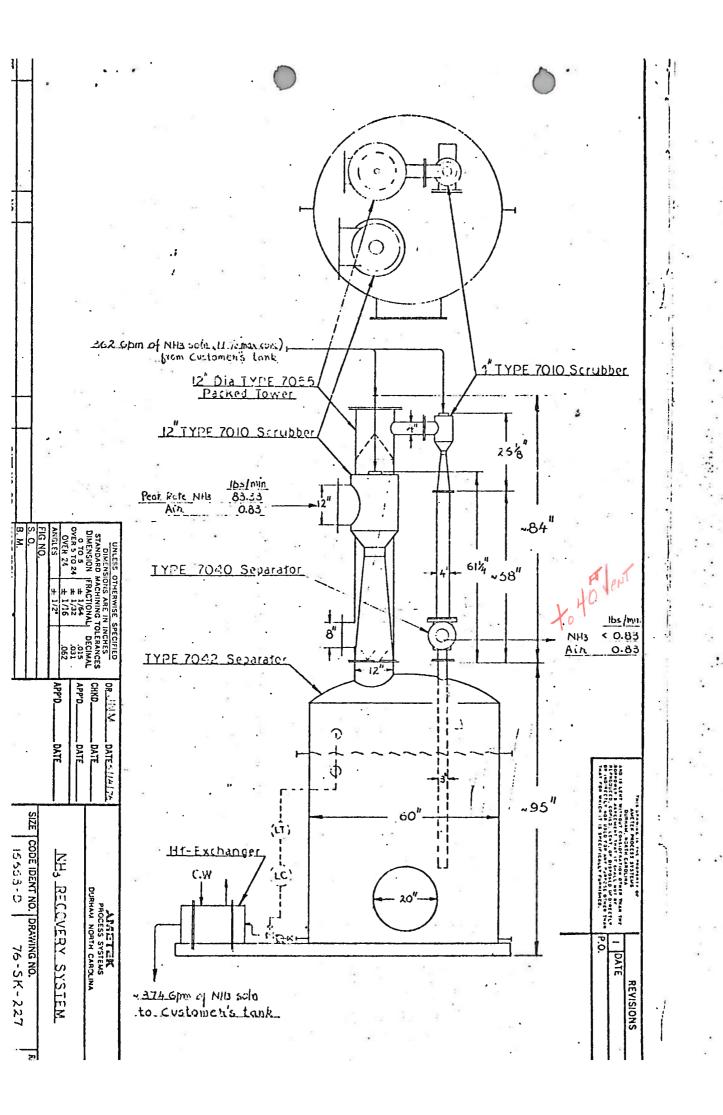
When the chemical reaction starts, the by-product methanol begins boiling off. Piping conducts the methanol vapor to a service water cooled surface condenser, where the vapor is cooled, condensed, and piped to a storage tank.

The surface condenser is expected to be 99% efficient in recovering the methanol, resulting in a discharge of 3 lb./hr. average rate of methanol vapor, based on pilot plant data.

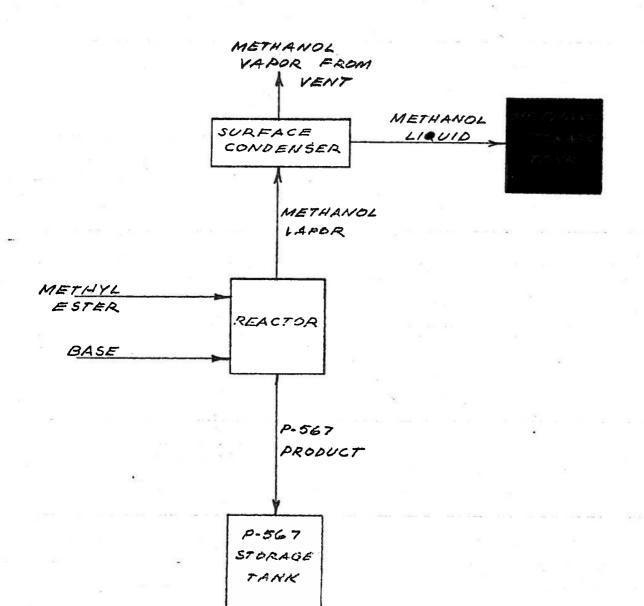


HERCULES INCORPORATED HATTIESBURG, MISSISSIPPI KYMENE PROCESS

CLARK, DIETZ AND ASSOCIATES - ENGINEERS, INC. JACKSON, MISSISSIPPI - URBANA, ILLINOIS



BY 44 CKOY DATE 2/17/1	5 SUBJECT CLUCK	FLOW	SHEET NOOF
CHKD. BY DATE	DIAGRAM -	P-56	JOB NO
	DODALLET	1011	



INSPECTION ACTION INFORMATION ***

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 394 HATTIESBURG MS 39401 STILLS & DRESINATES FACIL

601 5846411 CHARLES JORDAN MIKE KENNEDY TELEPHONE CONTACT ENGINEER

AGCY COUNTY SOURCE EM. PT. ACTION CODE CODE NUM NUM NUM (1-3) (4-7) (8-12) (13-15) (16-17) CARD ACTION TYPE TYPE ACTION DESCRIPTION (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 023 02 7 16 18-MONTH INSPECTION

DATE PERFORMED (MO/DAY/YR) (54-59)

4

5

6 7

8

8

.....

COMPLETED ACTION RESULTS (69-70)

HOURS TAKEN TO COMPLETE (71-72) UPDATE CODE (80)

C

N

N

SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

****	****	******	FOR ENGINEERING USE ONLY **********	*****
NEXT- NUMBE (16-1		CARD NEXT-ACTION TYPE DATE (MO/E) (18) (60-65)		CODE
XX		7		N
		******	ENGINEERING COMMENTS *********	
CARD TYPE (18) 8	LINE NUMBER (19)	COMMENTS (20-54)		UPDATE CODE (80) N
8	2			N
8	3			N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED 08/06/75
COMPANY NAME HERCULES INC OF HATT
ADDRESS WEST 7TH STREET
CITY-STATE-ZIP HATTIESBURG MS 39401
RESIN 731 UNIT

8

8

5

6 7 TELEPHONE 601 5846411
CONTACT CHARLES JORDAN
ENGINEER MIKE KENNEDY

AGCY COUNTY SOURCE EM. PT. ACTION CARD ACTION ACTION CODE CODE NUM NUM NUM TYPE TYPE DESCRIPTION (1-3) (4-7) (8-12) (13-15) (16-17) (18) (52-53)

110 0800 00001 022 02 7 16 18-1

110 0800 00001 022 02 7 16 18-MONTH INSPECTION

DATE PERFORMED COMPLETED ACTION HOURS TAKEN (MO/DAY/YR) RESULTS TO COMPLETE (71-72)

UPDATE CODE (80)

C

N

N

SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

FOR ENGINEERING USE ONLY ********* ******* NEXT-ACTION HRS TO TYPE (73-74) (75-76) LETTER CODE STAFF MEMBER UPDATE NEXT-ACTION CARD NUMBER TYPE (16-17) (18) NEXT-ACTION DATE (MO/DAY/YR) (60-65) CODE (66-68) (73-74) (80) XX 7 N ENGINEERING COMMENTS ****** CARD **UPDATE** LINE NUMBER COMMENTS CODE (18)(19)(20-54)(80) 8 -1 8 2 N 3 8 N 4 N

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE: March 22, 1976

SUBJECT: 18-Month Inspection - Hercules, Inc.

PERSON REPORTING: Judy Linskey

Jours of T

Famoo.



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

July 14, 1975



JUL 1 7 1875

AIR C WATER POLLUTION CONTROL COMMISSION

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

Attn: 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 through June 30, 1975. We will continue to submit the required documentation on a semi-annual basis.

Very truly yours,

HERCULES INCORPORATED

By:

Charles S. Jordan

Senior Chemical Engineer

CSJ:p

Attachment

,	Type Vent		No-flow	No-flow	No-flow	No-flow	No-flow		H ₂ Purge	H ₂ Purge	No-flow		No-flow		
Assessment of Emissions	Control Equipment		Total Condenser	Total Condenser	Total Condenser	Total Condenser	Total Condenser		Soda Ash Soln. Neutralization	None	Barometric Condensers		Barometric Condensers		
	Potential Emissions		Water of Reaction	Mineral Spirits	Nîl	Nil	Nil		Hydrogen H ₂ S	Hydrogen	Nil		para-Menthane		
Type	Products Produced		Amîde	Resin	Resin Blend	Resin Blend	Resin Blend		Desulfurized- Hydrogenated Resin	Hydrogenated Resin	Distilled Resin		Resin		
Raw	Materials Used		Stearic Acid Ethylene Diamine Silicone Oil	Resîn Mîneral Spîrîts	Resins	Resins	Resins		Resin Para-Menthane Hydrogen	Rosin Hydrogen	Rosin		Resin para-Menthane		
Duration	of tests (Days)		50 I	7	α	Н	Н		123	84	6				
Experimental	Equipment Name	Kettle	(A)	(B)	(Ω)	(D)	(E)	Reactors	(A)	(B) Still	(A)	Evaporator	(A)		

File



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

January 9, 1975

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

Attn: 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 through December 31, 1974. We will continue to submit the required documentation on a semi-annual basis.

Very truly yours,

HERCULES INCORPORATED

By:

Charles S. Jordan

Senior Chemical Engineer

CSJ:p Attachment

AID O Taylor

CONTROL CONTROL

				1								1
	Type Vent		No-flow	No-flow	No-flow	No-flow	No-flow		H ₂ Purge	H ₂ Pyrge		No-flow
Assessment of Emissions	Control Equipment		Total Condenser	Total Condenser	Total Condenser	Total Condenser	Total Condenser		Soda Ash Soln. Neutralization	None		Barometric Condensers
Asses	Potential Emissions		Water of Reaction	Mineral Spirits	Nil	Nil	Nil		Hydrogen H ₂ S	Hydrogen		Nil
Type	Products Produced		Amide	Resin	Resin Blend	Resin Blend	Resin Blend		Desulfurized- Hydrogenated Resin	Hydrogenated Resin		Distilled Resin
Raw	Materials Used		Stearic Acid Ethylene Diamine Silicone Oil	Resin Mineral Spirits	Resins	Resins	Resins		Resin para-Menthane Hydrogen	Rosin Hydrogen		Rosin
Duration	of tests (Days)		61	19	α	н	н		83	38		29
Experimental	Equipment Name	Kettle	(A)	(B)	(c)	(D)	(王)	Reactors	(A)	(B)	Still	(A)

*** INSPECTION ACTION INFORMATION ***

08/06/75 HERCULES INC OF HATT WEST 7TH STREET HATTIESBURG MS 394 PILOT PLANT DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP MS 39401 DESCRIPTION

TELEPHONE CONTACT 601 5846411 CHARLES JORDAN MIKE KENNEDY

7

AGCY COUNTY SOURCE EM. PT. ACTION CODE CODE NUM NUM NUM (1-3) (4-7) (8-12) (13-15) (16-17) CARD ACTION TYPE TYPE ACTION DESCRIPTION

(8-12) (13-15) (16-17) (18) (52-53)

110 00001 18-MONTH INSPECTION 0800 7 021 03 16

DATE PERFORMED (MO/DAY/YR) (54-59) COMPLETED ACTION HOURS TAKEN TO COMPLETE (71-72) RESULTS (69-70)

UPDATE CODE (80)

N

C

SOUTH-INSPECTION TO BE MADE BY A MAIN OFFICE ENGINEER-CHECK FILE FOR PAST REPORTS ON EXPERIMENTAL WORK 123

* * **	*****	*****	FOR ENGINEERIN	NG USE ONLY	*****	*****	*****
NEXT- NUMBE (16-1		CARD NEXT-ACTION TYPE DATE (MO/DAY (18) (60-65)	Y/YR) MEMBER	NEXT-ACTION TYPE (73-74)	COMPLETE	LETTER CODE (77-78)	UPDATE CODE (80)
XX		7					Ν
		*****	ENGINEERING CO	DMMENTS ***	*****	* *	
CARD TYPE (18) 8	LINE NUMBER (19)	COMMENTS (20-54)	0 =	4			UPDATE CODE (80) N
8	2			***********			N
8	3						N
8	4						N
8	5			NEW 75			N
8	6						N

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

INSPECTION ACTION INFORMATION

DATE SCHEDULED COMPANY NAME ADDRESS CITY-STATE-ZIP DESCRIPTION 08/06/75
HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 394 MS 39401 HYDROGEN FURNACE

....

7

601 5846411 CHARLES JORDAN MIKE KENNEDY **TELEPHONE** CONTACT ENGINEER

AGCY COUNTY CODE CODE (1-3) (4-7) CARD ACTION TYPE TYPE (18) (52-53) AGC Y CODE ACTION DESCRIPTION SOURCE EM. PT. ACTION NUM NUM (8-12) (13-15) (16-17)

7 18-MONTH INSPECTION 020 02 16 110 0800 00001

COMPLETED ACTION RESULTS (69-70) HOURS TAKEN DATE PERFORMED (MO/DAY/YR) (54-59) TO COMPLETE (71-72)

UPDATE CODE (80)

C

SOUTH-INSPECTION TO BE MADE BY MAIN OFFICE ENGINEER

******* FOR ENGINEERING USE ONLY k****** NEXT-ACTION HRS TO LETTER COMPLETE CODE (73-74) (75-76) (77-78 NEXT-ACTION DATE (MO/DAY/YR) (60-65) UPDATE STAFF NEXT-ACTION CARD CODE (66-68) (73-74) (80) (18)(16 - 17)N 7 XX ***** ENGINEERING COMMENTS ***** **UPDATE** CARD LINE NUMBER CODE COMMENTS (80) (18)(19)(20-54)8 N 8 2 N 8 3 N 8 4 N 5 8 N 8 6

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

REPORT OF FIELD INVESTIGATION

DATE:	March 22, 1976
SUBJECT:	18-Month Inspection - Hercules, Inc.
PERSON RE	PORTING: Judy Linskey

General report is in entire source file.

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That
Hercules, Incorporated
Hattiesburg Plant
West 7th Street
Hattiesburg Mississin

Hattiesburg, Mississippi has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Hydrogen Furnace

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.

Pollution Control Act, (adopted and promulgated	Mississippi Laws, 1966, ch. 258) I thereunder.	and the regulations or standards
Issued this 6th	day ofFebruary	, 19 <u>74</u> .
	AIR AND WATER POLLU	TION CONTROL DOMMISSION
	Exec	utive Director
Expires 6th	day of <u>February</u>	, 19 <u>77</u> .
Facility No0800-00	1001-020	

MPC FORM

200

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AOCR:	

#20 He Plant

- 5

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of	Source			D	ate Submitted
2. Mailing Ad	ddress		County	(L	Location JTM or LAT-Long)
		*			'
3. City		State	Zip	Code	Telephone
×	*				
4. Name of Po	erson Complet	ing Form		Tit	le
5. Person to	Contact on A	ir Pollut	ion Matters		
<u></u>			2		0
	Title		al .	Tele	phone
	Title		e)	Tele	
6. Major Act	-			Tele	
SIC number	ivity	ng <u> </u>	Office		
SIC number	ivity uring or Processi		Office	h	phone
SIC number Manufactu Retail o	ivity uring or Processi		Office	tel F	Phone Varehouse
SIC number Manufactu Retail o	ivity uring or Processi by Wholesale S	Store []	Office Hotel or Mo	tel F	phone Varehouse Residential or Apt

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.

information may be obtained.)

- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.
 Specify tons per year of each of the listed pollutants emitted per year.
 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)
 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

				ĺ		1		l		1							
		Percent Ash	2			1											
ONLY)			0.80016														
(FOR AGENCY USE ONLY)	Fuel Data	How Coursess RTU Gel, etc. (Specify Units)	1025 (SOF)														
	Fu		36.458 mer										1	1	ī	ì	ī
FORM B PAGE 2			4.2 mer						·			Supplier					
FORM			E. E.														
		Exit Gas Temperature Degree F.										ed.					
	Stack Parameters	Exit Gas Velocity Feet/Sec.										Fuel Type					
	Stack P.	Inside Exit Dia. Feet	2.0									IERS:					
		Stack Height Feet	09									FUEL SUPPLIERS:					
-		Reference Number	/														

		FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	SQUIPMENT isposal)			Page 1
	Company Name		Address			for Agency use Only	nly
				E			
0	Operating Schedule	Information fo	Information for Calender Year	Date	16		
and	Hours / Day Days / Week Weeks / Year	19	17			¥.	
2	8		4	2	9	7	
Reference	Manufacturer and Mobel Number	umber	Rated Capacity 10 ⁶ BTU/hr >	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Fotary Cup Oil	re of Air) hanical)		2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp 3. Air Heating for 8 4. Air Heating for 5 5. Others (specify)	USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

CALC. Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 0.803 Particulate 0 Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number F

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

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FORM C MANUFACTURING PROCESS OPERATIONS

		Product Output* Ouantity Ouantity Per Hour	
	2	Number of Emission Points To Air	
	Case	Feed Input Quantity Per Hour	4.5 mr 3.3 568 mr 4.5 mr 645 Mr. 645
Address	Calendar Tear	Rated Process Capacity Tens/Heur	
	19 7/	Name	Town Laws
Company Name	24 Hours / Days 365 Days / Year	Process or Unit Operation Name	Hypaven Fasnave or F
	24 Hou	Reference Number	

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number Exit Gas Temperature 0F Stack Data
Exit Gas
Velocity
Feet/Sec. Inside Unit Dia. Feet Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)

	12							
	Process Emissions*			(Agency Coments Only)				
Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation					
None DETECTED	0.003 Tous/yR		CASE.					
	,							
				16 6 -				
		100						
				,				
	Particulates	Particulates Sulfur Oxides	Particulates Sulfur Oxides Composition Name Detectes O. 003 Tous/ys	Particulates Sulfur Oxides Others (Specify by chemical composition) Name Detected O. 2003 Tous/ye Case.				

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Belng Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

4

Company Name	ате	4	Information for Year		(Agency Use Only)
				=	6
Address			Date		
		(A)		1.	
B Description of Waste Materials	S		٥		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	unt Is)	Amount Per Year (Tons)	·	1* Method of Disposal
None					
f Waste Disposal is by Incineration, Specify the Following:	ify the Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)	ļ	Rotary Flue Fed		
2. Manufacturer's Name: Model Number					
Rated Capacity 3. Quantity Burned:	Pounds / Hou	Pounds / Hour Pounds / Dav	γ	Type Waste	
4. Operating Schedule	Tons / Year Hours / Dav	Year / Dav			
	Days / Year	Year		*1 Disposal Method Codes	od Codes
					5. Burned in Boiler or Furnance
			 Landfill (No Burning) Incinerator (Complete rest of Form) 	est of Form)	6. Other (Specify)
			4. Conical Burner (TeePee)		

FORM D PAGE 2

(AGENCY USE ONLY)	
*	

5.	Auxiliary Fuel:	Туре		
		Amount/Year (Specify Units)	1	
		Heat Content	- n 1	
		Percent Sulfur	18	h
		Percent Ash	6.2	
		Supplier's Name		
6.	Pollution Control Equipment:	Manufacturer		
υ,	rottacton control Equipment.	Model Number		
		% Efficiency		
		Туре		
		GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	Height		Feet
		Inside Exit Diameter		Feet
		Exit Gas Velocity		Feet/Sec.
		Exit Gas Volume		SCFM
		Exit Gas Temp.		°F.
8.	Estimated Emissions From Refu	se Incineration:		
	Name:		Basis of Estimates:	
	Particulates _	Tons/Year		
	Sulfur Oxides	II		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones
32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles
41 spray chamber — with baffles
42 wet cyclones — rotoclone
43 wet dynamic precipitator
44 venturi scrubber
45 spray tower (not absorption —

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION /

÷	This Space For Use By Approving Agency	<i>i</i>
Date Received:		
Facility No.:		
AQCR:		

#27 Fred 19 0

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Source				1	Date Submitte
2. Mailing Address		Cou	nty	(Location UTM or LAT-L
1		3			
3. City	State		Zip Code		Teleph
g.					
4. Name of Person	Completing Form		á.	Ti	tle
12:					
5. Person to Conta	ct on Air Pollut	ion Mat	ters	1	
Tit	le	14		Tel	ephone
Tit	ile			Tel	ephone
Tit	le			Tel	ephone
		Office		Te1	ephone Warehouse
6. Major Activity SIC number Manufacturing or					Warehouse
6. Major Activity SIC number Manufacturing or	Processing [Hotel			Warehouse Residential
6. Major Activity SIC number Manufacturing or Retail or Who	Processing [Hotel Hospit	or Motel al or Lab		Warehouse Residential

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- Stack Parameters. Stack Height in feet from ground. Stack Inside Exit Diameter in feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.) Exit Gas Temperature in degrees F.
- 10. Fuel Data. Coal, Gas, #2 Oil, #6 Oil, etc. Fuel Type. Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify. Average Percent Sulfur Content. Average Percent Ash Content. (If percent sulfur and percent ash are not known, list fuel type

and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

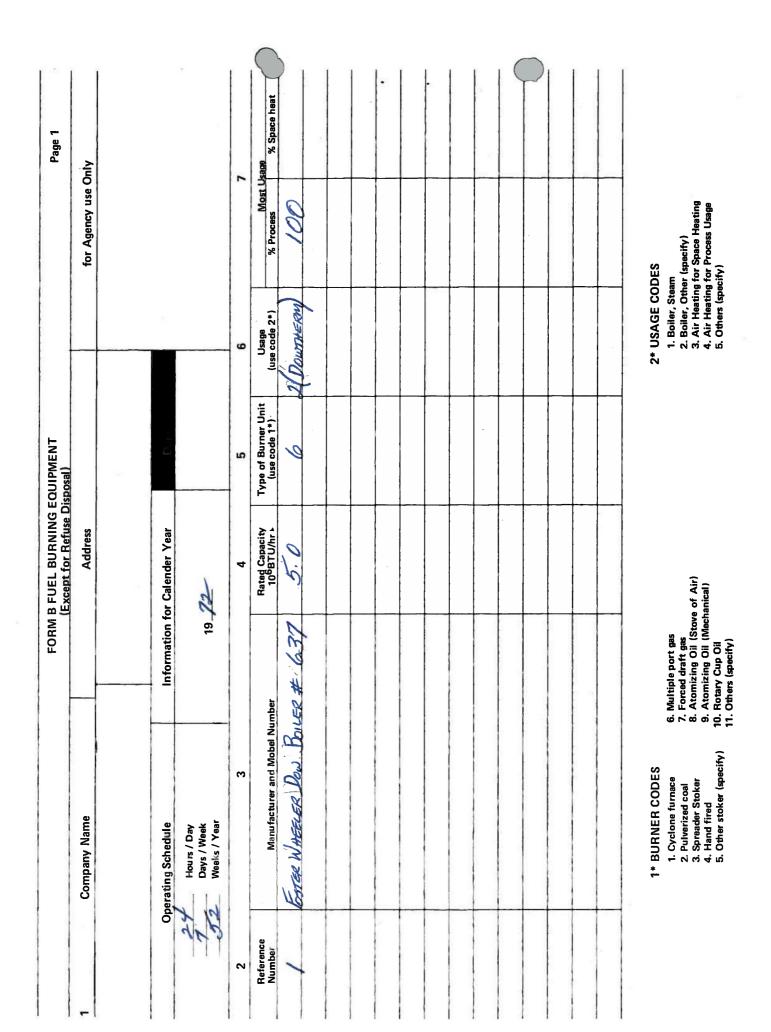
 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).



	1.1	ſ	ī		I .	ı	ı.	I	i		. 1							
		Percent Ash	•															
ONLY)		Percens	0.00016							·								
(FOR AGENCY USE ONLY)	Fuel Data		1025 (SEF)															
	Fu		TO WEE					20						11	ŀ	1	1	ı
FORM B PAGE 2			H.g. mer									Supplier						
FORM			NAT. GAS												İ			
		Exit Gas Temperature Degree F.										уре						
	Stack Parameters	Exit Gas Velocity Feet/Sec.										Fuel Type						
	Stack P	Inside Exit Dia. Feet	1.0									IERS:						
		Stack Height Feet	20									FUEL SUPPLIERS:						
		Reference Number	/															

FORM B PAGE 3

(FOR AGENCY USE ONLY)

	Basis	Estimate	CANC						
		ear) Other (specify)							
э		So ₂ (sear)	0.903						
		Particulate	0						
		Efficiency gn Actual							
		Effic Design							
	ument	Type* (Use Table 1)							
12	Air Pollution Control Equipment	Manufacturer and Model Number	Nowe						
11	Reference	Number	/						

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

	Date	
Address	Information for Calendar Year	19 72
Company Name	Operating Schedule	Hours / Days 265 Days / Year

		0	1	1	1	(6 1	i li	1		Ē
Output*	Quantity Per Year	1.850										
Product	Quantity Quant Per Hour Per Y	0.22										
Number of	Emission Points To Air	/										
Input	Quantity Per Year	0581										
Feed Input	Quantity Per Hour	0.22	i									
Rated Process	Capacity Tons/Hour	0.30										
	Process or Unit Operation Name	Resin 1977 or Rosin Honne Trans										
	Reference Number											

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Number Height Unit Dia. Faet/Sec. Temperature Manufacturer and Model Number 1.0		- 1	Stack Data		Air Poll	Air Pollution Control Equipment	ıt	
Feet Feet/Sec. OF	Height	Inside Unit Dia.	Exit Gas Velocity	Exit Gas Temperature		Tvpe*	Collection Efficiency	Efficiency
	1	Feet	Feet/Sec.	ЭĠ		(use Table 1)	Design	Actual
	0.1				Nove		8	
		s)						

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

		1
,		

	FORM C PAGE 3	(FOR AGENCY USE ONLY)
11	12	

11	1:	2			
Reference Nu mber		Process Emissions*	Others	Basis for	
Manne	Particulates	Sulfur Oxides	(Specify by chemical composition)	Estimation	(Agency Comments Only)
	NOW DETECTED	N. D.	30 CFM (HYDROGEN)	MEHULEO	
		.,,,,			

		~			

					7. 10-12-0

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

A				
Company Name		Infe	Information for Year	(Agency Use Only)
Address			Date	
	1			**
B Description of Waste Materials	၁	2	Q	ш
Type (Describe)	Maximum Amount Per Day (Pounds)	int s)	Amount Per Year (Tons)	1* Method of Disposal
NONE				
	1			
If Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modif	he Following: single chamber multiple Chamber Modified (describe)	70 80	Rotary Flue Fed	
2. Manufacturer's Name:				
Rated Capacity 3. Quantity Burned:	Pounds / Hounds / Day Tons / Year	Pounds / Hour Pounds / Day Tons / Year	Тур	Type Waste
	Days / Year	Year	*1 Disposal N 1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form)	*1 Disposal Method Codes 5. Burned in Boiler or Furnance 6. Other (Specify)
			4. COINCAI DAILIGI 11 GGI GG1	

FORM D PAGE 2

(AGENCY USE ONLY)	

Amount/Year (Specify Units) Heat Content Percent Sulfur Percent Ash Supplier's Name 6. Pollution Control Equipment: Manufacturer Model Number % Efficiency Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Exit Gas Velocity Feet/3 Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year Sulfur Oxides "		1.00				
Heat Content Percent Sulfur Percent Ash Supplier's Name 6. Pollution Control Equipment: Manufacturer Model Number % Efficiency Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year	5.	Auxiliary	/ Fuel:	Туре		
Heat Content Percent Sulfur Percent Ash Supplier's Name 6. Pollution Control Equipment: Manufacturer Model Number % Efficiency Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year			u s	Amount/Year (Specify Units)	
Percent Ash Supplier's Name 6. Pollution Control Equipment: Manufacturer Model Number * Efficiency Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year				Heat Content		
Supplier's Name 6. Pollution Control Equipment: Manufacturer Model Number % Efficiency Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year				Percent Sulfur	v	8
6. Pollution Control Equipment: Manufacturer Model Number # Efficiency Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year				Percent Ash		, II
6. Pollution Control Equipment: Manufacturer Model Number # Efficiency Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year			*	Supplier's Name		
Model Number	6.	Pollution		• •		B
Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year				•		K.
Type GPM Water Flow (If Wet Scrubber) 7. Stack Data: Height Feet Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year				% Efficiency		
GPM Water Flow (If Wet Scrubber)				•		
Inside Exit Diameter Feet Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. OF. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year				GPM Water Flow		
Exit Gas Velocity Feet/S Exit Gas Volume SCFM Exit Gas Temp. OF. 8. Estimated Emissions From Refuse Incineration: Name: Basis of Estimates: Particulates Tons/Year	7.	Stack Data:		Height	ű.	_ Feet
Exit Gas Volume Exit Gas Temp. SCFM Exit Gas Temp. OF. 8. Estimated Emissions From Refuse Incineration: Name: Particulates Tons/Year				Inside Exit Diameter		Feet
Exit Gas Temp. 8. Estimated Emissions From Refuse Incineration: Name: Particulates Tons/Year				Exit Gas Velocity		Feet/Sec.
8. Estimated Emissions From Refuse Incineration: Name: Particulates Tons/Year				Exit Gas Volume		SCFM
Name: Basis of Estimates: Particulates Tons/Year				Exit Gas Temp.	0	o _F .
Particulates Tons/Year	8.	Estimated	Emissions From Refus	e Incineration:		
			Name:		Basis of Estimates:	
Sulfur Oxides		4	Particulates	Tons/Year		
			Sulfur Oxides	II	7	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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

operation of the plant or process Resin Amine D (R.A.D.) 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.	6th	day of February, 197	74 .
		AIR AND WATER POLLUTION CONT	ROLCOMMISSION
		Executive Director	0
Expires	6th	day of February, 197	<u>'7</u> .
Facility No.	0800-0000	1-026	
MD0 500M	ADDITIONAL	CONDITION IS ATTACHED	685



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-026

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

456

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	 	
Facility No.:		 _
AOCR:		

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

FORM A GENERAL INFORMATION								
1. Owner of Source			D	ate Submitt	ed			
2. Mailing Address		County	((Location JTM or LAT-L	ong)			
				4				
3. City	State	Zip	Code	Teleph	one			
								
4. Name of Person Completing Form Title								
5. Person to Contact on Air Pollution Matters								
Title Telephone								
					=			
6. Major Activity								
SIC number		Office		Warehouse				
Retail or Whol	esale Store 📘	Hotel or M	otel 📙 F	Residential	or Apts			
School or Chur	ch 🗀	Hospital o	r Lab 🔲 (Other (Attach Exp	anation)			
7. Signature of Ow	ner or Authorize	ed Company O	fficial	Date				
Type or Print Name	of Signer		Ti	tle				

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT Disposal)			Page 1
	Company Name		Address			for Agency use Only	Only
							15
	Operating Schedule	Information fo	Information for Calender Year	Date	15		
apri	Hours / Day Days / Week Weeks / Year	19	19 72				
2	3		4	2	9		7
Reference Number	Manufacturer and Mobel Number	umber	Rated Capacity 10 ⁶ BTU/hr t	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	Sage % Space heat
		Date & Aprila			- (Ewinesm)		
	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	of Air) nical)		2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp 3. Air Heating for S 4. Air Heating for S 5. Others (specify)	* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

		Percent Ash	0			•		•											
NLY)		Percent Pe Sulfur	2000/6																
(FOR AGENCY USE ONLY)	Data	Heat Content BTU/Gal, etc. (Specify Units)	1025 (SEF)				Ca Times												
E .	Fuel Data	Amount Per Year (Specify Units)	57.300 MGF									•	1			I	Î	1	
PAGE 2		Maximum Amount Per Hour (Specify Units)	,,								Supplier								The second secon
FORM B PAGE 2		Fuel Type	NAT. GAS																
		Exit Gas Temperature Degree F.									fype								
	Stack Parameters	Estrology Velocing Pear Sec.									Fuel Type								
	Stack F	Inside Exit Dia. Feet	1.5								LIERS:			1			1	1	
		Stack Height Feet	35								FUEL SUPPLIERS:								
		Reference Number	/																

FORM B PAGE 3

(FOR AGENCY USE ONLY)

	Basis	of Fetimate		CALC.	(٥					
		aar)	Other (specify)									
		Emissions (Tons/Year)	So2	0,005								
		En	Particulate	0								
		ency	Actual									
		Efficiency	Design									
	ament	Type*	(Use Table 1)									
12	Air Pollution Control Equipment	Manufacturer and Model Number		Nonë				*				
11	Reference	Number		7								

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- 1. Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

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FOR

				Product Output*	Quantity Quantity Per Hour Per Year	32 2,819							,
				F	Emission Points Quan To Air Per Per	2 0.32							
		Date		1	Quantity Quantity Per Hour Per Year	0.32 3,819							
	Address	Information for Calendar Year	19 72	-	Rated Process Capacity Cons/Hour Per	0.40 0.							
		Information			ation Name	L ANT							
	Company Name	Operating Schedule	Hours / Days / Year		Process or Unit Operation Name	Fosin Homme F							
ja.			Jef Hou		Reference Number								

*Specify Units of Measure Used

FORM C PAGE 2

(FOR AGENCY USE ONLY)

	Collection Efficiency	Design Actual		
Air Pollution Control Equipment	Tvpe*	(use Table 1)	22	Nove
Air Pollu	Manufacturer and Model Number		Ammoniation Vent	Amine fearage VENT
	Exit Gas Temperature	ЭE	A.	1
Stack Data	Exit Gas Velocity	Feet/Sec.		
- 1	Inside Unit Dia.	Feet		
	Height	Feet	1.0	7.0
Reference	Number		4	18

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

_	OF	N A C	^	D	Λ	c	_	3
•	uje	CIVI	١.		-	v	_	-3

(FOR AGENCY USE ONLY)

11	12	!			
Reference Number	Particulates	Process Emissions* Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Comments Only)
18	Nove Deterred	ND.		MEASURED IN AREA	
18	//	".	20 CFM HYDROGEN	MERSURED	

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name		<u>-</u>	Information for Year		(Agency Use Only)
			a a		
Address			Date		
		a a			
B Description of Waste Materials	U		۵		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	int s)	Amount Per Year (Tons)	·	1* Method of Disposal
Nowe					
			2		
If Waste Disposal is by Incineration, Specify the Following:	the Following:				
1. Type of Incinerator:	single chamber multiple Chamber Nodified (describe)		Rotary Flue Fed		
2. Manufacturer's Name:					
Nodel Number Rated Capacity 3. Quantity Burned:	Pounds / Ho Pounds / Da Tons / Year	Pounds / Hour Pounds / Day Tons / Year	F	Type Waste	j° 2
4. Operating Schedule	Hours / Day Days / Year	/ Day Year		*1 Disposal Method Codes	od Codes
			1. Open Burning		5. Burned in Boiler or Furnance 6. Other (Specify)
			3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	rest of Form)	
				•	The same of the sa

FORM D PAGE 2

(A	GENCY USE ONLY)	

				
5.	Auxiliary	/ Fuel:	Туре	Al
			Amount/Year (Specify Units)	
			Heat Content	
			Percent Sulfur	
			Percent Ash	
			Supplier's Name	
6.	Pollution	Control Equipment:	Manufacturer	
			Model Number	
			% Efficiency	
			Туре	
			GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:		Height	Feet
			Inside Exit Diameter	_ Feet
			Exit Gas Velocity	_ Feet/Sec.
			Exit Gas Volume	_ SCFM
			Exit Gas Temp.	o _F .
8.	Estimated	Emissions From Refu	se Incineration:	
		Name:	Basis of Estimates:	
	1	Particulates _	Tons/Year	
		Sulfur Oxides	II .	

TABLE 1 **CODE NUMBERS FOR CONTROL DEVICES**

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group - Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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

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 the	ereunder.	1
Issued this 6th	_ day of <u>February</u>	, 19 <u>74</u> .
	AIR AND WATER POLLUTION	SONTROL COMMISSION
	Executive D	Director
Expires 6th	day ofFebruary	, 19
Facility No. <u>0800-000</u> 0	1-025	
		CQA ·



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box \$27 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AOCR:	

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

		FORM A GENE	ERAL	INFORMATION	0		
1.	Owner of Source				Da	ate Submitte	ed
							74.
2.	Mailing Address			County	(U	Location ITM or LAT-L	ong)
			122				
3.	City	State		Zip Code		Telepho	one
						a ,	
4.	Name of Person C	ompleting Form	j	e	Tit	le	
	4			Χ.			
5.	Person to Contac	t on Air Pollut	ion N	latters			
		ii					
	Titl	е	j		Tele	phone	
						189	
6.	Major Activity						
sıc	number		0ff	ice]	□ w	arehouse	
	Retail or Whole	esale Store 🔲	Hote	el or Motel	∏ R	esidential	or Apt
	School or Churc	ch 📋	Hos	pital or Lab j	<u></u> □ 0	ther (Attach Expl	anation)
7.	Signature of Own	ner or Authorize	d Co	mpany Officia	1	Date	<u></u>
							-

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.
 Manufacturer and Model Number. Information from nameplate.
 Type. Use Table 1, Page 16. If a wet scrubber, specify
 gallons per minute of water flow and water pressure if known.
 Efficiency. Percent design control on pollutants and actual
 percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Page 1	for Agency use Only	4		7 6	ner Unit Usage Most Usage % Space heat % Space heat	001 (3448)	2* USAGE CODES 1. Boiler, Steam	2. Boiler, Other (specify) 3. Air Heating for Space Heating
FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	Address	Information for Calender Vear		4 5	Rated Capacity Type of Burner Unit 106BTU/hr • (use code 1*)		6. Multiple port gas	7. Forced draft gas 8. Atomizing Oil (Stove of Air)
	Company Name	Operation Schodule	INTERMITTENT	m	Manufacturer and Mobel Number	URIER TURNALE	ES .	
			74	2	Reference Number		*	

Percent Ash (FOR AGENCY USE ONLY) Fuel Data Supplier FORM B PAGE 2 Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 **Particulate** Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number 7

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour <u>and</u> wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

	Date	
Address	Information for Calendar Year	19 72
Company Name	Operating Schedule	AH Hours / Days 365 Days / Year

		Rated Process	Feed	Feed Input	Number of	Product	Output*
Reference Number	Process or Unit Operation Name	Capacity Tons/Hour	Quantity Per Hour	Quantity Per Year	Emission Points To Air	Quantity Per Hour	Intity Quantity Hour Per Year
1	DEFOMER TLANT	0.18	0.16	14/98		0.16	1488
			•				
							•
3			-				

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) 33 Manufacturer and Model Number Exit Gas Temperature oF Stack Data
Exit Gas
Velocity
Feet/Sec. Inside Unit Dia. Feet Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FO	RM C PAGE 3		(FOR AGENC	Y USE ONLY)
12	!			
Particulates	Process Emissions* Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
NOWE DETECTED	N. D.		MEGULED IN AREA	
	Particulates	Process Emissions* Particulates Sulfur Oxides	Process Emissions* Others (Specify by chemical composition)	Process Emissions* Others Sulfur Oxides Others (Specify by chemical composition) Basis for Estimation MEXILED

	*				
	1				
	2				V
				,	
*Please Expr	ess Emissions as Tons per Y	ear and Pounds per Hour ar	nd Identify Units Being I	lsad	

Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

(Agency Use Only)			ш	fear Method of Disposal						Type Waste			*1 Disposal Method Codes	5. Burned in Boiler or Furnance		3. Incinerator (Complete rest of Form)
Information for Year	*	Date	٥	t Amount Per Year (Tons)				Rotary □ Flue Fed □		Hour	Day	Jay	ear	1. Open Burning	2. Landfill (No Burning)	3. Incinerator (Co
Company Name		Address	v	Maximum Amount Per Day (Pounds)			Specify the Following:	single chamber multiple Chamber Modified (describe)		Pounds / Hour	Pounds / Day	Hours / Day	Days / Year			
Compan		Adı	B Description of Waste Materials	Type (Describe)	NONE		f Waste Disposal is by Incineration, Specify the Following:	1. Type of Incinerator:	2. Manufacturer's Name:	Rated Capacity	3. Quantity Burned:	4. Operating Schedule				

FORM D PAGE 2

(AGENCY USE ONLY)	

5.	Auxiliary	Fuel:	Туре		
			Amount/Year (Specify Units)	la .	
			Heat Content		
			Percent Sulfur		
			Percent Ash		
			Supplier's Name		
6.	Pollution	Control Equipment:	Manufacturer		
			Model Number		
			% Efficiency	0. 9	
			Туре		
			GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:		Height		_ Feet
			Inside Exit Diameter		Feet
		*	Exit Gas Velocity		Feet/Sec.
			Exit Gas Volume		SCFM
			Exit Gas Temp.		°F.
8.	Estimated	Emissions From Refu	use Incineration:		
		Name:		Basis of Estimates:	
	٠.	Particulates _	Tons/Year	······································	
		Sulfur Oxides	II		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative

14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter —
Liquid Mist Control Equipment
30 Group — DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber 33 simple filters 34 baghouse (shaking) 35 baghouse (reverse jet) 36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers) 46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group -- Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Émissions 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.

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.

		Mississippi Lav I thereunder.	ws, 1966, ch. 258)	and the regulation	s or standards
Issued this_	6th	day of _	February	, 19	
		AIR AN	ID WATER POLLU	ITION CONTROL	COMMISSION
		 	Exe	cutive Director	0
Expires	6th_	day of	February	, 1977	
Facility No.	0800-00	001-024			
MPC FORM					683



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box \$27 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AOCR:	

+ 21 Kymose

12

_ 20

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FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

			ं	ate Submitte
1. Owner of Source				ate Submitte
2. Mailing Address		County	(1	Location UTM or LAT-L
				
3. City	State	Zip Code	9	Telepho
¥				
4. Name of Person	Completing Form		Tit	tle
ji			19	
5. Person to Conta	ct on Air Pollut	tion Matters		
		z.		
		A	т.1	ephone
Tit	le		iei	
	le		lei	
Tit	le		lei	
		Office	2	Warehouse
6. Major Activity SIC number Manufacturing or	Processing	Office Hotel or Motel		Warehouse
6. Major Activity SIC number Manufacturing or	Processing [Warehouse
6. Major Activity SIC number Manufacturing or Retail or Whol	Processing	Hotel or Motel		Warehouse Residential

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters. Stack Height in feet from ground. Stack Inside Exit Diameter in feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.) Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM	ORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT Sisposal)			Page 1
1	Company Name		Address			for Agency use Only	Only
							¥
O	Operating Schedule	Information fe	Information for Calender Year	Date			
	Hours / Day Days / Week Weeks / Year	19		la la			
2	3		4	S	9		7
Reference Number	Manufacturer and Mobel Number	umber	Rated Capacity 10 ⁶ BTU/hr t	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usane % Process	Jsane % Space heat
	NONE						
		6. Multiple port gas 7. Forced draft gas			2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify)	IDES am er (specify)	
	3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	e of Air) lanical)		3. Air Heatin 4. Air Heatin 5. Others (spe	3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

Percent Ash Percent Sulfur (FOR AGENCY USE ONLY) Heat Content BTU/Gal, etc. (Specify Units) Fuel Data Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) Supplier FORM B PAGE 2 Fuel Type Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number 1.1

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

Hours / Days / Year 19 722 Hours / Days / Year 19 722 Rated Process or Unit Operation Name Capacity Quantity Quantity Emission Points Quantity	t Output *	Produc Quantity	Number of Emission Points	Date Input Quantity	Feed Ouantity	Address or Calendar Year ZZ Rated Process Capacity		Days / Year	Company Nam Operating Schedule urs / Days	24 Ho
INCOLUMN TO THE PART OF THE PA		3.0	7	17333	2.0	7° C		June Jr Prost	Kimese	
Rated Process Process or Unit Operation Name Capacity Tons/Hour Per Hour Per Year To Air Per Per Year To Air Per Per Year To Air Per Per Per Year To Air Per Year To A	Output* Ouantity Per Year	Product Quantity Per Hour	Number of Emission Points To Air	Input Quantity Per Year	Feed Quantity Per Hour	Rated Process Capacity Tons/Hour	Name	ss or Unit Operation I	Proci	Reference Number
				Date		or Calendar Year	Information		Operating Schedule	
Operating Schedule Information for Calendar Year Date										
Information for Calendar Year						Address		g)	Company Nam	
Address Information for Calendar Year										

		Rated Process	Feed	Feed Input	Number of	Product	Product Qutput*
Reference Number	Process or Unit Operation Name	Capacity Tons/Hour	Quantity Per Hour	Quantity Per Year	Emission Points To Air	Quantity Per Hour	Quantity Per Year
_	KIMENE THANT	2.4	2.0	17.333	K	2.0	17,333
							•
							

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) 33 MATER ASPIRATOR TOE NETUE YEAT Manufacturer and Model Number Diest Concered Exit Gas Temperature oF Exit Gas Velocity Feet/Sec. Stack Data Inside Unit Dia. Feet Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

	_		
FORM	С	PAGE 3	3

(FOR AGENCY USE ONLY)

11	12	2			
Pafararas		Process Emissions*	Others	Basis	
Reference Number	Particulates Particulates	Sulfur Oxides	(Specify by chemical composition)	for Estimation	(Agency Corments Only)
		/ 5		MEASURED IN AREA	
/A	NONE DETECTED	N. D.		HREAD	
/ _B	H	//			
					
	-	·			
	-				
					6
				10	
					1

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

•	1				(vilad cell many)
Company Name	ne	Info	Information for Year		(Agency Use Only)
Address			Date		
	8				
B Description of Waste Materials	ပ		Q		
Type (Describe)	Maximum Amount Per Day (Pounds)	=_	Amount Per Year (Tons)	8	1* Method of Disposal
NONE		D	8		
	ž.				
					iā.
		1			
f Waste Disposal is by Incineration, Specify the Following:	y the Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)	8 -	Rotary Flue Fed		
2. Manufacturer's Name:					
Model Number Rated Capacity 3. Quantity Burned:	Pounds / Hour Pounds / Day Tons / Year	/ Hour / Day		Type Waste	
4. Operating Schedule	Hours / Day Days / Year	Day Year		*1 Disnosal Method Codes	Dod Godes
)* 			Landfill (No Burning) Incinerator (Complete rest of Form)	est of Form)	5. Burned in Boiler or Furnance 6. Other (Specify)
			4. Conical Burner (TeePee)	-	

FÖRM D PAGE 2

/A 05510V 1105 0111 V	
(AGENCY USE ONLY)	

_				
5.	Auxiliary Fuel:	Туре		
		Amount/Year (Specify Units)	
		Heat Content		
		Percent Sulfur		
		Percent Ash	5	7
		Supplier's Name		ii.
6.	Pollution Control Equipment:	Manufacturer		
		Model Number		
		% Efficiency	*	
		Туре	•	
		GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	Height		_ Feet
		Inside Exit Diameter	******************	Feet
		Exit Gas Velocity	·	Feet/Sec.
		Exit Gas Volume .	Į.	SCFM
		Exit Gas Temp.		°F.
8.	Estimated Emissions From Refu	use Incineration:		
	Name:	1	Basis of Estimates:	
,	- Particulates	Tons/Year		
	Sulfur Oxides	11		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel — nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter —

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Stills & Dresinates 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	6th_	23 w 1554. A	day of Februar	y,197	<u>'4</u> .
			AIR AND WATER	POLLUTION CONT	ROL COMMISSION
		4		Executive Director	may.
Expires	6th		day of February	<u>7 </u>	7

Facility No. _0800-00001-023

ADDITIONAL CONDITION IS ATTACHED

682

MPC FORM



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-023

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:
Facility No.:
AQCR:

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	ORM A GENER	RAL INFORMATION	0
1. Owner of Source			Date Submitted
2. Mailing Address		County	Location
			(UTM or LAT-Long)
3. City	State	Zip Code	Telephone
4. Name of Person	Completing Form		Title
		\$18.44	
5. Person to Conta	ct on Air Pollutio	on Matters	
Tit	le		Telephone
			
6. Major Activity			
SIC number		Office]	Warehouse
Retail or Whole	esale Store 🔲 H	lotel or Motel	Residential or Apts
School or Churc	ch 📘 H	lospital or Lab]	Other (Attach Explanation)
7. Signature of Ow	ner or Authorized	Company Officia	l Date
Type or Print Name	of Signer	*	Title
	 		

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM E	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	OUIPMENT isposal)			Page 1
Company Name	me	,	Address			for Agency use Only	ınty
Operating Schedule	9	Information fc	Information for Calender Year	Date			
Hours / Day Days / Weeks / Year	y ik ar	261	19 72				
2	m		4	5	9	7	
Reference Number	Manufacturer and Mobel Number	m per	Rated Capacity	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
Forter -	HEGIES Das	Buck 23-638	5.0	9	2 (DOWINERM)	100	
7 Mekee 0	168		1.6	11	"	"	
	•		//	"	3	//	
1* BURN 1. Cyd	1* BURNER CODES 1. Cyclone furnace	6. Multiple port gas			2* USAGE CODES 1. Boiler, Steam	DES	
2. Pulv 3. Spre 4. Han 5. Othe	2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil	e of Air) nanical)		2. Boiler, Uth 3. Air Heating 4. Air Heating 5. Others (spe	 Boiler, Other (specify) Air Heating for Space Heating Air Heating for Process Usage Others (specify) 	

FORM B PAGE 2

(FOR AGENCY USE ONLY)

1		ı	1						}						
1000	Percent Ash	0	"	u											
	Percent	D. 50016	"	77	٠.										
Fuel Data	Hess Content ETU/Ost, etc., (Spacify Units)	1025 (50F)	11	11											
F		34 400 mc=	11. SOO MEE	"			525					ĺ	ŀ		
		4.9 ME	1,6 MEF	"		99 553				Supplier					
		NAT. GAS	"	11											
	Exit Gas Temperature Degree F.									/ре					
Stack Parameters	Exit Gas Velocity Feet/Sec.									Fuel Type					
Stack Pa	Inside Exit Dia, Feet	1.5	10	1.0						ERS:					
	Stack Height Feet	65	20	30						FUEL SUPPLIERS:					
	Reference Number	1	2	N						-					

		Basis	jo.	Estimate		CANC	=)			-	Ĩ				
[ar)	Other	XIII											
(FOR AGENCY USE ONLY)		13	ons/Yea	So ₂		0.603	0.001			2					-	
(FOR A		\$2 	Er	Particulate	<			"								
			ency	Actual			-									
			Efficiency	Design												
FORM B PAGE 3		nment	Type*	(Use Table 1)												
	12	Air Pollution Control Equipment	Manufacturer and Model Number		Nowe			11								
	11	Reference	Number		/	4		3								

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

			Number of Product Output*	Emission Foints Carlins Per Year To Air	0 4.5 39,176								*Specify Units of Measure Used
	Date		Feed Input	Quantity Quantity Per Year	4.5 39,176								
Address	Information for Calendar Year	19 72	Rated Process	Capacity Tons/Hour	9.3								
	 Information	-		іоп Мате	AT 731 PLANT								
Company Name	Schedule	Hours / Days / Year		Process or Unit Operation Name	o C Diestor	e -							
Compa	Operating Schedule	24 Hours / Days		Reference	1	201100							

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number NONE Exit Gas Temperature 0F Stack Data
Exit Gas
Velocity
Feet/Sec. Inside Unit Dia. Feet Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

	F)R	М	С	1	P/	١G	E	3
--	---	----	---	---	---	----	----	---	---

(FOR AGENCY USE ONLY)

11	12				
		Process Emissions*			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Comments Only)
1	Nowe Detected	N.D.		MEASURED AREA	
	The state of the s				
1					
					
				-	

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Belng Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	u.	ju	Information for Year	3	(Agency Use Only)
Address			Date		
2					* 8
B Description of Waste Materials	U		Q		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	ınt İs)	Amount Per Year (Tons)		1* Method of Disposal
Martie					
None Control of the C					
					-
1. Type of Incineration, Specify the Following: multipe of Incinerator:	the Following: single chamber multiple Chamber Modified (describe)		Rotary Flue Fed		
		*			
2. Manufacturer's Name:		71			
Model Number Rated Capacity 3. Quantity Burned:	Pounds / Ho Pounds / Da Tons / Year	Pounds / Hour Pounds / Day Tons / Year		Type Waste	
4. Operating Schedule	Days /	Hours / Day Days / Year		*1 Disposal Method Codes	nd Codes
			1. Open Burning 2. Landfill (No Burning)		5, Burned in Boiler or Furnance 6. Other (Specify)
			3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	e)	

FORM D PAGE 2

794	(AGENCY USE ONLY)	

5.	Auxiliary	Fuel:	Туре	
			Amount/Year (Specify Units)	
			Heat Content	
			Percent Sulfur	×.,
			Percent Ash	
			Supplier's Name	
6.	Pollution	Control Equipment:	Manufacturer	
			Model Number	
			% Efficiency	
			Туре	
			GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:		Height	Feet
		5	Inside Exit Diameter	_ Feet
			Exit Gas Velocity	_ Feet/Sec.
			Exit Gas Volume	_ SCFM
			Exit Gas Temp.	_°F.
8.	Estimated	Emissions From Ref	use Incineration:	
		Name:	Basis of Estimates:	
		Particulates	Tons/Year	
		Sulfur Oxides	П	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative

14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Resin 731 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	6th	day of February , 19 74 .	
		AIR AND WATER POLLUTION CONTROL COM	MISSION
		Executive Director	
Expires	6th	day of, 19 <u>77</u> .	

Facility No. ____0800-00001-022

ADDITIONAL CONDITION IS ATTACHED

681



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-022

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

	This Space For Use By Approving Agency
Date Received:	
Facility No.:	
AOCR:	

#22 Rani 931

* *

as a second

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- Mailing Address.
 Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

-	FORM A GENERAL	_ INFORMATION	
1. Owner of Source			Date Submitted
2. Mailing Address		County	Location (UTM or LAT-Long)
	_		
3. City	State	Zip Code	Telephone
4. Name of Person	Completing Form		Title
		94	
5. Person to Cont	act on Air Pollution	Matters	
Ti	tle		Telephone
		, 4	
6. Major Activity	1		
SIC number		ffice [Warehouse
☐ Retail or Wh	olesale Store 🔲 H	otel or Motel	Residential or Apt
School or Ch	urch 📋 H	lospital or Lab]	Other (Attach Explanation
7. Signature of	Owner or Authorized	Company Officia] Date
Type or Print Nam	e of Signer		Title
			В

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify
 gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Operating Schedule Hours / Day Days / Week				1
Operating Schedule 24 Hours / Day 7 Days / Week 52 Weeks / Year			for Agency use Only	Only
Operating Schedule 24 Hours / Day				
Hours / Day Days / Weeks / Year 19_	Date			
3	5	9		7
Reference Number Number 1068TU/hr	Type of Burner Unit (use code 1*)	Usage (use code 2*)	W. Process	1
1 Nexes Bower # 7688 1.6	9	2 Donaven	001	A Space near
2 " # 16751 "	"	,	3	
1* BURNER CODES		2* USAGE CODES	DES	
1. Cyclone furnace 6. Multiple port gas 2. Pulverized coal 7. Forced draft gas 3. Spreader Stoker 8. Atomizing Oil (Stove of Air) 4. Hand fired 9. Atomizing Oil (Mechanical) 5. Other stoker (specify) 10. Rotary Cup Oil		1. Boiler, Steam 2. Boiler, Other 3. Air Heating fo 4. Air Heating fo 5. Others (specif	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

Percent Ash 1 0.0016 Percent Sulfur 1 (FOR AGENCY USE ONLY) 1025 (SEF) Heat Content BTU/Gal, etc. (Specify Units) Fuel Data 11.500 mrr Amount Per Year (Specify Units) 3 MeF Maximum Amount Per Hour (Specify Units) Supplier 1 FORM B PAGE 2 Fuel Type = Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Exit Dia. FUEL SUPPLIERS: 1 Stack Height Feet 1 Reference Number

4

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So₂ 1 Particulate 1 Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pallution Control Equipment Manufacturer and Model Number 1 Reference Number 11

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.
 Manufacturer and Model Number. Nameplate Data.
 Type. Use Table 1, Page 16. If a wet scrubber, give water
 flow in GPM and water pressure if known.
 Collection efficiency. Design and actual collection efficiency
 if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

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FOR

Hours / Days 265 Days / Year Hours / Days 265 Days / Year Hours / Days 265 Days / Year Hours / Days 265 Days / Year Have Process or Unit Operation Name Research 731 P. March Process Or Unit Operation Name Research 731 P. March A. A. A. A. A. A. A. A. A. A. A. A. A. A	Company Name		Address			3.		
Hours / Days 365 Days / Year Hated Process or Unit Operation Name Field from Freed from Touristy Fr	Operating Schedule	Informatic	on for Calendar Year		Jate			
Research Unit Operation Name Result Process or Unit Oper	24 Hours / Days 365 Days / Year		19 72					
Resin 731 Rant Are Capacity Outsity Emission onto Per Hour To Air Per Hour To			Rated Process	Feed	Input	Number of	Product	Output*
731 Prav7 4.2 2.1 18,686 1 3.1 1	Reference Process or Unit Ope Number	eration Name	Capacity Tons/Hour	Quantity Per Hour	Quantity Per Year	Emission Points To Air	Per Hour	Per Year
	131	ANT	4.2	2.01	18,686		3.1	18,686
		-						
				_				
							-	

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Number Height United Exit Gas Exit Gas Feet Case Feet Ca	Att Date of the state of the st		
	opping in	Collection Efficiency	ficiency
	(use Table 1)	Design	Actual
	9		
			٠
	•		

* For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

	F	ORN	/ C	PAGE	3
--	---	-----	-----	------	---

(FOR AGENCY USE ONLY)

11	12				
		Process Emissions*	Och	Basis	
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	for Estimation	(Agency Corments Only)
1	NONE DETECTED	N.D.		MEASUZED IN AREA	
-					
-					

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

A					
Company Name		Inform	Information for Year		(Agency Ose Only)
Address			Date		
				h	e) e
B Description of Waste Materials	ပ	10	٥		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	nt s)	Amount Per Year (Tons)		1* Method of Disposal
NONE					
Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modif	he Following: single chamber multiple Chamber Modified (describe)		Rotary Flue Fed		
					*
2. Manufacturer's Name:					
Model Number Rated Capacity 3. Quantity Burned:	Pound Pound Pound Tons.	Pounds / Hour Pounds / Day Tons / Year		Type Waste	
4. Operating Schedule	Hours Days	Hours / Day Days / Year		*1 Disposal Method Codes	nod Codes
			1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	rest of Form) e)	5. Burned in Boiler or Furnance 6. Other (Specify)

FORM D PAGE 2

				TAGENCT USE ONLY)	
5.	Auxiliary	Fuel:	Туре		
			Amount/Year (Specify Uni	ts)	
			Heat Content		
			Percent Sulfur		•
			Percent Ash		
	5.				
		:	Supplier's Name		
6.	Pollution	Control Equipment:	Manufacturer	90	
			Model Number		
			% Efficiency		
			Туре		
			GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	*: *	Height		_ Feet
			Inside Exit Diameter		Feet
			Exit Gas Velocity		Feet/Sec.
35		,ti	Exit Gas Volume		SCFM
			Exit Gas Temp.		°F.
8.	Estimated E	missions From Refuse	Incineration:		
	N	ame:		Basis of Estimates:	
	P	articulates	Tons/Year		

_____Tons/Year

Sulfur Oxides

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel — nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

(layou



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

October 16, 1974

Jourst

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

Attn: Mr. Jerry Stubberfield

Gentlemen:

FACILITY PERMIT NO. 0800-00001-021-PILOT PLANT

As required by additional condition No. 14, the attached table summarizes our Pilot Plant work through July 1, 1974. We will continue to submit the required documentation on a semi-annual basis.

Very truly yours,

HERCULES INCORPORATED

Bv:

Charles S. Jordan

Senior Chemical Engineer

CSJ:p
Attachment

RECEIVED

AIR & WATER POLLUTION CONTROL COMMISSION STATE OF MICEISSIPPI *

				(
Type	No-flow	No- £1	No-flow	No-flow	No-flow	No-flow	No-flow		H ₂ Purge	Recycle	No. #10;	8 017 01
Assessment of Emissions Control Equipment	Total Condenser	Total Condenser	Total Condenser	Total Condenser	Total Condenser				Soda Ash Soln. Neutralization	None	Barometric	Condensers
Assess Potential Emissions	Water of Reaction	N11	N11	N11	N11	N11	Nil	2	Hydrogen H ₂ S	Hydrogen	N11	
Type Products Produced	Amide	Resin Blend	Resin Blend	Resin Blend	Resin Blend	Resin Blend	Resin Blend		Desulfurized- Hydrogenated Resin	Hydrogenated Resin	Distilled Resin	42
Raw Materials Used	Stearic Acid Ethylene Diamine Silicone Oil	Resins	Resins	Resins	Resins	Resins	Resins	€	Resin para-Menthane Hydrogen	Desulfurized Resin para-Menthane Hydrogen	Rosin	
Duration of tests (Days)	3 9	ന	7	H		H	н		5	45	09	
Experimental Equipment Name Kettle	(Y)	(B)	(O)	<u>(£)</u>	(E)	(F)	(9)	Reactors	(Y)	(B)	St111 (A)	





HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

April 23, 1974

Mr. Wayne B. Anderson Chief of Engineering, Div. of Air Pollution Control Air & Water Pollution Control Commission P. O. Box 827 - Robert E. Lee Building Jackson, Mississippi 39205

Dear Wayne:

FACILITY PERMIT NO. 0800-00001-021 - PILOT PLANT

We have reviewed your letter of April 3, 1974 in which you indicated that your reporting requirements for the facility permit for our Pilot Plant could not be retracted.

After discussing this requirement with our management and with your assurances that the Commission has made adequate provisions to preserve confidentiality, we accept your ruling that this provision for reporting will remain a condition of the Pilot Plant permit.

We will submit the required documentation on a semi-annual basis as required.

Very truly yours,

Manager

JKR:hj

cc: F. H. Gardner, Jr.

C. S. Jordan

P. B. Holliman

Don Spence

RECEIVED

Hrn 2 . 1974

AIR & WATER POLLUTION CONTROL COMMISSION STATE OF MISSISSIPPI

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

Ray Tribble Chairman Money

James W. Carraway Vice Chairman Bassfield

Board of Health

Marine Conservation Commission W. J. Demoran

Charles W. Else Yazoo City

Game & Fish Commission Barry O. Freeman

W. E. Gupton Jackson



Glen Wood, Jr., Executive Director P. O. Box 827 - Robert E. Lee Building Jackson, Mississippi 39205

Telephones:

Administrative Offices 601-354-7513
Air Division 601-354-6783
Water Division 601-354-7661

April 3, 1974

COMMISSIONERS

Oil & Gas Board Quincy R. Hodges Hermit A. Jones Canton

Board of Water Commissioners Jack Pepper

ASSOCIATE MEMBERS

State Park System Dr. John M. King

A & I Board Paul Burt

Geological Survey W. H. Moore

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

Attention: Mr. J. K. Read

SUBJECT: Pilot Plant Facility

Dear Mr. Read:

Please excuse my delay in answering your letter of February 21, 1974.

Regarding your request for reconsideration of the permit condition requiring semi-annual data reporting on the Pilot Plant, it is necessary that this data be reported and we cannot retract this condition. Our reasons for this requirement are as follows:

- 1. A file must be kept on all permitted facilities showing the quality and quantity of all actual and/or potential emissions. Since the pilot plant's raw materials may vary, the emissions may, therefore, vary, necessitating frequent up-dating of the facility file.
- 2. The only other alternative to this type data reporting would require the filing of an application for Approval to Construct (or, in this case, modify) each time you desired to alter the materials being processed in the pilot plant. This, in essence, would be data reporting also and would be more difficult to handle since it would require reporting prior to a change, additional and repeated permitting of one set of equipment, additional paperwork and filing both in our offices and yours.

Hercules, Incorporated Page 2
April 3, 1974

- 3. While confidentiality of information is a point for concern, the Commission has made provisions for preserving it. Company files are open only to the Commission staff and to authorized company officials. (Authorized meaning that the representative must present written authorization on letterhead stationery signed by the top level plant official before being allowed to see documents in the file.)
- 4. Presenting information to us under the permit condition will enable us to summarize and generalize data when we report it to EPA, as we must do under Federal regulation. Otherwise, the reporting must be done directly by you to EPA.

Under Commission regulations, you have the right to request a hearing to voice your grievance on this matter if you are still aggrieved. Any request for hearing must be in writing and the request must be made within thirty (30) days of receipt of this letter.

On another related matter, we have received the Compliance Schedules for the boiler systems. You will be contacted on this shortly by separate

Very truly yours,

Wayne B. Anderson Chief of Engineering Division of Air Pollution Control

WBA:sb



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 21, 1974



FEB 20 1974

AIR & WATER POLLUTION CONTROL COMMISSION STATE OF MISSISSIPPI

Mississippi Air & Water Pollution Control Commission P. O. Box 827, Robert E. Lee Building Jackson, Mississippi 39205

Attention: Mr. Wayne B. Anderson

Dear Wayne:

We have received the thirty-one Permits to Operate and the two Tolerance Permits covering the emission sources at the Hercules' Hattiesburg operation, and wish to thank your personnel for the consideration and efforts required to process these applications.

We are working on the compliance schedule for submission on the two Tolerance Permits and should have these in shape for your consideration shortly.

With respect to the Permits to Operate, we respectfully request a reconsideration of Condition 14 on Facility Permit No. 0800-00001-021, Pilot Plant. This condition requests semi-annual reports of all work done in our Pilot Plant including duration of tests, types of raw materials used and products produced with an assessment of emissions caused.

Our Pilot Plant facility is dedicated to doing development work on new and experimental products for submission to our customers so that we will be in a dominant position with respect to supplying products required by the trade. Many of these development products are of a very confidential nature and reports such as you request are handled in a restricted and confidential manner even within our organization. The submission of the requested data to a public agency would possibly jeopardize this confidentiality and reveal the areas of our investigations to unauthorized parties, and abrogate secrecy agreements with customers.

The very nature of our business is such that new products are continually being required to replace existing items to keep ahead of our competition. If our plans and procedures for producing these experimental products are exposed to public inspection or even submitted outside of the company where control of the information is lost, our corporate plans and products may fall into the hands of other manufacturers of similar items. This could result in severe economic loss.

We feel that your agency is aware that our firm is dedicated to the proposition that facilities will be installed and maintained to minimize any objectional or hazardous emissions. This objective is followed with respect to our Pilot Plant operations and since most of the preparations are of a



relatively small scale, we feel that this is one of the least susceptible areas of our plant to possible emission problems.

As an alternative to the present Condition 14, we submit that a clause such as your Commission attached to nineteen of our other permits which states

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

will also cover operations at this source.

Your inspection of our Pilot Plant facilities is also welcome at any time and we will be happy to discuss the operations with you or your representatives, however, as stated above, we are of the opinion that submission of the requested reports on our experimental operations can result in economic harm, loss of sales, and loss of potential production and jobs.

Your consideration of this request for withdrawal of this condition to our Pilot Plant Permit to Operate will be gratefully appreciated. If you feel that a meeting on this issue would be beneficial we will be glad to arrange to be present at such time as is agreeable to you.

Very truly yours,

JKR:hj

*

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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 trits	day of	, 19 <u></u>	
91	AIR AND WATER POL	LUTION CONTRO	L COMMISSION
		Executive Director	£ /2.

Expires 6th day of February , 19 77 .

Facility No. <u>0800-000</u>1-021

6th

ADDITIONAL CONDITION IS ATTACHED

680

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-021

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 & 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.



FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

l. Owner of So	urce		Date Submitted
2. Mailing Add	ress	County	Location (UTM or LAT-Long)
3. City	State	Zip Code	Telephone
	3		
4. Name of Per	son Completing Form		Title
	Title	Т	elephone
	itv		
6 Maior Activ	5		
SIC number	ng or Processing	Office] Warehouse
SIC number	ng or Processing		Warehouse Residential or Apts.
SIC number	ng or Processing	Hotel or Motel	Residential or Apts.
Retail or School or	ng or Processing	Hotel or Motel Hospital or Lab	Residential or Apts. Other (Attach Explanation)

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Date 5 6 7 6 A Most Usage scode 1*) C A BourHeary C Boiler, Steam 2* USAGE CODES 1. Boiler, Steam 2* Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage			FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	ECUIPMENT Disposal)			Page 1
Operating Schedule Information for Calender Vear Date 19 22 4 5 6 6 7 7 19 22 A 4 5 6 6 7 7 Structure and Mobel Number Parks Data Boules at 2008 2-1 3 6 2 (Dust negrol) 1000 1- BUINER CODES 1- Building port gas 2. Delay at 18 18 18 18 18 18 18 18 18 18 18 18 18		Company Name		Address			for Agency use Or	γļα
STRUTHER CODES 19 22 Hours / Day Nameliacture and Mobel Number 19 22 A B B STRUTHER CODES 1. BURNER CODES 1. Subscription Color of the Control of the Co				-	7T 34			
Hours / Day Weeks / Vest S	ď	erating Schedule	Information fo	or Calender Year	Date			
Manufacture and Mobal Number Pares Copacity Type of Burner Unit Usage Type of Burner Copacity Type of Burner Cop	400	Hours / Day Days / Week Weeks / Year	. 61	6%				
STRUTHES - Wests Dav. Builded Number 37.3 6 2 (Bustries) 700 700 1198 1198 1198 1198 1198 1198 1198 11	2	က		4	2	9	7	
# 3208 9.3 6 2 (Bustifield) 1000 Part gas	Reference Number	Manufacturer and Mobel Nur	mber	Rated Capacity 10 ⁶ BTU/hr t	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Us % Process	
le port gas Lidraft gas Zing Oil (Stove of Air) Chang Oil (Mechanical)	/	STRUTHEIS - WELLS DOWN B	#		9		001	
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Robard Cin Oil		-						
6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical)								
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6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical)		1* BURNER CODES				2* USAGE COD	ES	
		•	5. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove 9. Atomizing Oil (Mechia	of Air) anical)	e.	1. Boiler, Steam 2. Boiler, Other 3. Air Heating f	(specify) or Space Heating or Process Usage	

Percent Ash (FOR AGENCY USE ONLY) Fuel Data 23.000 ME Supplier **FORM B PAGE 2** Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet 1.5 FUEL SUPPLIERS: Stack Height Feet Reference Number

		Basis	or Estimate		CANO							
ILY)			aar)	(specify)								
(FOR AGENCY USE ONLY)			Emissions (Tons/Year)	So ₂	0.002							
(FOR A				Particulate	0							
			ncy	Actual								
			Efficiency	Design								
FORM B PAGE 3		ament	Type*	(Use Lable 1)					9			
ŭ.	12	Air Pallution Control Equipment.	Manufacturer and Model Number		Nove							
	11	Reference	Number		1							

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- 1. Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

				I		2	1	1	C		1	İ	I	1	
			~	Outout *	Quantity Per Year	2,190									
				Product Output*	Quantity Per Hour	0.25									
				Minches	Emission Points To Air	2									
	=	Date			reed input tity Quantity our Per Year	3190									
		-			Cuantity Per Hour	0.25									
Address		Information for Calendar Year	72		Rated Process Capacity Tons/Hour	0.25			3						
		Information f	19_		ше										
	b.	ıle	Days / Year		Process or Unit Operation Name	Peant									
Omerano Name	and income and income	Operating Schedule	Hours / Days / Year		-A	Picor									
			34 Ho		Reference Number										

*Specify Units of Measure Used

FORM C PAGE 2

(FOR AGENCY USE ONLY)

eference			Stack Data		Air Pollu	Air Pollution Control Equipment	ant	
Number	Height	Inside Unit Dia.	Exit Gas Velocity	Exit Gas Temperature	Manufacturer and Model Number	Tvoe*		Collection Efficiency
	B	1881	reet/sec.	45		(use Table 1)	Design	Actual
14	50	0.08			NONE			
18	1.0	0.08						

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

		_	-	_	_	_	_	_
⊏.	ΛR	RA.	~	D	Λ	G	┏.	-7

(FOR AGENCY USE ONLY)

12 11 Process Emissions* Others (Specify by chemical composition) Basis Reference Number for Estimation (Agency Comments Only) Sulfur Oxides **Particulates** HYDROGEN MEASURED SCFM 11 11 // "

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

(Agency Use Only)		* ;	ш	1* Method of Disposal					Type Waste		*1 Disposal Method Codes	5. Burned in Boiler or Furnance	o. Other (speciny) est of Form))
Information for Year	Date		Ω	Amount Per Year (Tons)			Rotary □ Flue Fed □			Day ar			2. Landrill (No Burning) 3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)
Name	ess		υ	Maximum Amount Per Day (Pounds)			pecify the Following: single chamber multiple Chamber Modified (describe) Other (describe)		Pounds / Hour	Tons / Vear	Days / Year		
Company Name	Address		B Description of Waste Materials	Type (Describe)	Nowe		If Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modif	2 Manifacturer's Name:	Model Number Rated Capacity	3. Quantity Burned:	The character of the ch		

FORM,D PAGE 2

	4.07.00.00.00	
_	(AGENCY USE ONLY)	
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Units)		
0111 03 7		
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		·
		
		
		Foot
		_ Feet
er		Feet

5.	Auxiliary	/ Fuel:	Туре	
			Amount/Year (Specify Units)	
			Heat Content	1
		,	Percent Sulfur	•
			Percent Ash	
			Supplier's Name	- 1 1
6.	Pollution	Control Equipment:	Manufacturer	
			Model Number	
			% Efficiency	**
			Туре	
			GPM Water Flow (If Wet Scrubber)	-
7.	Stack Data:		Height	_ Feet
			Inside Exit Diameter	Feet
			Exit Gas Velocity	Feet/Sec.
			Exit Gas Volume	SCFM
			Exit Gas Temp.	o _F .
8.	Estimated	Emissions From Refu	se Incineration:	
		Name:	Basis of Estimates:	
		Particulates	Tons/Year	
		Sulfur Oxides	II	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber - with baffles

42 wet cyclones - rotocione

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

WAA

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process <u>Foral & Staybelite Plant</u>

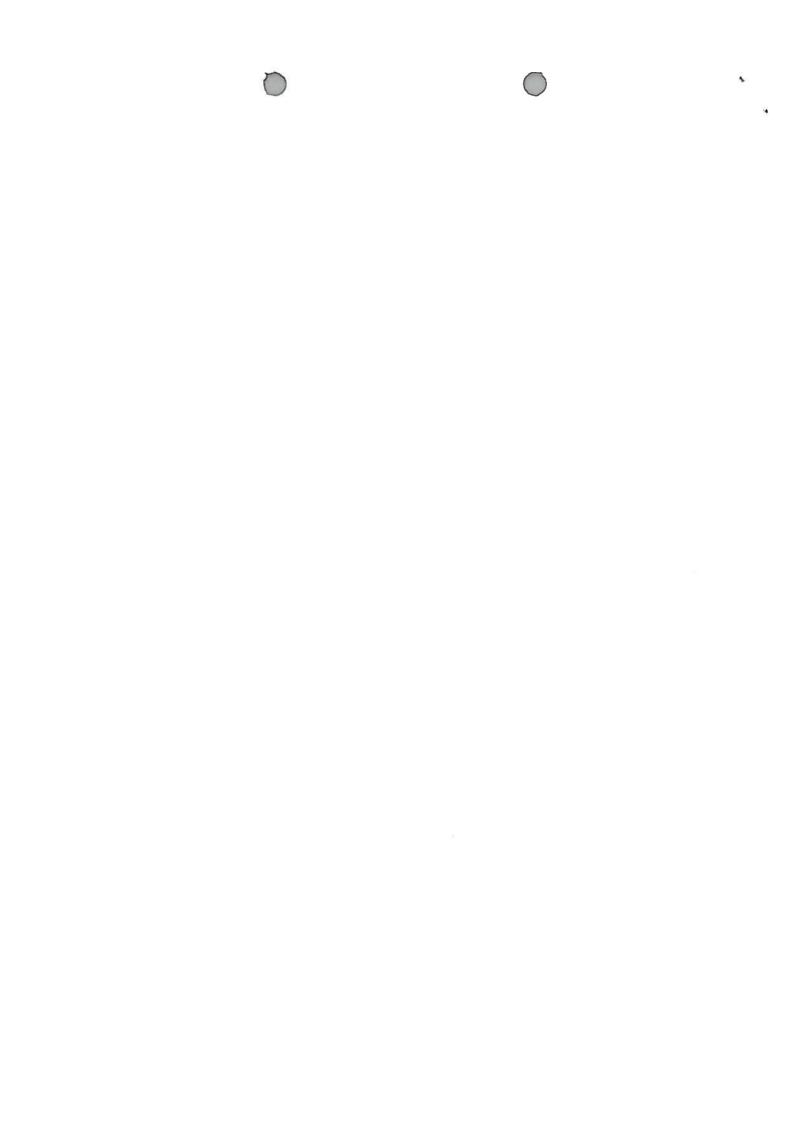
Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. 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 promargated the	Smooth Bolling		Service and the service and th	
Issued this 6th	_ day of _	February	, 19 74	. 10
	AIR AI	ND WATER POLI	UTION CONTROL	COMMISSION
	- H	, E	xecutive Director	0
Expires 6th	_ day of _	February	, 19 ⁷⁷	•
Facility No. <u>0800-0000</u> 1	-019			

additional condition is attached

678



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-019

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

#19

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:		
Facility No.:		
AOCR:		

19 FORAL & Supplifie

N ...

34 ---

*

1

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Source			late Submitted						
2. Mailing Address		County (I	Location JTM or LAT-Long)						
7	W 4								
3. City	State	Zip Code	Telephone						
a a	D.		-						
4. Name of Person C	ompleting Form	Title							
T. Name of Terson compressing form									
5. Person to Contact on Air Pollution Matters									
Titl	e	Telephone							
		5							
6. Major Activity									
SIC number		ffice 📙 V	larehouse						
Retail or Whole	sale Store 🔲 He	otel or Motel 📙 F	Residential or Apts.						
School or Churc	h <u> </u>	ospital or Lab 🛗 (Other (Attach Explanation)						
			Data						
7. Signature of Own	er or Authorized	Company Official	Date						

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- Rated Capacity in Millions of BTU per hour. 4.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not 5. listed put (11) and specify.
- Type of fuel burning equipment. Use codes (2*) at 6. Usage. bottom of form. If not listed put (5) and specify.
- Heat Usage. Percent of heat used for process and percent for 7. space heating.

Page 2, Form B

- Reference Number. Continue reference numbers from Page 1, using 8. same number to identify information for same unit.
- Stack Parameters. Stack Height in feet from ground. Stack Inside Exit Diameter in feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.) Exit Gas Temperature in degrees F.
- 10. Fuel Data. Coal, Gas, #2 Oil, #6 Oil, etc. Fuel Type. Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify. Average Percent Sulfur Content. Average Percent Ash Content. (If percent sulfur and percent ash are not known, list fuel type

and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM E	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT (sposal)			Page 1
	Company Name		Address			for Agency use Only	nly
				ři,			
Ŏ	Operating Schedule	Information fo	Information for Calender Year	Date			
32	Hours / Day Days / Week Weeks / Year	19	19_72				2
2	က		4	D.	9	7	
Reference	Manufacturer and Mobel Number	ber	Rated Capacity 10 ⁶ BTU/hr	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
	an trues - Men of Brief	COUT CO.	<i>t.</i>	3	2 (DOWTHERM)	001	
			1				4
	1* BURNER CODES				2* USAGE CODES	DES	
	1. Cyclone furnace 7. 2. Pulverized coal 7. 3. Spreader Stoker 9. 4. Hand fired	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical)	e of Air) nanical)		Boiler, Steam Boiler, Other (specify) Air Heating for Space Air Heating for Process Action of Process	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage	
		10. Rotary Cup Oil 11. Others (specify)			5. Umers (spe	scify /	

Percent Ash 0.00016 Percent Sulfur (FOR AGENCY USE ONLY) Heat Content BTU/Gal, etc. (Specify Units) (mcF) 23,000 (me) 1025 (SCF) Fuel Data Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) Supplier 3.2 **FORM B PAGE 2** GAS Fuel Type Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) 0.002 So2 Particulate 9 Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number NONE Reference Number 11

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

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FORM C MANUFACTURING PROCESS OPERATIONS

		Product Qutput* Product Qutput* Quantity Proce Vost	16.832						
		Product Quantity	2.2						
		Number of Emission Points To Air	/						
	Date	Feed Input tity Quantity our Per Year	16,832						
		Feed Quantity Per Hour	2.2						
Address	Information for Calendar Vear	Rated Process Capacity Tons/Hour	3.9						
	Information 19	Process or Unit Operation Name	ANT						
Company Name	Operating Schedule Hours / Days / Year		TOOK & STAYAGELITE PLA						
	24 HG	Reference	/						

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number Exit Gas Temperature 0F Stack Data Exit Gas Velocity Feet/Sec. Inside Unit Dia. Feet 30 Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)
40	

11	1	2						
		Process Emissions*						
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Coments Only)			
	1 0	/ -	HYDROGEN PURGE					
	NONE DETECTED	N. D.	20 SEFM	MEASURED	1			
					1.0-			
					ii.			
			1					
).						
			-					
			, V					
			<u> </u>					
	 							
		L						

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data. Height in Feet above Ground. Inside Exit Diameter in Feet. Exit Gas Velocity in Feet per Second. Exit Gas Volume if Velocity not Known. Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	me	Information for Year	Year	(Agency Use Only)
			15	
Address		Date		
B Description of Waste Materials	U		Q	ш
Type (Describe)	Maximum Amount Per Day (Pounds)		Amount Per Year (Tons)	1* Method of Disposal
Nowe				
				E .
			3	
Waste Disposal is by Incineration, Specify the Following:	fy the Following:			
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)	Rot	Rotary Flue Fed	
2. Manufacturer's Name:				
Rated Capacity	Pounds / Hours	/ Hour	Tyne Weste	
3. Quantity Burned:	Pounds / Day	/ Day	also and a	
4. Operating Schedule	Tons / Year	/ear		
	Days / Year	fear	*1 Dispose	*1 Disposal Method Codes
		1. Ope	1. Open Burning	5. Burned in Boiler or Furnance
		2. Land	2. Landfill (No Burning)	
20		3. Incir 4. Con	3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	(E

FORM D PAGE 2

5.	Auxiliary Fuel:	Туре	
		Amount/Year (Specify Units)	·
		Heat Content	
		Percent Sulfur	
		Percent Ash	
		Supplier's Name	
6.	Pollution Control Equ		
-•		Model Number	
		% Efficiency	
		Туре	
		GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:	Height	Feet
		Inside Exit Diameter	_ Feet
		Exit Gas Velocity	Feet/Sec.
		Exit Gas Volume	SCFM
		Exit Gas Temp.	_ °F.
8.	Estimated Emissions	rom Refuse Incineration:	
	Name:	Basis of Estimates:	
	Particulate	sTons/Year	100
	Sulfur Oxio	es "	

TABLE 1

CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group -- SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Flaking House in Hard Resins Area

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 the	reunder		diations of standards
Issued this_	6th	day of February	, 19	74.
		AIR AND WATER P	POLLUTION CONT	ROL COMMISSION
			Executive Director	may.
Expires	6th	day of February	, 19 _	77.
Facility No.	0800-00001	-018		
MPC FORM	ADDITIONAL	CONDITIONS ARE	ATTACHED	677



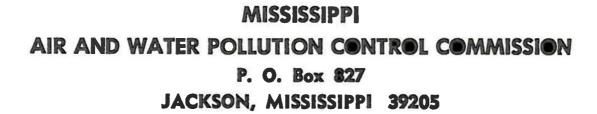
ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-018

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



APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AQCR:	

18 FLAKING HOUSE OF CO

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1 53 Jr F.

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FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Source	Δ			ם	ate Submitte
1. Owner or Source		·		<u> </u>	
2. Mailing Addres	S	Cou	ınty	(1	Location UTM or LAT-Lo
	-	ā			
3. City	State		Zip Code		Telepho
					,
4. Name of Persor	Completing Form		8	Tit	tle
					9
5. Person to Cont	act on Air Pollut	ion Mati	ters		
T.	itle	î		Tele	ephone
6. Major Activit	/		= 2		
SIC number		Office	1	\	Warehouse
Retail or Who	olesale Store 🔲	Hotel (or Motel]] !	Residential (
School or Ch	urch 🔲	Hospit	al or Lab]		Other (Attach Expla
7. Signature of	Owner or Authorize	ed Compa	ny Officia	1	Date

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet,
 etc. Specify. Average amount Burned per Year. Gallons, Tons,
 Million cubic feet, etc. Specify. Heat Content of Fuel. BTU
 per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type
 and supplier's name at bottom of page in spaces provided so that
 information may be obtained.)



Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

	ı	ı	1		1	ı	ı	ı	l e		, ,						
		Percent Ash															
ONLY)		Percent Sulfur		 	3.0												
(FOR AGENCY USE ONLY)	Fuel Data	Heat Content BTU/Gal, etc, (Specify Units)									٠						
	F	Amount Per Year (Specify Units)					v		12				ì	1	1	ĺΙ	}
FORM B PAGE 2		Maximum Amount Per Hour (Specify Units)										Supplier					
FORM		Fuel Type															
		Exit Gas Temperature Degree F.		 _				**				8 d <i>A</i>					
	Stack Parameters	Exit Gas Velocity Feet/Sec.							C			Fuel Type					
	Stack P	Inside Exit Dia. Feet										IERS:					
		Stack Height Feet										FUEL SUPPLIERS:					
		Reference Number															

			Sasis of	Estimate								
NLY)			1	other	(spacify)							
(FOR AGENCY USE ONLY)			Carlotte (Tour Man)	resions (10ns/1	700							
		13	ů	Participate of								
				ETTICIONCY								
			350	Deci of								
FORM B PAGE 3			ment	Type*								
P0	ç	71	Air Pollution Control Equipment	Manufacturer and Model Number				19				
	Ξ		Reference	Number								

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used.

 Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

	Date	
Address	Information for Calendar Year	19 72
Company Name	Operating Schedule	24 Hours / Days / 265 Days / Year

ī	ı	1 0	N	ı	1	1	()(ĺ	Î.	1	ľ	Í	ĭ	í
Product Output*	Quantity Per Year .	23 768													
Product	Quantity Per Hour	2.7													
Number of	Emission Points To Air	4													
Feed Input	Quantity Per Year	891.8													
Feed	Quantity Per Hour	2,7													
Rated Process	Capacity Tons/Hour	3,5						,							
	Process or Unit Operation Name	TAKING & THERMANIC AT HRA													
Reference	Number	/				4.2									

FORM C PAGE 2

(FOR AGENCY USE ONLY)

		(l	1.	-	ſ	0		
	Efficiency	Actual									
ınt	Collection Efficiency	Design									
Air Pollution Control Equipment	0 <u>4</u>	tuse Table 15	40	1/1					4		
Air Polluti	Manifactires and Model Nimber		FLAKING BELT VAPOR HOSD VENT	FUNKING BELT DWST HORD VENT							
	Exit Gas Temperature	oF.									
Stack Data	Exit Gas Velocity	Feet/Sec.	30	00							
Sta	Inside	Feet	2.0	3.0							
	Height	Feet	0:1	1.0							
	Reference Number		/	1							

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

12	

FORM	C	PAGE 3

(FOR AGENCY USE ONLY)

11	1	2			
		Process Emissions*			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
/A	NONE DETECTED	N. D.		MEASURED	
18	"	"		"	
		*			
	2				
×					
			1		
		7.	1		
			-		

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	9	Information for Year		(Agency Use Only)
Address		Date		
				*
B Description of Waste Materials	υ	Q		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	nt Amount Per Year	Year	1* Method of Disposal
None				
			82	
f Waste Disposal is by Incineration, Specify the Following:	the Following:			
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)	Rotary		
2. Manufacturer's Name:				
Rated Capacity	Pounds / Hour	/ Hour	Type Waste	
3. Quantity Burned:	Pounds / Day	/ Day		
	Tons / Year	Year	Są	
4. Operating Schedule	Days / Year	Day	*1 Disnocal Mothod Codes	strod Codes
				rones
		1. Open Burning 2. Landfill (No Burning)	l Burnina)	5. Burned in Boller or Furnance 6. Other (Specify)
		3. Incinerator (C	3. Incinerator (Complete rest of Form)	
		4. Conical Burner (TeePee)	ir (TeePee)	

FORM D PAGE, 2

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(AGENCY USE ONLY)	
	 -

5.	Auxiliary Fuel	1•	Тур	ne		
J.	Auxiliary rue	•		ount/Year (Specify Units)	
				at Content	,	
				rcent Sulfur		
			Per	rcent Ash	4	
			Sup	oplier's Name		
6.	Pollution Cont	rol Equipmer:	nt:	Manufacturer		
	*			Model Number		· · · · · · · · · · · · · · · · · · ·
			10	% Efficiency		
				Туре		
				GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:			Height		_ Feet
				Inside Exit Diameter		Feet
	7			Exit Gas Velocity		Feet/Sec.
				Exit Gas Volume		SCFM
				Exit Gas Temp.		°F.
8.	Estimated Emis	sions From F	Refuse	Incineration:	3	
	Name	: :			Basis of Estimates:	
	- Part	ciculates		Tons/Year		
	Sulf	ur Oxides		п		

TABLE 1

CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel — nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption — scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other

Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Metalyn 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	6th	day	/ of _	Februar	y same	19	74
133060 0113		vid	, 0			,	

AIR AND WATER POLLUTION CONTROLOCOMMISSION

Executive Directo

Expires 6th day of February , 19 77.

Facility No. __0800-00001-017

MPC FORMADDITIONAL CONDITION IS ATTACHED

676



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-017

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box \$27 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AOCB:	

#11 Modern dark of white

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FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address.
 Address for plant location--not address of company headquarters. County in which plant is located. Location
 by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

		FORM A	GENERAL	. INFO	RMATION		**************************************	
1.	Owner of Source					Date Submit	ted	
2.	Mailing Address	2		Coun	ty	Location (UTM or LAT-I	_ong)	
				· · · · · · · · · · · · · · · · · · ·				
3.	City	State		Z.	ip Code	Teleph	ione	
				.				
4.	Name of Person (Completing For	rm 		T	itle -		
	0	· · · · · · · · · · · · · · · · · · ·		И				
5.	Person to Contac	t on Air Poll	ution	Matter	's			
Title Telephone								
					3			
6.	Major Activity	***						
SIC	number Manufacturing or F	rocessing] Offi	ice		Warehouse		
	Retail or Whole	sale Store 🗀	Hote	el or	Motel 📙	Residential (or Apts	
	School or Churc	h <u> </u>	Hosp	oital	or Lab 🗍	Other (Attach Expla	nation)	
7.	Signature of Own	er or Authoria	zed Con	ıpany	Official	Date		
							1	
Турє	e or Print Name o	f Signer			T·	itle		

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Operating Schedule Information for Calender Year Date Operating Schedule Information for Calender Year Date A			FORM E	FORM B FUEL BURNING EQUIPMEN I (Except for Refuse Disposal)	EQUIPMENT			- age
Operating Schedule Information for Calender Vear Date Hours / Day / Week Days / Week American of Mobel Number Manufacturer and Mobel Number Force W Heel ear David Charles And Charles Cha		Company Name		Address			for Agency use Only	
Operating Schedule Information for Calender Year Date Hours Days / Week Days / Week Days / Week Say / Week Say / Week Manufacturer and Mobel Number Manufacturer and Mobel Number Manufacturer and Mobel Number Say / Week Rated Capacity Type of Burner Unit (use code 2*) Say / Week Say / Week Rated Capacity Type of Burner Unit (use code 2*) Say / Week					AGE .			
Hours / Day Week 19 72	\ \d	serating Schedule	Information fo	or Calender Year	Date	250		
Manufacturer and Mobel Number Manufacturer and Mobel Number Manufacturer and Mobel Number Manufacturer and Mobel Number Manufacturer and Mobel Number 3, 3 6 Manufacturer and Mobel Number 3, 3 6 Manufacturer and Mobel Number Manufacturer an		Hours / Day Days / Week Weeks / Year	191	77	1			
Manufacturer and Mobel Number Manufacturer and Mobel Number Manufacturer and Mobel Number Manufacturer and Mobel Number 3.3 6 2 Deutstrescen 2.0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		3		4	2	9	7	
Fores-WHEELER Paw Bousk # 1240 3,3 6 20	erence	Manufacturer and Mobel Ni	n per	Rated Capacity 10 ⁶ BTU/hr b	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	% Space heat
DDES	Jage L	A C	# 171	ů.	9	"	001	
		4* DI IDNIED CODES				2* USAGE COE)ES	
6. Multiple port gas 7. Forred draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) acify) 10. Rotary Cup Oil		1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stov 9. Atomizing Oil (Mecl 10. Rotary Cup Oil 11. Others (smerity)	re of Air) hanical)		1. Boiler, Steam 2. Boiler, Other 3. Air Heating fo 4. Air Heating fo 5. Others (specif	n r (specify) for Space Heating for Process Usage :ify)	

Percent Ash (FOR AGENCY USE ONLY) Fuel Data Supplier FORM B PAGE 2 Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment. Manufacturer and Model Number Reference Number 7

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

OPERATIONS	
IG PROCESS (
MANUFACTURIN	
FORM C	

IONS PAGE 1			192		Mr. L.	Quantity Emission Points Quantity Quantity Quantity Per Year To Air Per Hour Per Yati	0.13						
FORM C MANUFACTURING PROCESS OPERATIONS	Address	,	Information for Calendar Year Date	19 72	Rated Process Fear Innut	Capacity Quantity Tons/Hour Per Hour	PA 0.68 0.13						
	Company Name	4	Operating Schedule	Hours / Days 365 Days / Year		Process or Unit Operation Name	METALYN CLANT AT HE						
				24 HO	Reference	Number	/						

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number NONE Exit Gas Temperature oF Stack Data
Exit Gas
Velocity
Feet/Sec. Inside Unit Dia. Feet 30 Height Feet Reference Number

* For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

		÷			
11	1	12			
Reference Number	Particulates	Process Emissions* Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
/	NONE DETECTED	N. D.		MEASURED IN AREA	
					0
		<u> </u>			
					,

FORM C

PAGE 3

(FOR AGENCY USE ONLY)

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	91	Information for Year		(Agency Use Only)	l
		,	з	83	i
Address		Date			
là.	27		T		
B Description of Waste Materials	U	٥		ш	ı
Type (Describe)	Maximum Amount Per Day (Pounds)	nt Amount Per Year		1* Method of Disposal	
NONE					
					1
				8	1
				•	1 -
Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modifi Other	the Following: single chamber multiple Chamber Modified (describe)	Rotary □ Flue Fed □			1
2. Manufacturer's Name:					
Model Number Rated Capacity 3. Quantity Burned: 4. Operating Schedule	Pounds / Hour Pounds / Day Tons / Year Hours / Day	Hour	Type Waste		,
	Days / Year	*1 Disposal N 1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	*1 Disposal Method Codes 5. Bu g) ste rest of Form)	od Codes 5. Burned in Boiler or Furnance 6. Other (Specify)	1 1

FORM D PAGE 2

(AGENCY USE ONLY)	
	F

5.	Auxiliary Fuel:	Туре		
••	,	Amount/Year (Specify Units)		
		Heat Content	W ³⁴	
		Percent Sulfur		
		Percent Ash	2	
		Supplier's Name		
6.	Pollution Control Equipment:			
0.	Politation conteror Equipments	Model Number		
		% Efficiency		
		Туре		
		GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	Height		_ Feet
/·	Sidek butu.	Inside Exit Diameter		Feet
		Exit Gas Velocity		Feet/Sec.
		Exit Gas Volume	J)	SCFM
		Exit Gas Temp.		o _F .
8.	Estimated Emissions From Re	fuse Incineration:		
٠.	Name:		Basis of Estimates:	
	- Particulates	Tons/Year		
	Sulfur Oxides	11		, , , , , , , , , , , , , , , , , , ,
	Sullui Oxides	8		
		¥l		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Continuous Esterfication Unit

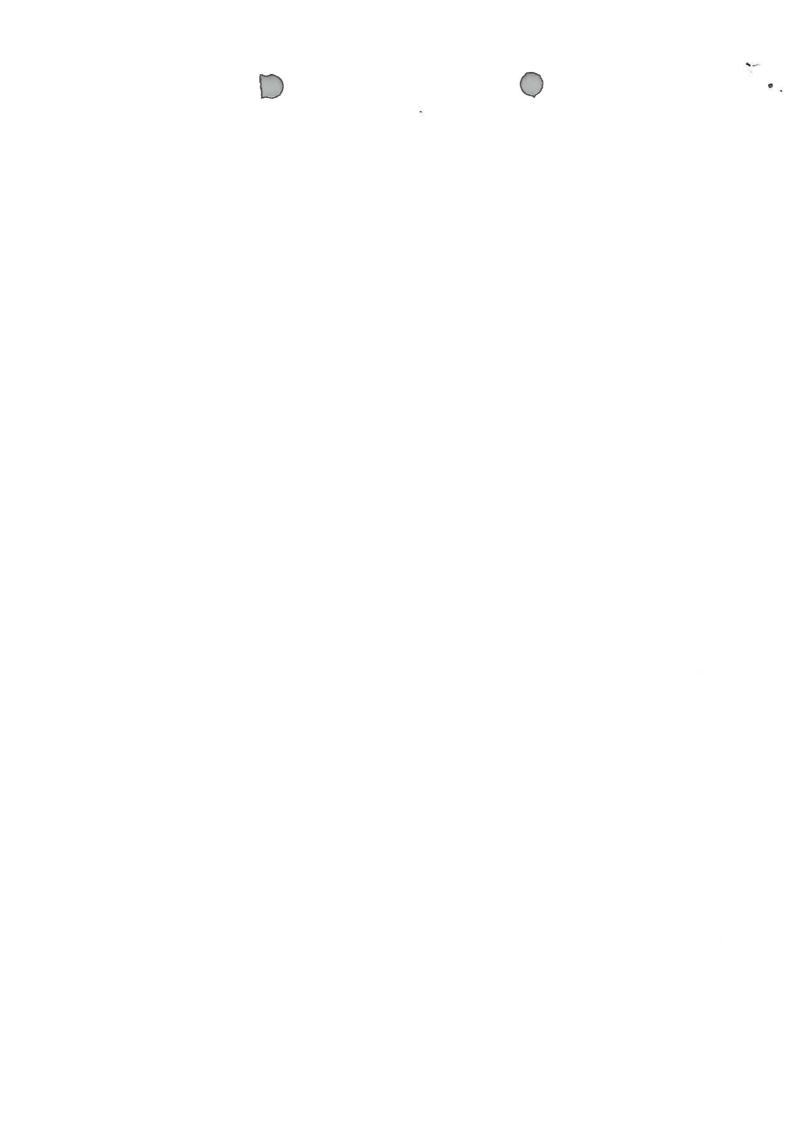
Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission.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

	1 1			and the same of th	
Issued this	6th	_ day of	February	, 197_	4
		AIR A	ND WATER POI	LUTION CONT	BOL COMMISSION
				Executive Director	0
Expires	6th	_ day of _	February	, 19	77.
Facility No	-0800-0000	1-016			

ADDITIONAL CONDITION IS ATTACHED

675



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-016

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



16

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION?

This Space For Use By Approving Agency

Date Received:	···	
Facility No.:		
AOCB.		

16 Continues Unit of HR

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

			1	
1. Owner of Sour			Da	te Submitted
2. Mailing Addre	iec .	County		Location
Z. Platting Addre			(U ⁻	TM or LAT-Long)
3. City	State	Zip Code		Telephone
	· · · · · · · · · · · · · · · · · · ·			
4. Name of Perso	n Completing Form		Titl	e
q				
5. Person to Con	tact on Air Pollut	ion Matters		
		-		
Т	itle		Telep	hone
			ž.	i.
	y 			
6. Major Activit			1-1 Wa	rehouse
6. Major Activit SIC number Manufacturing		Office	∐ wa	
SIC number				sidential or Apt
SIC number	or Processing		☐ Re ☐ Ot	sidential or Apt her Attach Explanation
SIC number	or Processing	Hotel or Motel Hospital or Lab	☐ Re	her

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- Usage. Type of fuel burning equipment. Use codes (2*) at 6. If not listed put (5) and specify. bottom of form.
- Heat Usage. Percent of heat used for process and percent for 7. space heating.

Page 2, Form B

- Reference Number. Continue reference numbers from Page 1, using 8. same number to identify information for same unit.
- 9. Stack Parameters. Stack Height in feet from ground. Stack Inside Exit Diameter in feet. (SCFM may be used if Exit Gas Velocity in feet per second. velocity is not known; specify units as SCFM if used.) Exit Gas Temperature in degrees F.
- Fuel Data. Coal, Gas, #2 Oil, #6 Oil, etc. Fuel Type. Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify. Average Percent Sulfur Content. Average Percent Ash Content. (If percent sulfur and percent ash are not known, list fuel type

and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

	Company Name	FORM E	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal) Address	ismosal)		for Agency use Only	rage i
0	Operating Schedule	Information fo	Information for Calender Year	ard.	(e)		
200	Hours / Day Days / Week Weeks / Year	61	72				
2	e		4	s.	9	7	
Reference	Manufacturer and Mohel Number	mpar	Rated Capacity	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
Number		- C	20	7	2/0,	001	
	1* BURNER CODES				2* USAGE CODES	DES	
	 Cyclone furnace Pulverized coal Spreader Stoker Hand fired Other stoker (specify) 	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Actomizing Oil	e of Air) hanical)		1. Boiler, Ste 2. Boiler, Ott 3. Air Heatin 4. Air Heatin 5. Others (sp	Boiler, Steam Boiler, Other (specify) Air Heating for Space Heating Air Heating for Process Usage Others (specify)	

Percent Ash (FOR AGENCY USE ONLY) Fuel Data Supplier FORM B PAGE 2 Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

Carc Basis of Estimate Other (specify) (FOR AGENCY USE ONLY) Emissions (Tons/Year) 0.003 So2 Particulate Efficiency Actual Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment 12 Manufacturer and Model Number NONE Reference Number 1.1

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

PAGE 1			
SS OPERATIONS		Date	
FORM C MANUFACTURING PROCESS OPERATIONS	Address	Information for Calendar Year	19 72
	Company Name	Operating Schedule	A Hours / Days 365 Days / Year

Output*	ntity Quantity Hour Per Year	5,516		•						
Product	Quantity Per Hour	0.63								
Number of	Emission Points To Air	1								
Input	Quantity Quantity Per Hour Per Year	5,516								
Feed	Quantity Per Hour	0.63								
Rated Process	Capacity Tons/Hour	1.0							8	
	Process or Unit Operation Name	Consinuous that By HRA								
Doforono	Number	/		,						

FORM C PAGE 2

(FOR AGENCY USE ONLY)

				1.				10	1	
The second second	Efficiency	Actual								
ıt	Collection Efficiency	Design								
Air Pollution Control Equipment	Tvpe*	(use Table 1)								
Air Pollu	Manufacturer and Model Number		None							
The second second second	Exit Gas Temperature	o.								
Stack Data	Exit Gas Velocity	Feet/Sec.								
- 8	Inside Unit Dia.	Feet	0.35							
	Height	Feet	65							
	Number		/							

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)
*	×0
	_ =
	=

11	12		H M		
Reference Number		Process Emissions*	Others (Specify by chemical composition)	Basis for	(Agency Corments Only)
	Name Deserted	Sulfur Oxides	composition)	Estimation MEASULED AREA	(Agency Coments Only)
/	NONE INTERTED	N. D.		HPEH	
		· · · · · · · · · · · · · · · · · · ·			
			-		
			-		

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	-	Info	Information for Year		(Agency Use Only)
				2	
Address			Date		
					5
B Description of Waste Materials	ပ		۵		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	ŧ.	Amount Per Year (Tons)		1* Method of Disposal
Nove		9			
					, and the second
f Waste Disposal is by Incineration, Specify the Following:	the Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)		Rotary Flue Fed		•
2. Manufacturer's Name:					
Rated Capacity 3. Quantity Burned:	Pounds / Hour Pounds / Day	/ Hour / Day	γT	Type Waste	
4. Operating Schedule	Tons / Year Hours / Day	/ear Day			
	Days / Year	rear		*1 Disposal Method Codes	od Codes
			Open Burning Landfill (No Burning) Incinerator (Complete rest of Form)	st of Form)	5. Burned in Boiler or Furnance 6. Other (Specify)
			4. Conical Burner (TeePee)		

FORM D PAGE 2

(/	AGENCY	USE ONL	Y)	

5.	Auxiliary Fuel:	Туре	
		Amount/Year (Specify Units)	
		Heat Content	
		Percent Sulfur	
		Percent Ash	
		Supplier's Name	
6.	Pollution Control Eq	uipment: Manufacturer	
		Model Number	
	if .	% Efficiency	
		Туре	······································
		GPM Water Flow (If Wet Scrubber)	t - i - i - i - i - i - i - i - i -
7.	Stack Data:	Height	Feet
		Inside Exit Diameter	Feet
		Exit Gas Velocity	Feet/Sec.
		Exit Gas Volume	SCFM
		Exit Gas Temp.	°F.
8.	Estimated Emissions	From Refuse Incineration:	
	Name:	Basis of Estimates:	
	Particulat	esTons/Year	
	Sulfur Oxi	des "	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

 ${\bf 30\,Group-DRY\,SEPA\,RATORS\,AND\,FILTERS}$

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Hard Resins Area

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	thereunder.	
Issued this 6th	day of February	, 19 <u>74</u> .
	AIR AND WATER POLLUTIO	ON CONTROL COMMISSION
	Executiv	ve Director
Expires 6th	day of <u>February</u>	, 19 <u>77</u>
Facility No. <u>0800-0000</u>	<u>1</u> -015	
ADDITIONAL C	ONDITION IS ATTACHED	673

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ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-015

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AOCR:	

15 /18

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8

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

			Пэ	te Submitt	ed
1. Owner of Sour			Da	- Subilities	
		County	(U ⁻	Location TM or LAT-L	.ong)
	-				
3. City	State	Zip Cod	e	Teleph	one
4. Name of Perso	on Completing Form		Titl	е	
E Powson to Co	ntact on Air Pollu	tion Matters			
5. Person to Con	ntact on Air Fortu	CTOD PACCETS			
			Telep	ohone	
			Telep	ohone	
			Telep	ohone	
6. Major Activi	ty		Telep	ohone	
6. Major Activi	ty			ohone	
6. Major Activi SIC number	ty	Office	Wa	arehouse	or A
6. Major Activi SIC number	ty g or Processing []	Office Hotel or Motel	☐ Wa	arehouse esidential	
6. Major Activi SIC number Manufacturing Retail or W	ty g or Processing []	Office Hotel or Motel Hospital or La	☐ Wa	arehouse esidential	
6. Major Activi SIC number Manufacturing Retail or W	ty g or Processing [] Tholesale Store [] Thurch []	Office Hotel or Motel Hospital or La	☐ Wa	arehouse esidential ther (Attach Exp	

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters. Stack Height in feet from ground. Stack Inside Exit Diameter in feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.) Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel types.)

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM B	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT isposal)			Page 1
	Company Name		Address			for Agency use Only	July
	Operating Schedule	Information fo	Information for Calender Year	Date			
412	Hours / Day Days / Week Weeks / Year	.]	72				
2	m		4	s.	9		7
Reference	Manufacturer and Mobel Number	, in	Rated Capacity	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
1	STRUTHERS-WELLS Day BOL	Bones #7618	83	9	2 (DOWTHERM)	100	
	တ္				2* USAGE CODES	DES	
	1. Cyclone furnace 6. 1 2. Pulverized coal 7. 1 3. Spreader Stoker 8 4. Hand fired 9 5. Other stoker (specify) 10. 11. (1)	6. Nultiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 10. Atomizing Oil (Mechanical) 11. Others (specify)	of Air) anical)		Boiler, Steam Boiler, Other (specify) Air Heating for Space I Air Heating for Process Others (specify)	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

USE ONLY)		Percent Stiffin Ash	=) p.conto					ē					
(FOR AGENCY USE ONLY)	Fuel Data		5930 (NEF) 1025 (SCI							!		ľ	
FORM B PAGE 2			8.1 (mer)					Supplier					
ŭ.		Exit Gas Temperature Degree F.	NAT. GAS										
	Stack Parameters	Inside Exit Gas Exit Dia. Velocity Terror Feet Feet Dia Dia Dia Dia Dia Dia Dia Dia Dia Dia						Fuel Type					
	\$	Stack Height Feet						FUEL SUPPLIERS:	- (- VI	•	
		Reference Number	\										

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number NONE Reference Number 7

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

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) ,	ě		7	1	 7	'n	
				Product Output *	Per Year	13,217	•										
				Product (Quantity	Per Hour	1.5											
				Number of Emission Points	To Air												
	-	Date		Feed Input	Per Year	13,217											
				Feed	Per Hour	1.5											
Address		Information for Calendar Year				10.											
	·	Information fo															
	1		365 Days / Year Process or Unit Operation Name														
Company Name		schedule															
Compa		Operating Schedule	Hours / Days			4400											
O			the the	Reference	Number	1		,									

*Specify Units of Measure Used

FORM C PAGE 2

(FOR AGENCY USE ONLY)

ı	l				1	ı	1	ı	,0	1	ı	ı	ĺ
	Efficiency	Actual											
t	Collection Efficiency	Design											
Air Pollution Control Equipment	Tvna*	(use Table 1)	1/4										
Air Pollut	Manufacturer and Model Number		HERCALES										
	Exit Gas Temperature	ЭĢ											
Stack Data	Exit Gas Velocity	Feet/Sec.	6.5										
	Inside Unit Dia.	Feet	1.0										
	Heicht	Feet	1.0										
,	Reference Number		1										

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM D REFUSE DISPOSAL AND INCINERATION

		Information for Voca		(Agency Use Only)
Company Name	ЭE			
Address		Date		
£2.	-			
B Description of Waste Materials	ပ	Q .		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	nt Amount Per Vear	r Vear	1* Method of Disposal
Nowe				
f Waste Disposal is by Incineration, Specify the Following:	fy the Following:			*1
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe) Other (describe)	Rotary Flue Fed		
2. Manufacturer's Name: Model Number				
Rated Capacity 3. Quantity Burned:	Pounds / Hour	Pounds / Hour Pounds / Day	Type Waste	
	Tons / Year	Year		
4. Operating schedule	Days / Year	Year	*1 Disposal P	*1 Disposal Method Codes
		1. Open Burning		5. Burned in Boiler or Furnance
		2. Landfill (No Burning)	Burning)	6. Other (Specify)
		3. Incinerator (Complete re 4. Conical Burner (TeePee)	 Incinerator (Complete rest of Form) Conical Burner (TeePee) 	

FORM D PAGE 2

				71		
5.	Auxiliary Fu	ıel:	1	уре		
			P	mount/Year (Specify Unit	s)	
			Н	leat Content		
			Р	ercent Sulfur		
			Р	ercent Ash		
			S	upplier's Name		
6.	Pollution Co	ntrol	Equipment:	Manufacturer		JI.
				Model Number		
				% Efficiency		
				Туре		
			*	GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:			Height		_ Feet
			,	Inside Exit Diameter	· · · · · · · · · · · · · · · · · ·	Feet
				Exit Gas Velocity		Feet/Sec.
				Exit Gas Volume		SCFM
				Exit Gas Temp.		°F.
8.	Estimated Emi	issions	From Refuse	: Incineration:		
	Nam	ne:			Basis of Estimates:	
	Par	rticula	ites	Tons/Year		

Sulfur Oxides

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon — regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter —

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

Hattiesburg, Mississippi has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Truline Flaking Belt & Packing Area

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 <u>oth</u>	day of <u>Fehruary</u> , 19 74 .
- V	ALD AND WATER CO.
	AIR AND WATER POLLUTION CONTROL COMMISSION
	Sleulbox Jr.
	Executive Director

Expires 6th day of February , 19 77

Facility No. __0800-00001-014

MPC FORM ADDITIONAL CONDITIONS ARE ATTACHED

672

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-014

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AOCR:	

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	4	RAL INFORMATION	1									
1. Owner of Source			Date	Submitted								
2. Mailing Address	,	County		Location								
	5			<u> </u>								
3. City	State	Zip Code		Telephone								
9												
4. Name of Person C	ompleting Form		Title									
		×										
5. Person to Contact on Air Pollution Matters												
Titl	e		Telephone									
			¥									
6. Major Activity												
SIC number		Office	∏ Ware	house								
Retail or Whole	sale Store	Hotel or Motel	Resi	dential or Apt								
School or Churc	h 🗀	Hospital or Lab	Othe (A	er ttach Explanation)								
7. Signature of Own	er or Authorized	i Company Offici	al	Date								

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet,
 etc. Specify. Average amount Burned per Year. Gallons, Tons,
 Million cubic feet, etc. Specify. Heat Content of Fuel. BTU
 per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type
 and supplier's name at bottom of page in spaces provided so that
 information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Number Address For Agenta For Agenta Information for Calender Year Date G G G G G G G G G			FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT isposal)			Page 1
Operating Schedule Information for Calender Vear Date Hours Days Week Bays Week Vear Bays Week Codes Bays Week Vear Bays Week Vear Bays Week Vear Bays Week Codes Bays Week Vear Bays		Company Name		Address			for Agency use Only	hily
Hours / Day Hours / Day Hours / Vaek 19 A			-	2	-			
Hours / Day Week Toward Week	Ope	rating Schedule	Information for	or Calender Year	Date	132		
Manufacturer and Mobel Number Rated Capacity Type of Burner Unit Usage code 2**)		Hours / Day Days / Week Weeks / Year	19_	-				
Nanufacturer and Mobel Number Rated Capacity Type of Burner Unit (1986 codd 2*) N Process	2	8		4	2	9		7
1* BURNER CODES 1. Cyclone furmace 6. Multiple port gas 2. Pulverized coal 7. Forced draft gas 2. Pulverized coal 7. Forced draft gas 2. Pulverized coal 7. Forced draft gas 3. Pulverized coal 7. Forced draft gas 3. Pulverized coal 7. Forced draft gas 3. Forced gas 3. Forced gas 3. Forced gas 3. Forced gas 3. Forced gas 3. Fo	Reference	Manufacturer and Mobel Nu	mber	Rated Capacity 10 ⁶ BTU/hr	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
6. Multiple port gas 7. Forced draft gas		None						
6. Multiple port gas 7. Forced draft gas								6.
6. Multiple port gas 7. Forced draft gas								
6. Multiple port gas 7. Forced draft gas								
6. Multiple port gas 7. Forced draft gas								
6. Multiple port gas 7. Forced draft gas								
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6. Multiple port gas 7. Forced draft gas								
6. Multiple port gas 7. Forced draft gas								
6. Multiple port gas 7. Forced draft gas		1* BURNER CODES				2* USAGE CC)DES	
8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil		<u>2</u>	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil	e of Air) hanical)		1. Boiler, Ste 2. Boiler, Ott 3. Air Heatin 4. Air Heatin 5. Others (sp	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

Percent Ash Percent Sulfur (FOR AGENCY USE ONLY) Heat Content BTU/Gal, etc. (Specify Units) Fuel Data Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) Supplier **FORM B PAGE 2** Fuel Type Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

(FOR AGENCY USE ONLY) FORM B PAGE 3

			1)	ı	ı	1	ŀ	0	1	1	
Basis	of Estimate											
	ear)	Other (specify)										
	Emissions (Tons/Year)	So2										
13	Emi	Particulate										
	750	Actual										
	Efficiency	Design										
	ment	Type* (Use Table 1)										
12	Air Pollution Control Equipment	Manufacturer and Model Number										
11	Reference	Number										

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

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MANUFACTURING PROCESS OPERATIONS
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	Date	Feed Input Number of Product Output* Quantity Quantity Emission Points Quantity Per Year To Air Per Hour Per Year	3.4 12391 2 3.4 1s
Address	Information for Calendar Year	Rated Process Capacity Tons/Hour	TRWINE 3.5
Company Name	Operating Schedule Hours / Days Blogs / Year That ex mittent	Process or Unit Operation Name	FLAKING & TANKARING MY
	14 Hour	Reference Number	

FORM C PAGE 2

(FOR AGENCY USE ONLY)

DO # 13 Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number Exit Gas Temperature 0F Exit Gas Velocity Feet/Sec. Stack Data Inside Unit Dia. Feet 25 Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

11	12	Process Emissions*			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
14	None Detected	ND			
A B	"	p	*		DUST COLLECTE
					POR APP #13
	<u> </u>				
			1		
					15. 53.
					
			+		-

(FOR AGENCY USE ONLY)

FORM C PAGE 3

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	20	<u>-</u>	Information for Year		(Agency Use Only)
		,		5	
Address			Date		
			-		
B Description of Waste Materials	ပ		Q		ш
Type (Describe)	Bevinnin Amen Per Dav Pound	2 5	Amount Per Year (Tons)		1* Method of Disposal
NONE					
If Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip	he Following: single chamber multiple Chamber		Rotary		
	Other (describe)			1	
2. Manufacturer's Name: Model Number					
Rated Capacity 3. Quantity Burned:	Pounds / Hour Pounds / Dav	/ Hour	Тур	Type Waste	
4. Operating Schedule	Tons / Year	Year			
	Days / Year	Year	*	*1 Disposal Method Codes	hod Codes
				•	5. Burned in Boiler or Furnance
			2. Landfill (No Burning)	t of Form)	6. Other (Specify)
			4. Conical Burner (TeePee)		ū

FORM D PAGE 2

(AGENCY USE ONLY)	

5.	Auxiliary	Fuel:	Туре	
			Amount/Year (Specify Units)	
			Heat Content	·
			Percent Sulfur	
			Percent Ash	
			Supplier's Name	
6.	Pollution	Control Equipment:	Manufacturer	e e
			Model Number	N II
			% Efficiency	
			Туре	
			GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:		Height	Feet
			Inside Exit Diameter	Feet
			Exit Gas Velocity	Feet/Sec.
			Exit Gas Volume	SCFM
			Exit Gas Temp.	o _F .
8.	Estimated	Emissions From Ref	use Incineration:	
		Name:	Basis of	Estimates:
	-	Particulates	Tons/Year	
		Sulfur Oxides		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones 32 settling chamber 33 simple filters

34 baghouse (shaking) 35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles

42 wet cyclones - rotocione

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	· · · · · · · · · · · · · · · · · · ·
Facility No.:	
AOCR:	

#13 PV onfill

2 3 2

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	FORM A GEN	IERAL INFO	RMATION			
1. Owner of Source		· · · · · · · · · · · · · · · · · · ·		Dat	e Submitt	ed
		(ar)				
2. Mailing Address	54.0	Coun	ty	(UT	Location M or LAT-L	.ong)
	e e		. *			
3. City	State	Z	ip Code		Teleph	one
ē III	12	4				
4. Name of Person C	ompleting Form	77	3	Title		
5. Person to Contac	t on Air Pollu	tion Matte	rs		II.	
		7 ×	8			
Titl	e		1	[eleph	one	
			ь			s
6. Major Activity						
SIC number		Office	Γ] War	rehouse	
Retail or Whole	esale Store 📘	Hotel or	Motel [Res	sidential	or Apt
School or Churc	ch <u></u>	Hospital	or Lab] Oti	ner Attach Exp	lanation)
7. Signature of Own	ner or Authoriz	ed Company	/ Official		Date	
	Χ. –					
				Title		

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Company Name Address Operating Schedule Information for Calender Year Date Hours / Neeks / Year Neeks / Year Manufacture and Mobel Number Retel Capacity Type of Burner Unit umber MANY E. **CANE*** **CANE*** **CANE*** **CANE*** **CANE*** **CANE*** **CANE*** **CANE*** **CANE*** **CANE*** **CANE*** **CANE** **		
Operating Schedule Information for Calender Year Hours / Day Days / Week Days / Week Weeks / Year Manufacturer and Mobel Number MONE M		for Agency use Only
Peer Manufacturer and Mobel Number Operating Schedule Hours / Day Bays / Week 3 4 And ADNE MONE MONE		
Hours / Day Days / Week Weeks / Year 3 4 Manufacturer and Mobel Number ACME MANUFACTURE MANUFACTURE 10 ⁶ BTU/hr 10	93	
Manufacturer and Mobel Number Manufacturer and Mobel Number MONE MONE		
Manufacturer and Mobel Number 106BTU/hrs 106BTU/hrs	9	7
NONE	ner Unit Usage 31*)	Most Usage % Soace heat
	ļ	-
1* BURNER CODES	2* USAGE CODES	ş.
1. Cyclone furnace 6. Multiple port gas 2. Pulverized coal 7. Forced draft gas 3. Spreader Stoker 8. Atomizing Oil (Nechanical) 4. Hand fired 10. Robary Cup Oil	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space I 4. Air Heating for Process	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)

Percent Ash Percent Sulfur Ŷ, (FOR AGENCY USE ONLY) Heat Content BTU/Gal, etc, (Specify Units) Fuel Data Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) Supplier FORM B PAGE 2 Fuel Type Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number 11

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion

03 boiler firebox 04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative 11 activated carbon — regenerative 12 silica gel - nonregenerative 13 silica gel - regenerative 14 lithium chloride 15 activated alumina

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

16 activated bauxite

Particulate Matter -**Liquid Mist Control Equipment**

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group - Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Pitch-Blowing 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	6th_	day of	_ February	, 19 <u>74</u> .
			8.4	

AIR AND WATER POLLUTION CONTROL COMMISSION

Executive Director

Expires 6th day of February , 19 77 .

Facility No. ___0800-00001-012

MPC FORM ADDITIONAL CONDITIONS ARE ATTACHED

671



State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Pitch-Blowing 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.

adopted and promulgated the	ereunder.	
Issued this 6th	day of February ,19 74 .	
	AIR AND WATER POLLUTION CONTROL CO	MMASION
	Executive Director	18,
Expires 6th	day of <u>February</u> , 19 <u>77</u> .	
Facility No0800-0000	1-012	

MPC FORM DITIONAL CONDITIONS ARE ATTACHED



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-012

- 14. Records of the operation of this facility must be kept and must show the duration of operation (time & dates) and amount of material processed. These records must be available to the Mississippi Air & Water Pollution Control Commission upon request.
- 15. If odors from this facility should ever result in justifiable and verifiable complaints being filed with the Mississippi Air & Water Pollution Control Commission, this facility may be required to control emissions of odorous substances to a degree greater than is now being achieved.



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION ?

This Space For Use By Approving Agency

Date Received:	
Facility No.:	_
AOCR:	

#12 Proch Slowing Occs 1/2.

, 51 JA

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FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Sour	CB			ate Submitt	ed
1. Owner of Sour					
2. Mailing Addre	SS	County	(1	Location UTM or LAT-L	.ong)
3. City	State	Zip	Code	Teleph	one
				1	
4. Name of Perso	n Completing Form	4	Ti	tle	
					
5. Person to Cor	tact on Air Pollut	tion Matters			
		1			
	itle		Tel	ephone 	
			5)		*
6. Major Activit	у				
SIC number		Office		Warehouse	
SIC number					or
SIC number	or Processing nolesale Store		otel 🗍		
SIC number	or Processing nolesale Store	Hotel or M	otel 🗍	Residential Other	

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

			ı		(٠			
			Percent Ash	0	11		•									
ONLY)			Selsan.	D. ATOVE	"											
(FOR AGENCY USE ONLY)		Fuel Data		1025 (SEF)	*											
	-	Fue		40.790 ME	"							1	1	1	ł	
FORM B PAGE 2				9.3 mer	1					Supplier						
FORM B				NAT GAS	1											
			Exit Gas Temperature Degree F.							уре						
		Stack Parameters	Exit Gas Velocity Feet/Sec.							Fuel Type						
		Stack P.	Inside Exit Dia. Feet	2.0	2.0					JERS:						
			Stack Height Feet	40	40					FUEL SUPPLIERS:						
			Reference Number	1	7											

CAUC Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) 0.002 So2 11 Particulate 1 Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number None 1 Reference Number -

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

OPERATIONS
MANUFACTURING PROCESS
FORM C N

			\bigcirc	j 1	,	2	ı	1	.			1	1	1	1	1	ì	ı	
	i			Output *	Quantity Per Year	7,280	"												
				Product Output*	Quantity Per Hour	0.0	1												
				Number of	Emission Points To Air	\	"												
		Date		hout	tity Quantity our Per Year	7.280	"												
				Feed	Ouantity Per Hour	8.0	1												
Address		Information for Calendar Year	19 72	Rated Process	Capacity Tons/Hour	1.2	*												
		Information			Name	/#	1												
Company Name		Operating Schedule	Hours / Days / Year		Process or Unit Operation Name	Poin BLOWING KETTE	//												
)	Joh Hou		Reference Number		7	8											

FORM C PAGE 2

(FOR AGENCY USE ONLY)

anie II	Evit Can	100	Air Pollu	Air Pollution Control Equipment	ıt	
	Velocity	Exit Gas Temperature	Manufacturer and Model Number	Type*	Collection	Collection Efficiency
Feet	Feet/Sec.	96		(use Table 1)	Design	Actual
0	8.01	445	Bonel House STACK	60		
*	*	*	*	1		
2	l	ARE VENTED INTO	THESE STACKS			
DOOK CO.	CONTROL R FLOW	coury.	Exem wood BoiceRS			

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C	PAGE 3	(FOR AGENCY USE ONLY)

11	12	2			1
Reference Number		Process Emissions*	Others (Specify by chemical composition)	Basis for	(Agency Corments Only)
,	Nove Detected	Sulfur Oxides	composition)	Estimation	
/	NONE VETERED	WAKNOWN			
		. 101			
	1				
				-	
				 	
				+	
				1	

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Belng Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

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(Agency Use Only)	8		ш	1* Method of Disposal				Type Waste	*1 Disposal Method Codes 5. Burned in Boiler or Furnance 6. Other (Specify) rest of Form)
Information for Year		Date	a	Amount Per Year (Tons)			Rotary Flue Fed	Тур	*1 Disposal N 1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)
16			U	Maximum Amount Per Day (Pounds)			he Following: single chamber multiple Chamber Modified (describe) Other (describe)	Pounds / Hour Pounds / Day Tons / Year	Hours / Day Days / Year
Company Name	9	Address	B Description of Waste Materials	Type (Describe)	NONE		Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modif Other	2. Manufacturer's Name: Model Number Rated Capacity 3. Quantity Burned:	4. Operating Schedule

FÖRM D PAGE 2

(AGENCY	JSE ONLY)	

5.	Auxiliary	Fuel:		Туре	18	
				Amount/Year (Specify Unit:	s)	
				Heat Content		
				Percent Sulfur	*****	
				Percent Ash		
				Supplier's Name		
6.	Pollution	Control	Equipment:	Manufacturer		17
				Model Number		
				% Efficiency		
				Туре		
				GPM Water Flow (If Wet Scrubber)		· • • • • • • • • • • • • • • • • • • •
7.	Stack Data:			Height		_ Feet
				Inside Exit Diameter		Feet
				Exit Gas Velocity		Feet/Sec.
				Exit Gas Volume		SCFM
				Exit Gas Temp.		o _F .
8.	Estimated	Emission	ns From Refus	se Incineration:		
		Name:			Basis of Estimates:	
		Particul	ates _	Tons/Year		
		Sulfur (xides	11		

TABLE 1 **CODE NUMBERS FOR CONTROL DEVICES**

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber — with baffles

42 wet cyclones - rotocione

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group - Other Specify

State of Mississippi Air and Water Pollution Control Commission

To Operate Air Emissions Equipment

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

Hattiesburg, Mississippi has been granted permission to operate Air Emissions Equipment in connection with the Package Boiler No. 5 operation of the plant or 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.

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.

·	the same		The same of the sa	
Issued this	6th	_ day of <u>February</u>	, 19 <u>74</u>	-•
		AIR AND WATER PO	DLLUTION CONTRO	L COMMISSION
			Executive Director	may).
Expires	6th	_ day of _ February	, 19 <u>77</u>	- •
Facility No	0800-0000	1-011		
MD0 500M				670

MPC FORM



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:

Facility No.:_____

AQCR:_____

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

		FORM A	GEN	ERAL INFO	RMATION			
1.	Owner of Source		· · · · · ·			Date	Submit	ted
	Mailing Address			Count	ty		Location or LAT-l	_ong)
3.	City	State	e.	Z	ip Code		Teleph	none
4.	Name of Person (Completing I	Form	Col		Title		1
5.	Person to Contac	ct on Air Po	ollut	ion Matter	rs .			
		-			1	[e]epho	one	
6.	Major Activity				1			19
SIC	number Manufacturing or	— Processing		Office	Ε] Ware	ehouse	
	Retail or Whole	esale Store		Hotel or	Motel [Resi	idential	or Ap
	School or Churc	ch		Hospital	or Lab 📘] Othe	er ttach Exp	lanatio
7.	Signature of Ow	ner or Auth	orize	d Company	Official		Date	

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

acturer and Mobel Number S. E. Erwick M. Flack R. CODES B. Multiple pour Refurnace 7. Forced draft 8. Atomizine	FORM B FUEL BURNING EQUIPMENT (Except for Defined Disposal)	Address for Agency use Only	Information for Calender Year Date	19.73	4 5 6 7	Rated Capacity Type of Burner Unit Usage Most Usage M		5*	
	FORM	Company Name	Operating Schedule Information		3	Manufacturer and Mobel Number			

FORM B PAGE 2

(FOR AGENCY USE ONLY)

		Stack	Stack Parameters				Œ	Fuel Data	20	
Reference Number	Stack Height Feet	Inside Exit Dia. Feet	Exit Gas Velocity Feet/Sec.	Exit Gas Temperature Degree F.	Fuel Type	Maximum Amount Per Hour (Specify Units)	Amount Per Year (Specify Units)	Heat Content BTU/Gal, etc. (Specify Units)	Percent Sulfur	Percent Ash
1	11	ίτί	167 4/8 100.44(?)	9/76 JCT 360	NAT, GRS	70W 19	WHOO MET		0	0
				-	Fuer Oir (#6)	350 Gm	2.880 Men		2.23	NIE
ļ							10			
			-							
	FUEL SUPPLIERS:	LIERS:	Fuel Type	Урв		Supplier				
							•			
							1			
							1			
					1					

CALC. Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number 1.1

*For Wet Scrubber give Gallons per minute Water Flow and Weter Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

MANUFACTURING PROCESS OPERATIONS	Address
FORM C	

PAGE 1

						v	E	. (
			Output*	Quantity Per Year		-						
			Product	Quantity Quantity Per Hour Per Year								
			Number of	Emission Points To Air								
	Date		Input	tity Quantity our Per Year								
			Feed	Quantity Per Hour								
Address	Information for Calendar Year		Rated Process	Capacity Tons/Hour								
	Information f	19		lame.								
Company Name	Operating Schedule	Hours / Days Days / Year		Process or Unit Operation Name	None							
	0	Hou	Reference	Number								

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number Exit Gas Temperature 0F Stack Data
Exit Gas
Velocity
Feet/Sec. Inside Unit Dia. Feet Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C	PAGE 3		(FOR AGENCY USE ONLY)	
		İ		1

12 11 Process Emissions* Reference Number Others (Specify by chemical composition) Basis for Estimation (Agency Corments Only) **Particulates** Sulfur Oxides

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

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(Agency Use Only)		ш	1* Method of Disposal							Type Waste	*1 Disposal Method Codes 5. Burned in Boiler or Furnance 6. Other (Specify)
Information for Year	Date	٥	Amount Per Year (Tons)			125		Rotary Fiue Fed			*1 Disposal N 1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form)
93		υ	Maximum Amount Per Day (Pounds)			3	the Following:	single chamber multiple Chamber Modified (describe)		Pounds / Hour Pounds / Day Tons / Year	Days / Year
Company Name	Address	B Description of Waste Materials	Type (Describe)	Nowe			f Waste Disposal is by Incineration, Specify the Following:	1. Type of Incinerator:	2. Manufacturer's Name:	Rated Capacity 3. Quantity Burned: 4. Operating Schedule	

FORM D PAGE 2

(AGENCY USE ONLY)

			0		
5.	Auxiliary Fuel:	۲J	уре		
		An	mount/Year (Specify Unit:	s)	
		Не	eat Content	4	
		Pe	ercent Sulfur		
		Pe	ercent Ash		
		Su	upplier's Name		il il
6.	Pollution Control	Equipment:	Manufacturer		
			Model Number		
			% Efficiency		
			Туре		
	49		GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:		Height		_ Feet
			Inside Exit Diameter		Feet
			Exit Gas Velocity		Feet/Sec.
			Exit Gas Volume		SCFM
			Exit Gas Temp.		o _F .
8.	Estimated Emission	s From Refuse	Incineration:		
	Name:			Basis of Estimates:	
	- Particul	ates	Tons / Vear		

Sulfur Oxides

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

16 activated bauxite

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers) 46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 27, 1974

PILE



AIR & WATER POLLUTION CONTROL COMMISSION

Air and Water Pollution Control Commission State of Mississippi P. O. Box 827 Robert E. Lee Building Jackson, Mississippi 39205

Attention: Mr. Wayne B. Anderson

Gentlemen:

TOLERANCE PERMITS COMPLIANCE SCHEDULE

We have received the 31 air emissions equipment operating permits for our various facilities as well as the two Tolerance Permits for the wood burning boiler stacks. The purpose of this letter is to submit a compliance schedule for correcting these stacks.

We have four wood burning boilers, boilers 1 and 2 connected to the south Power House stack and 3 and 4 connected to the north Power House stack. Compliance will be achieved via three routes:

- (1) Reduced load
- (2) Improved firing
- (3) Increased stack surveillance

Presently we have three approved projects which will reduce the steam load. Basically these three projects either use another source of heat to reduce the steam load or else return energy to the Power House and, thereby reducing the fuel requirements in the boilers.

Recent tests in our No. 4 boiler have indicated that inadequate air is being introduced into certain parts of the firebox and too much in other parts. We plan to rectify this situation by installing additional air nozzles in the firebox and by closing up all openings which allow air to by-pass the fire box.

Our present boilers are capable, on the average, of producing the steam requirements of the plant without smoking excessively. Unfortunately, the fuel (spent wood) from an extractor is not delivered to the Power House evenly, and, therefore, the fuel air mixture gets out of



Air and Water Pollution Control Commission February 27, 1974 Page 2

balance and causes smoke greater than No. 2 Ringelmann to be emitted from the stacks more than the legal time. It is planned to correct this situation by improving the surveillance by installing a TV camera which will be directed on the stacks. The receiver will be in the control room. In addition, smoke density meters already installed will be revised by relocating indicator lights in the control room.

It should be noted that these four boilers are consuming a waste wood fuel and are saving tremendous amounts of petroleum fuel by generating the necessary steam to run over 50% of the operations at the Hattiesburg plant. An added benefit of this fuel is its lack of sulfur content so that the combustion gases contain no oxides of sulfur such as are obtained with some coal and oil fuels. Thus with the current energy crisis, it is felt that all regulatory agencies should aid us in our efforts to maintain the operability of these units.

The schedule for the above is given in Table I attached.

We will await your acceptance of this schedule before proceeding to submit plans to the Commission for approval.

Very truly yours,

Fred K. Lane
Plant Engineer

FKL/de

Attachment

cc: S. Fenelon - Organics Dept., Wilm.

R. E. Chaddock - Envr. Eng., Wilm.

J. K. Farrell - Organics Dept., Wilm.

J. K. Read - Hattiesburg

P. B. Holliman -

F. H. Gardner, Jr. - "

R. A. Ferguson - '

J. B. Rester - "

I. L. Furr, Jr. - "

v e

Remarks	Project approved by Hereni - under construction.	Project approved by Hercuis - under construction.	Project approved by Hard	Project to be submitted to Hercules management for approval.	Project to be submitted to Hercules management for approval.
Compliance			June-July, 1975		
Construction	9/1/74	10/1/74	9/11/74	5/1/75	3/1/75
Equipment Delivery and Construction Start-Up	5/1/74	10/1/74	5/1/74	9/1/74	12/1/74
Equipment Ordered	2/4/74	2/28/74	2/7/74	5/1/74	7/1/74
Submittal of Plans for Control	n 4/15/74	4/15/74	4/15/74	4/15/74	4/15/74
Item	Condensate Collection 4/15/74	Utilities Utilization	Hydrogen Cooling	Improved Boiler Firing	Increased Stack Surveillance

TABLE I

State of Mississippi Air and Water Pollution Control Commission

TOLERANCE

To Operate Air Emissions Equipment
This Certifies That
Hercules Incorporated
Hattiesburg Plant
West 7th Street

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

operation of the plant or process Wood Boilers Nos 3 & 4

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act. (Mississippi) Laws, 1966-ph. 258) and the rules adopted and promulgated the reunder, or this permittional 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.

Issued this 616 day on Lebouary 1974

ATR AND WATER POLLUTION CONTROL COMMISSION

Executive Director

Expires 6th day of May ,19 74

Facility No. 0800-00001-010

№ 2931



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

1 16

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	 	
Facility No.:	···	
AOCB.		

10 3 d Head From

* *

2 0

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.

 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	FORM A GENERAL	INFORMATION	
1. Owner of Source			Date Submitted
2. Mailing Address		County	Location (UTM or LAT-Long)
3. City	State	Zip Code	Telephone
3			
4. Name of Person Cor	npleting Form	1	itle
5. Person to Contact Title	on Air Pollution		el ephone
77000			-
6. Major Activity			
SIC number Manufacturing or Pro	ocessing	fice 📙	Warehouse
Retail or Wholes	ale Store 📘 Ho	tel or Motel 📙	Residential or Apt
School or Church	<u> </u>	spital or Lab 🛗	Other (Attach Explanation)
7. Signature of Owne	r or Authorized Co	ompany Official	Date
Type or Print Name of	Signer	-	Title
		······································	

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type)

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT isposal)			Page 1
	Company Name		Address			for Agency use Only	hiy
	Operating Schedule	Information fc	Information for Calender Year	Date	si.		
470	Hours / Day Days / Week Weeks / Year	19	at				
2	8		4	S	9	7	7
Reference	Manufacturer and Mobel Number	mber	Rated Capacity	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
	Tree Saure Strate						
	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	e of Air)		2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space 4. Air Heating for Process 5. Others (specify)	USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

FORM B PAGE 2

(FOR AGENCY USE ONLY)

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) 802 Particulate Actual Efficiency Design 92 Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment 12 Manufacturer and Model Number Reference Number 11

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

			1		1	1	•	1	I	9)	ı	I	ı	١	I	-
				Product Output* nantity Quantity rr Hour Per Year													
				Product C Quantity Per Hour													
				Number of Emission Points To Air													
	Date			Feed Input Quantity Per Hour Per Year													
	-			Feed Quantity Per Hour													
Address	Information for Calendar Year			Rated Process Capacity Tons/Hour													
	Information f	19		ле													
Company Name	Operating Schedule	Hours / Days Days / Year		Process or Unit Operation Name	None												
	J	Houl		Reference Number													

FORM C PAGE 2

(FOR AGENCY USE ONLY)

1	ı			ì	•		I	I	ı) 	22	i	I
	Collection Efficiency	Actual	4										
1		Design											
Air Pollution Control Equipment	TVD6*	(use Table 1)											
Air Pollu										:	95		
	Manufacturer and Model Number					6			iii				
	Exit Gas Temperature	Jo .											
Stack Data	Exit Gas Velocity	Feet/Sec.											
	Inside Unit Dia.	Feet											
	Height	Feet											
Doforongo	Number												

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)

11		12			
		Process Emissions*			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Comments Only)
			=		1/4
	ii ii		<u> </u>		
			-		
			70		
		2			
			11		

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name		Inform	Information for Year	(Agency	(Agency Use Only)
		=	:	,	
Address			Date		
			P		e e
B Description of Waste Materials	၁	w 13	۵		ш
Type (Describe)	Maximum Amount Per Day (Pounds)	# C	Amount Per Year (Tons)	Meth	1* Method of Disposal
ISHES, CLINKERS, FLY HSH	30,312		5,532		8
	1		140		
Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modif Other	the Following: single chamber multiple Chamber Modified (describe)		Rotary ☐ Flue Fed ☐		
2. Manufacturer's Name:					
Rated Capacity 3. Quantity Burned: 4. Operating Schedule	Pounds / Hour	/ Hour / Day fear Day	Τ/Λ	Type Waste	8
	Days / Year	(ear	*1 Disposal N 1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	Nethod C	odes 5. Burned in Boiler or Furnance 6. Other (Specify)

FORM D PAGE 2

0	
(AGENCY USE ONLY)	

5.	Auxiliary Fuel:	Туре	
	•		
		Heat Content	
		Percent Sulfur	
		Percent Ash	
		Supplier's Name	
6.	Pollution Control Equipment:		
		Model Number	
		% Efficiency	
		Type	
		GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:	Height	Feet
	*	Inside Exit Diameter	Feet
		Exit Gas Velocity	Feet/Sec.
		Exit Gas Volume	SCFM
		Exit Gas Temp.	o _F .
8.	Estimated Emissions From Ref	use Incineration:	
	Name:	Basis of Es	stimates:
	Particulates	Tons/Year	
	Sulfur Oxides	11	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative 11 activated carbon — regenerative 12 silica gel — nonregenerative

13 silica gel — regenerative

14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter —
Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber — with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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

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.

g an los	
Issued this 6th	day of <u>February</u> , 19 74.
	AIR AND WATER POLLUTION CONTROL COMMISSION
	Exelloso y.
	Executive Director
Expires 6th	day of February, 19 77.
Facility No. <u>0800-00001</u>	-008

MPC FORM



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	 	
Facility No.:	 	
AOCR:		

#8 Rosen Shek D

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address.
 Address for plant location--not address of company headquarters. County in which plant is located. Location
 by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

FORM A GENERAL INFORMATION								
1. Owner of Source				Da	te Submit	ted		
2. Mailing Address		Cou	nty	(U	Location TM or LAT-	Long)		
	10	8						
3. City	State		Zip Code		Telep	hone		
4. Name of Person (Completing Form			Titl	e			
*								
5. Person to Contac	t on Air Pollut	ion Matt	ers	*				
Titl	е	i		Telep	hone	-		
2			81					
6. Major Activity								
SIC number	Processing	Office	1	Wan	rehouse			
Retail or Whole	sale Store 🔲	Hotel or	r Motel]	Re	sidential	or Apts		
School or Churc	h 🗀	Hospita	l or Lab]		her Attach Exp	lanation)		
7. Signature of Own	er or Authorized	d Company	y Official]	Date			
4		e e		14				
Type or Print Name o	f Signer			Title	e 			
<u></u>								

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM B	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	:OUIPMENT			Page 1
	Company Name		Address	ď		for Agency use Only	ly.
		· · · · · · · · · · · · · · · · · · ·					
			Я	14			
O	Operating Schedule	Information fo	Information for Calender Year	Date			2.8
	Hours / Day Days / Week Weeks / Year	19	ì				(a)
2	3		4	5	9	7	
Reference	Manufacturer and Mobel Number	umber	Rated Capacity 10 ⁶ BTU/hr b	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	% Space heat
	Now						
				1			
							To the second se
			5				
	1* BURNER CODES				2* USAGE CODES	DES	
	(<u>}</u>	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	of Air) anical)		1. Boiler, Steam 2. Boiler, Other (3. Air Heating fo 4. Air Heating fo 5. Others (specif	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	
		II. Culers (Speciny)				10.	

Percent Ash Percent Sulfur (FOR AGENCY USE ONLY) Heat Content BTU/Gal, etc, (Specify Units) Fuel Data Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) Supplier **FORM B PAGE 2** Fuel Type Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

F T	Basis	-stimate		•	•				
[A)		Other pacify)							-
(FOR AGENCY USE ONLY)	Emissions (Tons/Year)	802							
(FOR AC	Em	Particulate							
	Efficiency	Actual							
		Design						- 2 2 3	
FORM B PAGE 3	nent	Type* (Use Table 1)							
F0F	Air Pollution Control Equipment	Manufacturer and Model Number							
.	Reference	Number							

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- 1. Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS	
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				Product Qusput* nity Quantity Hour Per Year	27.034	2,750							
				Product Quantity Per Hour	3.1	6.3							
				Number of Emission Points To Air	DPEN PARCESS	2							
	8	Date		Feed Input ity Quantity our Per Year	27034	2,750							
				Peed Quantity Per Hour	3.1	6,3							
Address		Information for Calendar Year	19.27	Rated Process Capacity Tons/Hour	11.2	0.4	•						
		Information		Name	DRUMMING	LAKING							
Company Name		Operating Schedule	Hours / Days / Year	Process or Unit Operation Name	Rosin Shep Drun	Rosin Sheo FLAN							
			24 H	Reference Number	/	2		ē					

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number Exit Gas Temperature oF Exit Gas Velocity Feet/Sec. Stack Data Inside Unit Dia. Feet Reference Number 4

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM D REFUSE DISPOSAL AND INCINERATION

(Agency Use Only)		ш	ar Method of Disposal				Type Waste	*1 Disposal Method Codes 5. Burned in Boiler or Furnance ng) 6. Other (Specify) lete rest of Form)
Information for Year	Date	Q	Amount Per Year (Tons)			Rotary □ Flue Fed □	lour Jay	1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)
Company Name	Address	၁	Maximum Amount Per Day (Pounds)			Specify the Following: single chamber multiple Chamber Modified (describe) Other (describe)	Pounds / Hour Pounds / Day Tons / Year	Hours / Days / Year
Compai	Ad	B Description of Waste Materials	Type (Describe)	Nowe		If Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modifi Other	2. Manufacturer's Name: Model Number Rated Capacity 3. Quantity Burned:	4. Operating Schedule

FORM D PAGE 2

(AC	3ENC	USE (ONLY)		_

5.	Auxiliary	Fuel:	Туре		
			Amount/Year (Specify Units)		
			Heat Content		
			Percent Sulfur		
			Percent Ash		
			Supplier's Name		
6.	Pollution	Control Equipment:	Manufacturer		
0.	FOTTUCTOR	control Equipments.	Model Number		
			% Efficiency		
			Туре		
	*		GPM Water Flow (If Wet Scrubber)		<i>></i>
7.	Stack Data:		Height		_ Feet
			Inside Exit Diameter		Feet
		,	Exit Gas Velocity		Feet/Sec.
			Exit Gas Volume		SCFM
		·	Exit Gas Temp.		°F.
8.	Estimated	Emissions From Refu	se Incineration:		
		Name:		Basis of Estimates:	
		Particulates _	Tons/Year		
		Sulfur Oxides	11		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

of steam injection han

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones
32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers)
46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air
48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage51 double stage52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

FORM D PAGE 2

(AGENC	Y USE ON	ILY)	
_'	AGENC	T USE ON	ILT/	

5.	Auxiliary Fuel:	Туре		·····
	6	Amount/Year (Specify Units)	10	
		Heat Content		g - 0.1
		Percent Sulfur		
		Percent Ash		
		Supplier's Name		
6.	Pollution Control Equipment:	Manufacturer		
0.	Pollucion control Equipment.	Model Number		
		% Efficiency		·
		Туре		
	8	GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	Height		_ Feet
		Inside Exit Diameter	····	Feet
		Exit Gas Velocity		Feet/Sec.
		Exit Gas Volume		SCFM
		Exit Gas Temp.		o _F .
8.	Estimated Emissions From Refu	se Incineration:		
	Name:		Basis of Estimates:	
	Particulates _	Tons/Year		
	Sulfur Oxides	II		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride

14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters

34 baghouse (shaking) 35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber — with baffles

42 wet cyclones — rotoclone 43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption — scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage 51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

#17

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	 	
Facility No.:	 	
ACCR:		

#7 Lineary W. Of

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

3	FORM A GEN	ERAL INFORMA	TION O		
1. Owner of Source			Da	te Submitted	
2. Mailing Address		County	(υ	Location TM or LAT-Long)
3. City	State	Zip	Code	Telephone	
4. Name of Person	Completing Form		Tit	le	
5. Person to Conta	ct on Air Pollut	ion Matters			
Tit	le		Tele	phone	
6. Major Activity		¥	20		
SIC number		Office	<u></u> ₩	arehouse	
Retail or Whol	esale Store 🗀	Hotel or Mo	otel 📙 R	esidential or	Apt
School or Chur	rch 🔲	Hospital o	r Lab 🗍 0	ther (Attach Explana	tion
7. Signature of O	wner or Authorize	ed Company O	fficial	Date	
Type or Print Name	of Signer		Tit	le .	1
					

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.

information may be obtained.)

- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage	2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp 3. Air Heating for S		of Air) anical)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical)	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired	
¥.						
001	2 (DWTHEAM)	9	9.7	6. 9060	McKee Boner No.	1
Most Usage % Space heat	Usage (use code 2*)	Type of Burner Unit (use code 1*)	Rated Capacity 10 ⁶ BTU/hr b		Manufacturer and Mobel Number	Reference Number
7	9	5	4		က	2
	_{[4}	10.	77	-61	Hours / Day Days / Week Weeks / Year INTERMITTENT	46
		Dake	Information for Calender Year	Information fo	Operating Schedule	0
		ū				
for Agency use Only			Address		Company Name	
Page 1		:QUIPMENT isposal)	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	FORM		

NLY)		Sultan Ash	U. BATUO			٠					
(FOR AGENCY USE ONLY)	Fuel Data	(See the Units)	TOYO MY MAD (SEF) D.						1 1	í.	
FORM B PAGE 2	Plysicon Amand	Per Marine (Special)	D KOS MEF					Supplier			
<u>G</u>		/	NAT. 5RA					,		1	Ī
	-	Velocity Temperature Feet/Sec. Degree F.						Fuel Type			
	1 20	Exit Dia. Veld Feet Feet						LIERS:			
		Number Height Feet						FUEL SUPPLIERS:	•		

(FOR AGENCY USE ONLY) FORM B PAGE 3

	Basis	Estimate			•	•				
		aar)	(specify)							
	.;	Emissions (Tons/Year)	So ₂							
13			Particulate						3	
		ncy	Actual							
		Efficiency	Design							
	ment	Type*	(Use Table 1)						3	
12	Air Pollution Control Equipment	Manufacturer and Model Number	Nove							
	Rafaranca	Number								

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

C MAN	MANUFACTURING PROCESS OPERATIONS

PAGE 1

					(5)			(
				Output *	intity Quantity Hour Per Year	2,002						
				Product	Quantity Per Hour	6.2						
				Number of	Emission Points To Air	2						
		Date		Input	tity Quantity our Per Year	2,002						
				Feed	Quantity Per Hour	0.2						
Address		Information for Calendar Year	72	Rated Process	Capacity Tons/Hour	0.0						
		Information fo	19_		ıme	ROSIN ShED						
Company Name		Operating Schedule	Hours / Days 365 Days / Year		Process or Unit Operation Name	LiminG lair or h						
	9		24 HO INTE	Reference	Number	\						

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Actual Collection Efficiency Design Air Pollution Control Equipment Type* (use Table 1) Manufacturer and Model Number NONO Exit Gas Temperature oF Exit Gas Velocity Feet/Sec. Stack Data Inside Unit Dia. Feet Height Feet Reference Number

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

	F	ORM C PAGE 3		(FOR AGENC	Y USE ONLY)
11		12			
Reference Number	Particulates	Process Emissions* Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
/	None Deveres	N. D.		MERSURED	
		4			
				5	
v					
					=

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	ще	Information for Year	for Year	(Agency Use Only)
			7.8	
Address		Date	•	
3				
B Description of Waste Materials	O		Q	Ш
Type (Describe)	Maximum Amount Per Day (Pounds)	int s)	Amount Per Year (Tons)	1* Method of Disposal
Nove				
	-		134	
If Waste Disposal is by Incineration, Specify the Following:	y the Following:			
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)	*	Rotary Flue Fed	•
2. Manufacturer's Name:			,	
Rated Capacity	Pounds / Hour	/ Hour	Type Waste	
3. Quantity Burned:	Pounds / Day	/ Day		
4 Onerating Schedule	Tons / Year	Year		
	Days / Year	Year	110	*1 Disposal Method Codes
		-		5. Burned in Boiler or Furnance
		2.	2. Landfill (No Burning)	6. Other (Specify)
			3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	of Form)

FORM D PAGE 2

(AGENCY USE ONLY)	

5.	Auxiliary Fuel:	Туре	
		Amount/Year (Specify Units)	
		Heat Content	
		Percent Sulfur	
		Percent Ash	
		Supplier's Name	
6.	Pollution Control Equip	ment: Manufacturer	
		Model Number	
	â	% Efficiency	
		Туре	
		GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:	Height	Feet
		Inside Exit Diameter	_ Feet
		Exit Gas Velocity	_ Feet/Sec.
		Exit Gas Volume	SCFM
	*	Exit Gas Temp.	o _F .
8.	Estimated Emissions Fro	m Refuse Incineration:	
	Name:	Basis of Estimates:	
	Particulates	Tons/Year	
	Sulfur Oxides	II	
	The state of the s		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative 11 activated carbon — regenerative 12 silica gel — nonregenerative

13 silica gel - regenerative

14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber — with baffles

42 wet cyclones — rotoclone 43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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

operation of the plant or process Poly-Pale 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.	6th	day of .	February	, 19 74	
		AID A	ND WATER BOLL	UTION CONTROL	W1 11 K 11 K
			ND WATER POLI	LUTION CONTROL	L COMMISSION
			© E	xecutive Director	0
Expires	6th	day of	February	10 77	

Facility No. <u>0800-00001</u>-006 ADDITIONAL CONDITION IS ATTACHED

668

MPC FORM

- E

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-006

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION #

This Space For Use By Approving Agency

Date Received:		
Facility No.:	· · · · · · · · · · · · · · · · · · ·	
AOCR:		

or 6 Poly Pale

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	FORM A GENE	ERAL :	INFORMATION		
1. Owner of Source				1	Date Submitted
2. Mailing Address			County	(Location UTM or LAT-Long)
3. City	State		Zip Code	:	Telephone
4. Name of Person C	ompleting Form	ì		Ti	tle
5. Person to Contac	t on Air Polluti	ion M	atters		
		ļ		Tol	onhono
	e			ren	ephone
6. Major Activity					
SIC number		0ffi	ce		Warehouse
Retail or Whole	sale Store 🗀	Hote	l or Motel		Residential or Apts
School or Churc	h []	Hosp	ital or La	· 🗆	Other (Attach Explanation)
7. Signature of Own	er or Authorize	d Com	pany Offic	ial	Date
Type or Print Name o	f Signer	*		Ti	tle

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters. Stack Height in feet from ground. Stack Inside Exit Diameter in feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.) Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM B	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT Jisposal)			Page 1
	Company Name		Address			for Agency use Only	hly
HERCULES	THE TWO	HATT	47T1ES811.06	Ten.			
	Operating Schedule	Information for	Information for Calender Year	Date			
10	Hours / Day Days / Week Weeks / Year	19 77	7	9-30-12	12		ů.
2	ε		4	2	9		7
Reference Number	Manufacturer and Mobel Number	mber	Rated Capacity 10 ⁶ BTU/hr 1	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	sage % Space heat
	Whee Dover No.	70038			2 (bornear)	001	
	1* BURNER CODES				2* USAGE CODES	DES	
	(<u>4</u>	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	of Air) nical)		1. Boiler, Steam 2. Boiler, Chaelm 3. Air Heating fc 4. Air Heating fc 5. Others (specif	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

Percent Ash (FOR AGENCY USE ONLY) Fuel Data Supplier FORM B PAGE 2 Exit Gas Temperature Degree F. Fuel Type Exit Gas Velocity Feet/Sec. Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

	Basis	or stimate		ALC.		`		(7		
8			Other pecify)	7							
(FOR AGENCY USE ONLY)	•	ns/Ye	So2								
(FOR AC	13	Em	Particulate	0							
		ency	Actual								
		Efficiency	Design								
FORM B PAGE 3	ment	Type*	(Use Table 1)								
P. F. P. P. P. P. P. P. P. P. P. P. P. P. P.	Air Pollution Control Equipment	Management of the state of the	Matiniactures Minuses	Hone							
=		Number		,							

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment. Manufacturer and Model Number. Nameplate Data. Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known. Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

MANUFACTURING PROCESS OPERATIONS	
FORM C	

PAGE 1

				Product Output* antity Ouantity r Hour Per Year	102, 428
				Product Quantity Per Hour	Per Hour
				Number of Emission Points To Air	To Air
	2	Date	9-20-72	Feed Input tity Quantity our Per Year	102 428
		1	72	Feed Quantity Per Hour	// /
Address		Information for Calendar Year	19.77	Rated Process Capacity Tons/Hour	Tons/Hour
		Information	19	2	
Company Name		Operating Schedule	Hours / Days / Year	Process or Unit Operation Name	Town Town
		_	34 Hor	Reference Number	

*Specify Units of Measure Used

FORM C PAGE 2

(FOR AGENCY USE ONLY)

1	1	1		. 1		ì	1	ı	1		ı	l-
	Efficiency	Actual										
11	Collection Efficiency	Design										
Air Pollution Control Equipment	Tvne*	(use Table 1)	46	40								
Air Pollut	Manufacturer and Model Number		Common Buring VENT	HEAR TREATMENT YENT								
	Exit Gas Temperature	Нo	80°	L								
Stack Data	Exit Gas Velocity	Feet/Sec.	1	ı								
- 1	Inside Unit Dia	Feet	0.75	0.17								
	Height	Feet	35	9	-							
Doforonco	Number		10	10								

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C	PAGE 3	(FOR AGENCY USE ONLY)
 12		

11	1000	12			
		Process Emissions			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
IA	None Derecco	MAKNOWN			
18	"	//			
40 40 TO THE RESERVE		., .			
	10000			50 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10 TO 10	
					L

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

(Agency Use Only)		ш	1* Method of Disposal						Type Waste				*1 Disposal Method Codes	5. Burned in Boiler or Furnance	b. Other (Specity)	of Form,
Information for Year	Date	Q	Amount Per Year (Tons)				Rotary Flue Fed		advT					1. Open Burning	2. Languill (No Burning)	3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)
4		v	Upsimiling American Fer Dev decimals			ne Following:	single chamber ☐ multiple Chamber ☐ Modified (describe) ☐ Other (describe) ☐		Pounds / Hour	Pounds / Day	Tons / Year	Hours / Day				
Company Name	Address	B Description of Waste Materials	Type (Describe)	Nove		Waste Disposal is by Incineration, Specify the Following:	1. Type of Incinerator:	2. Manufacturer's Name: Model Number	Rated Capacity	3. Quantity Burned:		4. Operating schedule				

FORM D PAGE 2



_			_	
5.	Auxiliary	Fuel:	Type	·
			Amount/Year (Specify Units)	111
			Heat Content	
			Percent Sulfur	
			Percent Ash	
			Supplier's Name	
6.	Pollution	Control Equipmen	t: Manufacturer	
			Model Number	
			% Efficiency	
			Туре	······
			GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:		Height	_ Feet
			Inside Exit Diameter	Feet
			Exit Gas Velocity	Feet/Sec.
			Exit Gas Volume	SCFM
			Exit Gas Temp.	°F.
8.	Estimated	Emissions From Re	efuse Incineration:	
		Name:	Basis of Estimates:	
		Particulates	Tons/Year	···
		Sulfur Oxides	ii — — — — — — — — — — — — — — — — — —	

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina

15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter --Liquid Mist Control Equipment

30 Group -- DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber 33 simple filters 34 baghouse (shaking)

35 baghouse (reverse jet) 36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption — scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group -- Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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

operation of the plant or process Delnav 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_	6th	day of _	February	, 19 _74	¥
		AIRAI	ND WATER POLL	UTION CONTROL CO	1/1/1
		• • • • • •	Ex	ecutive Director	0
Expires	6th	day of _	February	, 19	
Facility No.	0800-00	0001-005			

DDITIONAL CONDITION IS ATTACHED

667



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-005

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

20.5

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	 ······································	
Facility No.:		
AOCB:		

2.5 *

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

FORM A GENERAL INFORMATION												
1. Owner of Source		Date Submitted										
2. Mailing Address	County	Location (UTM or LAT-Long)										
3. City	Zip Code	Telephone										
	1											
4. Name of Person Completing Form	T-	Title										
5. Person to Contact on Air Pollution Matters												
Title	Te	Telephone										
6. Major Activity SIC number												
Manufacturing or Processing	Office	Warehouse										
Retail or Wholesale Store	Hotel or Motel	Residential or Apt										
School or Church	Hospital or Lab	Other (Attach Explanation)										
7. Signature of Owner or Authorize	d Company Official	Date										
Type or Print Name of Signer	T	Title										

.

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.

information may be obtained.)

- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM	ORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT Disposal)			Page 1
	Company Name		Address			for Agency use Only	Only
			3.				
HERCULES	LES INC	HATT	ATTIESBURGE				(0)
J	Operating Schedule	Information 1	Information for Calender Year	Date	•		
416	Hours / Day Days / Week Weeks / Year	19.77	77	9-30-72	12		
2	3		4	5	9		7
Reference Number	Manufacturer and Mobel Number	lumber	Rated Capacity 10 ⁶ BTU/hr •	Type of Burner Unit	Usage (use code 2*)	Most Usage	Sage & Chare heat
					- Mourried		
	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	e of Air)		2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp 3. Air Heating for S 4. Air Heating for S 5. Others (specify)	USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

	₁ 1	1		9	1	î		. 1	5	I					
2		Percent Ash													
ONLY)		Percent	0.00016												
(FOR AGENCY USE ONLY)	Fuel Data		1025 (507)						В						
	Fue		JOHO MEE								ļ		1		Ī
FORM B PAGE 2			0.805 ME								Supplier				
FORM B			NM. GRS												
		Exit Gas Temperature Degree F.									ed.				
	Stack Parameters	Exit Gas Velocity Feet/Sec.									Fuel Type				
	Stack P	Inside Exit Dia. Feet	1.0								LIERS:				
		Stack Height Feet	20								FUEL SUPPLIERS:				
		Reference Number													

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Year) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number one Reference Number 7

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- 1. Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.
 Manufacturer and Model Number. Nameplate Data.
 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.
 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

RM C MANUF

			Product Output* Inity Quantity Hour Per Year	827,428
			Produc Quantity Per Hour	
			Number of Emission Points To Air	
	Date	9-20-72	nput Quantity Per Year	84 zal
	۵	9	Feed Input Ouantity Ouantity Per Year	
Address	Information for Calendar Year	77	Rated Process Capacity Tons/Hour	T. T. T. T. T. T. T. T. T. T. T. T. T. T
	Information f	19 77	Автю	
Company Name	Operating Schedule	/ Days 365 Days / Year	Process or Unit Operation Name	Eux- Fare Frank
	Ope	24 Hours / Days	Reference Number	

FORM C PAGE 2

(FOR AGENCY USE ONLY)

	Collection Efficiency	Actual		٠					- 100 m
quipment		1) Design							_
Air Pollution Control Equipment	Tvna*	(use Table 1)	1	46					
Air	Manufacturer and Model Number		Common Buraine Vers	HENT TREATMENT VENT					
	Exit Gas Temperature	ОF	80°	L					
Stack Data	Exit Gas Velocity	Feet/Sec.		ı					
	Inside Unit Dia.	-	0.25	0.17					
	Height	Feet	35	9		i.			
	Reterence Number		10	10					

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)

11		2			
		Process Emissions*			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
1/A	None Derected	MAKNOWN			
18	"	//			
	-				
			ii.		
		,			
				L	

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

(Agency Use Only)	*		ш	1* Method of Disposal							The state of the s			*1 Disposal Method Codes	5. Burned in Boiler or Furnance		'orm')
Information for Year		Date	Q	Amount Per Year (Tons)					Rotary Flue Fed		Type Waste			- 1 Disp	1. Open Burning	2. Landfill (No Burning)	3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)
•			υ	Permunia America Per Pay (Pound)			8	the Following:	single chamber ☐ multiple Chamber ☐ Modified (describe) ☐ Other (describe) ☐		Pounds / Hour	Pounds / Day	I ons / Year Hours / Day	Days / Year			
Company Name		Address	B Description of Waste Materials	Type (Describe)	Nowe			If Waste Disposal is by Incineration, Specify the Following:	1. Type of Incinerator:	2. Manufacturer's Name:	Rated Capacity	3. Quantity Burned:	4. Operating Schedule				

FORM D PAGE 2

(AGENCY US	E ONLY)	

5.	Auxiliary	Fuel:		Туре		
				Amount/Year (Specify Units)	1000	
				Heat Content		
				Percent Sulfur		
				Percent Ash		
				Supplier's Name		
6.	Pollution	Control	Equipment:	Manufacturer		
				Model Number		
				% Efficiency		
				Туре		
				GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:			Height		_ Feet
				Inside Exit Diameter		Feet
				Exit Gas Velocity		Feet/Sec.
				Exit Gas Volume	7	SCFM
				Exit Gas Temp.		°F.
8.	Estimated	Emission	s From Refu	se Incineration:		
		Name:			Basis of Estimates:	
	-	Particul	ates _	Tons/Year		
		Sulfur 0	xides _	····		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare 05 venturi flare

06 direct flame combustion (afterburner)

10 Group — ADSORBERS

10 activated carbon - nonregenerative 11 activated carbon - regenerative 12 silica gel - nonregenerative 13 silica gel - regenerative 14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter -**Liquid Mist Control Equipment**

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones 32 settling chamber 33 simple filters 34 baghouse (shaking) 35 baghouse (reverse jet) 36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones - rotoclone 43 wet dynamic precipitator 44 venturi scrubber 45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

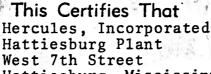
72 Mist eliminators

80 Group - Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment



Hattiesburg, Mississippi has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process

Delnav 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	6th	day of February , 19 74.
		AIR AND WATER POLLUTION CONTROL COMMISSION
		Executive Director
Expires	6th	day of February , 19 77.
Facility No	0800-00001	-005

ADDITIONAL CONDITION IS ATTACHED

667



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-005

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



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

27

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:		
Facility No.:	9	
AOCR:		

= 5 *

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	FORM A GEN	IERAL INFORMATIO	ON O		
1. Owner of Source			Da	ate Submit	ted
2. Hailing Address		County	(U	Location TM or LAT-I	_ong)
3. City	State	Zip Cod	e	Teleph	none
	3				
4. Name of Person (Completing Form		Titl	le	
-	7 2 4				
5. Person to Contac	ct on Air Pollut	ion Matters			
	1				
Tix			Telep	ohone	
Ü			a		<i>W</i>
6. Major Activity					
SIC number	Processing [Office	<u></u> ₩a	arehouse	
Retail or Whole	esale Store 🗀	Hotel or Motel	∏ Re	esidential	or Apts
School or Churc	ch 📋	Hospital or La		ther (Attach Exp	anation)
7. Signature of Own	ner or Authorize	d Company Offic	ial	Date	
Type or Print Name o	of Signer		Titl	le	

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.

 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.

 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.

 Average Percent Sulfur Content.

 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

* 1	ļ						1							1	1	1		
Page 1	for Agency use Only			81	7	Most Usage % Space heat		8)ES	1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)
			=		9	Usage (use code 2*)		:									2* USAGE CODES	1. Boiler, Steam 2. Boiler, Other 3. Air Heating fo 4. Air Heating fo 5. Others (specif
มบเPMENT sosal)		- Table 1	Date		5	Type of Burner Unit (use code 1*)						٠						
FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	Address		. Calender Year	-1	4	Rated Capacity 10 ⁶ BTU/hr b												of Air) mical)
FORM B			Information for Calender Year	19		nber									-			6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)
	Company Name		Operating Schedule	Hours / Day Days / Week Weeks / Year	8	Manufacturer and Mobel Number	None										1* BURNER CODES	1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify) 10
	-		Ope		2	Reference												

JSE ONLY)		Percent Percent Sulfur Ash				V.				5				
(FOR AGENCY USE ONLY)	Fuel Data	Amount Heat Content Per Year BTU/Gal, etc., (Specify Units)												
FORM B PAGE 2		Maximum Amount Per Hour (Specify Units) (S			8				*		Supplier			
FORM		Fuel Type		8										
		Exit Gas Temperature Degree F.									урв			
	Stack Parameters	Exit Gas Velocity Feet/Sec.									Fuel Type			
	Stack	Inside Exit Dia. Feet									JERS:			
		Stack Height Feet									FUEL SUPPLIERS:			
		Reference Number	×	B									9	

FORM B PAGE 3

(FOR AGENCY USE ONLY)

	Basis	Estimate			- · ·				
		Other							
		So ₂ (1013/16d1)							
<u> </u>	Ü	Particulate							
		gn Actual							
		Design				167			
	ent	Type* (Use Table 1)							
12	Air Pollution Control Equipment	Manufacturer and Model Number							
11	Reference	Number							

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour <u>and</u> wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

			Product Output* Iantity Quantity In Hour Per Year	3,378							
			Product Quantity Per Hour	0.38							
		,	Number of Emission Points To Air	w							4
	Date		Guantity Chantity Per Hour Per Year	3,378							
	-		Feed Quantity Per Hour	0.38							
Address	Information for Calendar Year	19 72	Rated Process Capacity Tons/Hour	0.38							
	Information f	10	Vame								
Company Name	Operating Schedule	Hours / Days 365 Days / Year	Process or Unit Operation Name	DELWAY FLANT							
	Ō	24 HOURS	Reference Number	/			V				

FORM C PAGE 2

(FOR AGENCY USE ONLY)

			C								
	Efficiency	Actual							48		
t	Collection Efficiency	Design									
Air Pollution Control Equipment	Tvoe*	(use Table 1)	0.5	80	40					- 10	
Air Pollut	Manufacturer and Model Number		JOHN ZINK FLAKE TOWER	LIMESTONE TANKS	Sump Vent						
	Exit Gas	o F	ı	1	1						
Stack Data	Exit Gas	Feet/Sec.	1	1	1						
	Inside	Feet	١	6 0	0.33						
	Loids	Feet	100	10	15						
	Reterence Number		14	18	16						

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

			
	FORM C	PAGE 3	(FOR AGENCY USE ONLY)
11	12		

11		1 2			
Reference Number	Particulates	Process Emissions* Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Corments Only)
14	None DETERDO	141 Tows /VR		CALE	
18	None DETECTED N. D.	N. D.		Measured AREA	
10	N. D.	N.D.			
					7
			-		
			Lace the base of the control of	Charles and the second	

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	me	Information for Year	Year	(Agency Use Only)	
Address		Date			
			Ħ		¥
B Description of Waste Materials	ပ		Q	ш	
Type (Describe)	Maximum Amount Per Day (Pounds)		Amount Per Year (Tons)	Method of Disposal	*-
None			3		
			-		
	,				
		,			
f Waste Disposal is by Incineration, Specify the Following:	fy the Following:				
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)	Ro	Rotary		
		1	n.		
2. Manufacturer's Name:			*		
Model Number Rated Capacity 3. Quantity Burned:	Pounds / Hounds / Day Tons / Year	Pounds / Hour Pounds / Day Tons / Year	Δ.	Type Waste	
4. Operating Schedule	Hours / Day Days / Year	/ Day Year	*	*1 Disposal Method Codes	
			Copen Burning Landfill (No Burning) Incinerator (Complete rest of Form)	5. Burned in Boiler or Furnance 6. Other (Specify) st of Form)	r Furnance
		. t	nicai burner vigeres,		

FORM D PAGE 2

(AGENCY USE ONLY)

5.	Auxiliary Fuel:	Туре		
		Amount/Year (Specify Units)	
		Heat Content		
		Percent Sulfur		
		Percent Ash		
		Supplier's Name		
6.	Pollution Control Equipment:	Manufacturer		
		Model Number		
		% Efficiency		
		Туре		
		GPM Water Flow (If Wet Scrubber)		
		(1) Het sei ubbei j		
7.	Stack Data:	Height	N	Feet
	8	Inside Exit Diameter		Feet
		Exit Gas Velocity		Feet/Sec.
		Exit Gas Volume	10	SCFM
		Exit Gas Temp.	<u>11</u>	°F.
8.	Estimated Emissions From Refu	use Incineration:		
	Name:		Basis of Estimates:	

_____Tons/Year

Particulates

Sulfur Oxides

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group — WET COLLECTORS

40 spray chamber - no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other

Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That
Hercules, Incorporated
Hattiesburg Plant
West 7th Street
Hattiesburg Mississipp

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Two (2) Riley-Stoker, Union Iron

Works, Type MH Steam Boilers

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	6th day of February	19.74
	The state of the s	Tes
	AIR AND WATER POLL	UTION CONTROL COM

Executive Director

Expires 6th day of February , 19 77

Facility No. <u>0800-00001</u>-004

666

MPC FORM



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:		
Facility No.:	,	
AOCB:		

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

FORM A GENERAL INFORMATION										
1. Owner of Source				1	Date Submitted					
		·		= 	= -					
2. Mailing Address		1/4	County	(Location UTM or LAT-Long)					
					' 					
3. City	State		Zip Cod	e	Telephone					
4. Name of Person (Completing Form		Title							
5. Person to Contac	ct on Air Pollut	tion M	latters							
			ħ	 						
Tit	le 		Telephone							
6. Major Activity										
SIC number		0ffi	ice		Warehouse					
Retail or Whole	esale Store 📘	Hote	el or Motel		Residential or Apt					
School or Churc	ch 📋	Hosţ	oital or La	ь	Other(Attach Explanation)					
7. Signature of Owner or Authorized Company Official Date										
Type or Print Name of Signer Title										

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel types.)

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

Company Name Address Proceeding Schedule Information for Calender Year Date The Days Vessel Year The BURNER CODES To Company Name The BURNER CODES To Company Name The BURNER CODES To Company Name The BURNER CODES To Company Name The BURNER CODES To Company Name The BURNER CODES To Company Name The BURNER CODES To Company Name The BURNER CODES To Company Name The BURNER CODES To Company Name The The The The The The The The The The		FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	VING EQUIPMENT fuse Disposal)			Page 1
Describing Schedule Information for Calender Year Date House Vear Weeks / Year Week	Company Name	Addre	SS		for Agency use O	hly
Descriting Schedule Information for Calender Year Deter Hours Day Weeks I Year Boys / Weeks Boys						
### Hours / Day Wheates / Variet 19_2ff Wheates / Variet 19_2ff Wheates / Variet Wheates /	Operating Schedule	Information for Calender Ye		Get		
Range Capacity Tryop of Burner Unit Usage Most Ulasse Most Ula	Hours / Day Days / Week Weeks / Year	12 61				
		4	5	9	7	7
	6	Rated Capaci 10 ⁶ BTU/h	-	Usage (use code 2*)	Most U % Process	72
1* BURNER CODES 1. Cyclone furnee 2. Pulverized coal 3. Sprader Stoker 3. Sprader Stoker 4. Hand first Stoker 9. Atomizing Oil (Stove of Air) 6. Other stoker (specify) 10. Rotary Cup Oil	RILEY-STOKER. U.	mH		/	100	
1* BURNER CODES 1. Cyclone furnace 6. Multiple port gas 2. Pulverized coal 7. Forced derift gas stratm OR AIR 3. Spreader Stoker 9. Atomizing Oil (Stowe of Air) 4. Atomizing Oil (Werhankel) 5. Other stoker (spacify) 10. Rotary Cup Oil (Merhankel)			,	//	*	
6. Multiple port gas 7. Forced draft gas strain OR AN SA 8. Atomizing Oil (Stove of Air) A 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas straim or ANN 8. Atomizing Oil (Stove of Air) 4 9. Atomizing Oil (Mechanical) 6.) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas stream or Air Air Air B. Atomizing Oil (Stove of Air) 4. Air Air B. Atomizing Oil (Mechanical) 6.) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas strain or Air Air Air Air Air Air Air Air Air Ai						
6. Multiple port gas 7. Forced draft gas strain or Air Air Air Air Atomizing Oil (Stove of Air) Air Air Air Air Air Air Air Air Air Air						
6. Multiple port gas 7. Forced draft gas strain or Air A 8. Atomizing Oil (Stove of Air) 4 9. Atomizing Oil (Mechanical) fty) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas strain or Air 28 8. Atomizing Oil (Stove of Air) 4 9. Atomizing Oil (Mechanical) fty) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas strain or Ank S 8. Atomizing Oil (Stove of Air) 4 9. Atomizing Oil (Mechanical) fty) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas STATIM OR ATK 8. Atomizing Oil (Stove of Air) 4 9. Atomizing Oil (Mechanical) fty) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas strain OK 41K S 8. Atomizing Oil (Stove of Air) 4 9. Atomizing Oil (Mechanical) fty) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas strain OK 4 1 K 8. Atomizing Oil (Stove of Air) 4 9. Atomizing Oil (Mechanical) fty) 10. Rotary Cup Oil						
6. Multiple port gas 7. Forced draft gas \$750m OR AN AN AN AN AND STORY OIL (Stove of Air) AND 9. Atomizing Oil (Mechanical) 6. Multiple port gas						
6. Multiple port gas 7. Forced draft gas stram OR 4 1K > 8. Atomizing Oil (Stove of Air) ← 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil	1* BURNER CODES			2* USAGE CO	DES	
	Cyclone furnace Pulverized coal Spreader Stoker Hand fired Other stoker (specify)	6. Multiple port gas 7. Forced draft gas STEFIM OR 41K 8. Atomizing Oil (Stove of Air) € 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil		1. Boiler, Ste 2. Boiler, Oth 3. Air Heatin 4. Air Heatin 5. Others (spe	am er (specify) g for Space Heating g for Process Usage ccify)	

FORM B PAGE 2

(FOR AGENCY USE ONLY)

			(
	Percent Ash	MIL	NIK	11.4-1/4	NIL	//	٠			
	Percent Sulfur	0.26	0.26	2.23	0.00016	"				
el Data	Heat Content BTU/Gal, etc. (Specify Units)	1,536 m 165 14,800 (16)	4455 MBS 14,800 (16)	693 M Bas 19,000 (16) 2.23	4.69 Met 1025/Set 0.00016	"				
Fuel Data	Amount Per Year (Specify Units)	7536 M 165	4455 MBS	693 M Cas	14.698 MEF	"				
	Maximum Amount Per Hour (Specify Units)	1386 lbs	118316	210 GAVS	28 MEE	1				
	Fuel Type	PESIN PITEH	Herri Ous	Fuer Oir	NAT. GAS	(SAME AS)				
	Exit Gas Temperature Degree F.	463		و *		1				
Stack Parameters	Exit Gas Velocity Feet/Sec.	29.6				1				
Stack F	Inside Exit Dia. Feet	*				1				
	Stack Height Feet	100				-				
	Reference Number	_				2				

FUEL SUPPLIERS:

FORM B PAGE 3

(FOR AGENCY USE ONLY)

, in a	oass of Estimate		CALC	CAUC		•	•				8
	ar)	Other (specify)									
	Emissions (Tons/Year)	So2	154	154	, ,						
	Ē	Particulate	NIL	Nin							
	DEV	Actual									
	Efficienty	Design		,							
	ment	Type* (Use Table 1)									
71	Air Pollution Control Equipment	Manufacturer and Model Number	None	"							
11	Reference	Number	_	7							

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour <u>and</u> wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

FORM C MANUFACTURING PROCESS OPERATIONS

1	ı			1				1 1		1	1			ı
				Output*	Quantity Per Year		•		•					
				Product Output*	Quantity Per Hour									
				Number of	Emission Points To Air									
		Date		Feed Input	Quantity Per Year									
				Feed	Quantity Per Hour			Ng.			 			
Address		Information for Calendar Year	or Calendar Year		Capacity Tons/Hour									
		Information f	19		пе	The second secon						The state of the s		
Company Name		Operating Schedule	Hours / Days / Year		Process or Unit Operation Name	NONE								
			Opei		Number									

FORM C PAGE 2

(FOR AGENCY USE ONLY)

ł		. (1	1							
	Efficiency	Actual										
	Collection Efficiency	Design									0.	
Air Pollution Control Equipment	Tvne*	(use Table 1)				8			73.			
Air Pollut	BA factorises and Randal Number							*		-		
		INGIN I SCLOT ST					3	180				
	Exit Gas	l emperature oF										
Stack Data	Exit Gas	Velocity Feet/Sec.										
	Inside	Unit Dia. Feet										
		Height Feet										
	Reference											

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

F	OI	R۱	N	С	P	Α	G	Ε	3
---	----	----	---	---	---	---	---	---	---

(FOR AGENCY USE ONLY)

Reference Number

Particulates

Sulfur Oxides

Sulfur Oxides

Particulates

Reference Sulfur Oxides

Reference Sulfur Oxides

Sulfur Oxides

Reference Sulfur Oxides

Sulfur Oxides

Sulfur Oxides

Reference Specify by chemical composition

(Agency Comments Only)

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

4

(Agency Use Only)		ш	ar Year 1*						T. van Made	the waste		*1 Disposal Method Codes	
Information for Year	Date	Q	Amount Per Year (Tons)			Rotary Flue Fed			Aid	Ap(- N		1. Open Burning 2. Landfill (No Burning)
ne		υ	Manumin Amount For Boy (Founds)			/ the Following: single chamber □ multiple Chamber □ Modified (describe) □	Other (describe)		Pounds / Hour	Pounds / Day	Tons / Year Hours / Day	Days / Year	
Company Name	Address	B Description of Waste Materials	Type (Bescribe)	None		f Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modif		2. Manufacturer's Name:	Model Number Rated Capacity	3. Quantity Burned:	4. Operating Schedule		

FORM D PAGE 2

	5 1	Tuno		
5.	Auxiliary Fuel:	Туре		
		Amount/Year (Specify Units)	
		Heat Content		
		Percent Sulfur		
		Percent Ash		
		Supplier's Name		
6.	Pollution Control Equipment:	Manufacturer		
		Model Number		
		% Efficiency		
		Туре		
		GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:	Height		_ Feet
		Inside Exit Diameter		Feet
		Exit Gas Velocity		Feet/Sec.
		Exit Gas Volume	1	SCFM
		Exit Gas Temp.		°F.
8.	Estimated Emissions From Ref	use Incineration:		
	Name:		Basis of Estimates:	
	Particulates	Tons/Year		
	Sulfur Oxides	11		

TABLE 1

CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox 04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative 11 activated carbon - regenerative 12 silica gel - nonregenerative 13 silica gel - regenerative 14 lithium chloride 15 activated alumina 16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter -**Liquid Mist Control Equipment**

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber 33 simple filters 34 baghouse (shaking) 35 baghouse (reverse jet) 36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber - no baffles 41 spray chamber - with baffles 42 wet cyclones - rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption - scrubbers) 46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group — ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group - Other Specify

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

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

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

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air

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 th	is 6th	No. C. See	February ID WATER POLLU	,19_ <u>74</u> TION CONTROL CO	MMISSION
			Exec	utive Director	
Expires	6th	day of	February	19 77	

Facility No. 0800-00001-003

ADDITIONAL CONDITION IS ATTACED

663

ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-003

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

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

3

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION?

This Space For Use By Approving Agency

Date Received:	 	_	
Facility No.:	 		
AOCB:			

9 720 60 (C.W.)

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company head-quarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

1. Owner of Sour	ce		Da	te Submitted							
2. Mailing Addre	ss	County	דט)	Location M or LAT-Long)							
	-			T-1							
3. City	State	Zip Co	de	Telephone							
4. Name of Perso	n Completing Form		Title								
			(K)								
5. Person to Contact on Air Pollution Matters											
		ŧ									
T	itle		Telepl	none							
-											
6. Major Activit	у										
SIC number	or Processing	Office	<u></u> ₩aı	rehouse							
Retail or Wh	olesale Store 🔲	Hotel or Mote	el 📙 Re	sidential or Apt							
School or Ch	urch 📘	Hospital or L	.ab 🗍 Otl	her Attach Explanation							
7. Signature of	Owner or Authoriz	ed Company Offi	cial	Date							

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet, etc. Specify. Average amount Burned per Year. Gallons, Tons, Million cubic feet, etc. Specify. Heat Content of Fuel. BTU per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.

 (If percent sulfur and percent ash are not known, list fuel types.)

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

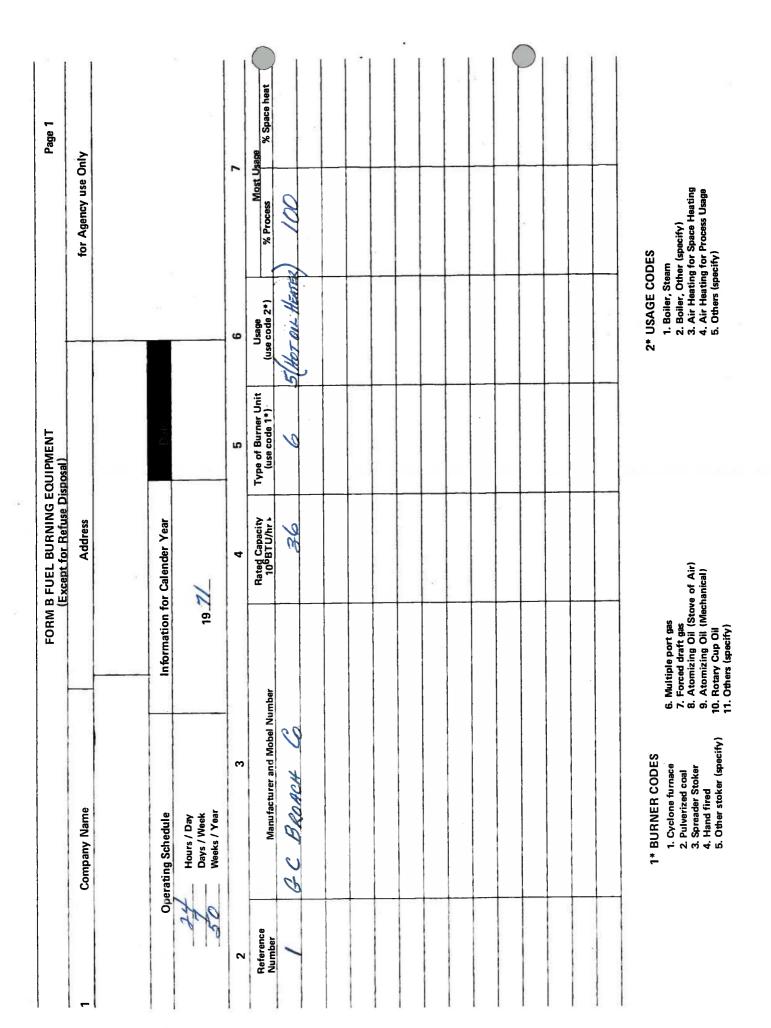
 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).



FORM B PAGE 2

(FOR AGENCY USE ONLY)

Percent Ash 1025 (SCF) 0.00016 Percent Sulfur Heat Content BTU/Gal, etc, (Specify Units) Fuel Data 158 400 MEF Amount Per Year (Specify Units) Maximum Amount Per Hour (Specify Units) 18 MEF Supplier Fuel Type Exit Gas Temperature Degree F. 463 Fuel Type Exit Gas Velocity Feet/Sec. JCT 4/ Z9, 6 Stack Parameters Inside Exit Dia. Feet FUEL SUPPLIERS: Stack Height Feet Reference Number

FORM B PAGE 3

(FOR AGENCY USE ONLY)

,					(1		s I S	r i	. (r	, ,
		Estimate	- 1	CALC								
		ar)	(spacify)									
	• !	Emissions (Tons/Year)	So2	0.023								
13		٥	Particulate	0								
		ncy	Actual									
		Efficiency	Design									
	ment	Type*	(Use Table 1)									
12	Air Pollution Control Equipment	Manufacture and Model Number	Mailuiacturer alla Model Nulliber	None								
11		Reference Number		/								

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- 1. Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device) Stack Height in feet above ground. Stack Inside Diameter in Feet. Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used) Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour <u>and</u> tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

					Quantity
PAGE 1				Product Output*	Quantity Qu
				Number of	Emission Points
ATIONS		Date		Feed Input	Quantity Par Voca
OCESS OPER			==	Feed	Quantity Der Hour
MANUFACTURING PROCESS OPERATIONS	Address	Information for Calendar Year	17 61	Rated Process	Capacity
FORM C MA		Information	91		ame
	Company Name	Operating Schedule	Hours / Days / Year		Process or Unit Operation Name
			Hon Hon	Dogosopo	Number

Reference Number	Process or Unit Operation Name	Rated Process Capacity Tons/Hour	Per Hour	Input Quantity Per Year	Number of Emission Points	Product Quantity	Product Output * Intity Quantity Duantity
/	TALL DIE PLANT	7.50	5.91	49.693	/	5.91	E6964
	,						

FORM C PAGE 2

(FOR AGENCY USE ONLY)

i	1	ı		ı	ľ	I	ı	f	C)	ř	1	ì
	Collection Efficiency	Actual											
at .		Design											
Air Pollution Control Equipment	Tvoe*	(use Table 1)	E0					7					
Air Polluti	Manufacturer and Model Number		BROACH HOT OIL HEMPER									·	
	Exit Gas Temperature	нo											
Stack Data	Exit Gas Velocity	Feet/Sec.					-						
	Inside Unit Dia.	Feet	X										
	Height	Feet	85										
Reference	Number		/										

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FORM C PAGE 3	(FOR AGENCY USE ONLY)	

11	12	2						
Reference		Process Emissions*	Others	Basis				
Number	Particulates	Sulfur Oxides	(Specify by chemical composition)	for Estimation	(Agency Corments Only)			
/	None Derected	N.D.		MEASURED				
2								
					120			
		-						
			Tal.					
			1	-				
				933-33				

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Belng Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator.

 Manufacturer of Control Device.

 Model Number of Control Device.

 Percent efficiency of Control if Known.

 Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms.

 GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data.

 Height in Feet above Ground.

 Inside Exit Diameter in Feet.

 Exit Gas Velocity in Feet per Second.

 Exit Gas Volume if Velocity not Known.

 Exit Gas Temperature in Degrees F if known.
- 8. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

⋖

(Agency Use Only)		ш	1* Method of Disposal				Waste	*1 Disposal Method Codes 5. Burned in Boiler or Furnance 6. Other (Specify) est of Form)
Information for Year	Date	Q	Amount Per Year (Tons)			Rotary Flue Fed	Type Waste	*1 Disposal N 1. Open Burning 2. Landfill (No Burning) 3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)
*		υ	Maximum Amount Per Day (Pounds)			collowing: single chamber □ multiple Chamber □ Modified (describe) □ Other (describe) □	Pounds / Hour Pounds / Day	Hours / Day Days / Year
Company Name	Address	B Description of Waste Materials	Type (Describe)	None		f Waste Disposal is by Incineration, Specify the Following: 1. Type of Incinerator: multip Modifi	2. Manufacturer's Name: Model Number Rated Capacity 3. Quantity Burned:	4. Operating Schedule

FORM D PAGE 2

(AGENCY USE ONLY)	

_			_	
5.	Auxiliary	Fuel:	Туре	
			Amount/Year (Specify Units)	
			Heat Content	
			Percent Sulfur	
			Percent Ash	
			Supplier's Name	
6.	Pollution	Control Equipment:	Manufacturer	
			Model Number	
			% Efficiency	
			Туре	171
	4		GPM Water Flow (If Wet Scrubber)	
7.	Stack Data:		Height	Feet
			Inside Exit Diameter	Feet
			Exit Gas Velocity	Feet/Sec.
			Exit Gas Volume	SCFM
			Exit Gas Temp.	o _F .
8.	Estimated	Emissions From Refu	use Incineration:	
		Name:	Basis of Estin	nates:
	-	Particulates	Tons/Year	
		Sulfur Oxides	II	

TABLE 1

CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion

02 furnace combustion

03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon - nonregenerative

11 activated carbon - regenerative

12 silica gel - nonregenerative

13 silica gel - regenerative

14 lithium chloride

15 activated alumina

16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower

21 bubble-cap tower

22 packed tower

Particulate Matter -

Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber

33 simple filters

34 baghouse (shaking)

35 baghouse (reverse jet)

36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles

41 spray chamber - with baffles

42 wet cyclones - rotoclone

43 wet dynamic precipitator

44 venturi scrubber

45 spray tower (not absorption - scrubbers)

46 packed tower (not absorption - scrubbers)

47 condensors (tube and shell); air

48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage

51 double stage

52 precipitron

60 Group

60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other

Specify

WA

State of Mississippi Air and Water Pollution Control Commission

PERMIT

To Operate Air Emissions Equipment

This Certifies That
Hercules, Incorporated
Hattiesburg Plant
West 7th Street
Hattiesburg Mississipper

has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Millroom & extractor house

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 promulgate	d thereunder.	and regulations of standards
Issued this 6th	day ofFebruary	, 19
	AIR AND WATER POLLUTI	ON CONTROL COMMISSION
	Executi	ylewwood yn.
Expires6th	day ofFebruary	19 - 77
Facility No0800-00		
ADDITIONAL CON	DITION IS ATTACHED	659



ADDITIONAL CONDITION

ISSUED TO

Hercules, Incorporated Hattiesburg Plant West 7th Street Hattiesburg, Mississippi

Facility No: 0800-00001-001

14. Good housekeeping should be maintained to prevent fugitive dust. Should fugitive dust become excessive, additional control measures may be required.



MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

#1

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	
Facility No.:	
AQCR:	

FORM A GENERAL INFORMATION

- 1. Owner of Source. Company and Division Name.
- 2. Mailing Address. Address for plant location--not address of company headquarters. County in which plant is located. Location by UTM coordinates or by latitude and longitude.
- 3. City or Town, State, Zip Code; and Telephone Number of Person Completing Form.
- 4. Name and Title of Person Completing Form.
- 5. Person to Contact on Air Pollution Matters.
 Name, title, and telephone number of person on plant site
 to contact about Air Pollution matters.
- 6. Major Activity. Give Standard Industrial Classification (4 digits) number. Check type of business.
- 7. Signature of Owner or Authorized Company Official.
 Name, title, and telephone number of official who accepts responsibility for the accuracy of information submitted on the forms.

	FORM A GENERAL	INFORMATION)
1. Owner of Source			Date Submitted
HATTIESBURG P	LANT OF HERCY	LES INC.	9-20-72
2. Mailing Address		County	Location (UTM or LAT-Long)
PO Box 19	37 FOR		- N 31°20' - N 89° 18'
3. City	State	Zip Code	Telephone
HATTLESBURG	MISSISSIPPI	39401	584-6411
4. Name of Person (Completing Form	Ti	itle
Charles Vo	PRDAN	Chemicar &	NGINEER
	ct on Air Pollution		
Charles	YORDAN		
Titl	e	Tel	ephone
Chemical	ENGINEER	584-6411	/
6. Major Activity			,
SIC number 2 2 6 4	·	<i>379 € 2822 (</i> ice	MiNOR) Warehouse
☐ Retail or Whole	esale Store 🗀 Hot	el or Motel 📙	Residential or Apts
School or Churc	th 📘 Hos	pital or Lab 🗍	Other (Attach Explanation)
7. Signature of Own	ner or Authorized Co	mpany Official	Date
Type or Print Name o	of Signer	Ti	itle
D B KIN	GERV	Pin	T Manyages

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Form B has 3 pages; each is a continuation of the equipment information from the page before. Please fill in as completely as possible, listing all fuel burning equipment of capacity greater than 350,000 BTU's per hour.

- 1. Fill in company name, address, operating schedule, and year for which data is given at top of page. Use data for most recent calendar year available.
- Reference Number. Use an identifying number for each boiler, furnace, kiln, etc. and use the same reference number on each of the three pages to identify information for the same unit.
- 3. Manufacturer and Model Number. Nameplate data for boiler, furnace, kiln, etc. Waste gas flares should also be included on this form and stationary internal combustion engines over 3000 horsepower.
- 4. Rated Capacity in Millions of BTU per hour.
- 5. Type of Burner Unit. Use Codes (1*) at bottom of form. If not listed put (11) and specify.
- 6. Usage. Type of fuel burning equipment. Use codes (2*) at bottom of form. If not listed put (5) and specify.
- 7. Heat Usage. Percent of heat used for process and percent for space heating.

Page 2, Form B

- 8. Reference Number. Continue reference numbers from Page 1, using same number to identify information for same unit.
- 9. Stack Parameters.
 Stack Height in feet from ground.
 Stack Inside Exit Diameter in feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used.)
 Exit Gas Temperature in degrees F.
- 10. Fuel Data.
 Fuel Type. Coal, Gas, #2 Oil, #6 Oil, etc.
 Maximum Capacity burned per hour. Gallons, pounds, cubic feet,
 etc. Specify. Average amount Burned per Year. Gallons, Tons,
 Million cubic feet, etc. Specify. Heat Content of Fuel. BTU
 per Gallon, pound, cubic foot, etc. Specify.
 Average Percent Sulfur Content.
 Average Percent Ash Content.
 (If percent sulfur and percent ash are not known, list fuel type

(If percent sulfur and percent ash are not known, list fuel type and supplier's name at bottom of page in spaces provided so that information may be obtained.)

Page 3, Form B.

- 11. Reference Number. Use same numbers as on Page 1 and 2 to identify information for same unit.
- 12. Air Pollution Control Equipment.

 Manufacturer and Model Number. Information from nameplate.

 Type. Use Table 1, Page 16. If a wet scrubber, specify gallons per minute of water flow and water pressure if known.

 Efficiency. Percent design control on pollutants and actual percent control if known.
- 13. Emission Rates.

 Specify tons per year of each of the listed pollutants emitted per year.

 Give Basis of Estimates of pollutants emitted (Material balance, Stack tests, Emission factors, etc.)

 (if unit is a kiln or similar unit in which combustion products and process losses vent through a common stack, emissions may be totaled and listed under process losses).

		FORM B	FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)	EQUIPMENT isposal)			Page 1
	Company Name		Address			for Agency use Only	hily
NF8000 FS	7410	No Box	BOX 1927 WA	TTIESBURG	11/35		
aO	ating	Information fo	Information for Calender Year	Date	R		
	Hours / Day Days / Week Weeks / Year	19 2/	77	9-20-72	2		e.
2	m		4	5	9		7
Reference	Manufacturer and Mobel Number	umber	Rated Capacity 10 ⁶ BTU/hr t	Type of Burner Unit (use code 1*)	Usage (use code 2*)	Most Usage % Process	% Space heat
	1* BURNER CODES 1. Cyclone furnace 2. Pulverized coal 3. Spreader Stoker 4. Hand fired 5. Other stoker (specify)	6. Multiple port gas 7. Forced draft gas 8. Atomizing Oil (Stove of Air) 9. Atomizing Oil (Mechanical) 10. Rotary Cup Oil 11. Others (specify)	e of Air) nanical)		2* USAGE CODES 1. Boiler, Steam 2. Boiler, Other (sp 3. Air Heating for § 4. Air Heating for § 5. Others (specify)	USAGE CODES 1. Boiler, Steam 2. Boiler, Other (specify) 3. Air Heating for Space Heating 4. Air Heating for Process Usage 5. Others (specify)	

A 32		Percent Sulfur																		
	Fuel Data	Amount Per Year (Specify Units)																		
		Maximum Amount Per Hour (Specify Units)												Supplier						
		t Gas erature Fuel Type ee F.				×										1				
	ack Parameters	Exit Gas Velocity Feet/Sec.							16					Fuel Type						
	Şŧ	Stack Height Feet												FUEL SUPPLIERS:	1	1	1	1	1	
			Stack Parameters Stack Parameters Stack Parameters Stack Parameters Stack Parameters Stack Parameters Stack Inside Exit Gas Exit Gas Percent Height Exit Dia. Height Exit Dia. Feet Feet Feet Specify Units) Stack Inside Exit Gas Percent Per Hour Specify Units) Stack Inside Exit Gas Percent Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Per Year Specify Units) Stack Inside Exit Gas Percent Per Year Pe	Stack Parameters Stack Inside Exit Gas Height Exit Dia. Velocity Temperature Feet Feet Feet Feet Stack Inside Reat/Sac. Degree F. (Specify Units) (Specify Units)	Stack Parameters Stack Inside Exit Gas Exit Gas Height Exit Dia. Velocity Temperature Feet Feet Feet Feet Sec. Degree F. (Specify Units) (Specify Units) (Specify Units) Sulfur	Stack Parameters Inside Exit Gas Exit	Stack Parameters Stack Inside Exit Gas Exit Gas Height Exit Dia. Feet Feet Feet Stack Degree F. (Specify Units) (Specify Units) Specify Units) Suffur Suffur Specify Units) Suffur Specify Units) Specify Units)	Stack Parameters Stack Parameters Stack Inside Exit Gas Exit Gas Height Exit Gas Faid Type Per Hour Feet Feet Feet Feet Peer Kour Feet Feet Stack Degree F. (Specify Units) (Specify Units) Sulfur Ash	Stack Parameters Stack Parameters Stack Parameters Stack Parameters Exit Gas	Stack Parameters	Stack Paremeters Stack Inside Exit Gas Exit Gas Heat Care Heat Care Heat Care Free Inside Exit Gas Exit Gas Free Inside Exit Gas Exit Gas Free Inside Exit Gas Free Inside Exit Gas Free Inside Exit Gas Free Inside Free Ins	Stack Permeters Stack Permeters Stack Permeters Stack Permeters Stack Permeters Stack Permeters Field Type Permeters Field Ty	Stack Lisids Exit Cas Exit Cas Fried Cas First Cas First Type Resistant Amount Feet Feet Feet Transmenter First Type (Specify Units) (Specify Units) (Specify Units) Sailtur Adams Amount Adams (Specify Units) (Specify Units) (Specify Units) (Specify Units) Sailtur Adams Cas Cas Cas Cas Cas Cas Cas Cas Cas Ca	Stack Indid Exit Gas Feet Gas	Stack India Exit Gas Exit Gas Peruntary Amount Feat Date Feat Type Maximum Amount Feat Content Percent Per	Stack Frameders Stack India Exit Gas Exit Gas Food Type Maximum Amount Field Type Gapenty Unital Specify Unital	Stack Ferromater 1-Stack Ferroma	State Parameters State Parameters	State Freinfall State Feet State Freinfall State Feet State Freinfall State Feet State Freinfall State Freinfa	Stack Further English Eight Care Four Temperature Four Transcrape Four Transcr

Basis of Estimate (FOR AGENCY USE ONLY) Emissions (Tons/Vear) So2 Particulate Actual Efficiency Design Type* (Use Table 1) FORM B PAGE 3 Air Pollution Control Equipment Manufacturer and Model Number Reference Number Ξ

*For Wet Scrubber give Gallons per minute Water Flow and Water Pressure if known.

FORM C MANUFACTURING PROCESS OPERATIONS

- 1. Company Name, Address, Operating Schedule, and Year for which information is given at top of page. Use data for most recent calendar year available.
- 2. Reference Number. Use an identifying number for each manufacturing process which emits matter to the air and use the same number on all three pages of this form to identify information for the same operation.
- 3. Process or Unit Operation Name. Identify the unit or process section for which information is given by name.
- 4. Rated Process Capacity. Give in tons per hour the maximum rated capacity of the process or unit identified, wet weight.
- 5. Feed input. Process rate in wet tons per hour and wet tons per year of materials fed to the operation.
- 6. Number of Emission Points to Air. Number of stacks, vents, etc. which emit materials to air.
- 7. Product Output. Product rate in wet tons per hour and wet tons per year from the operation.

Page 2, Form C

- 8. Reference Number. Use same number as on Page 1 of form to identify information for same process or operation.
- 9. Stack Data (or outlet of air cleaning device)
 Stack Height in feet above ground.
 Stack Inside Diameter in Feet.
 Exit Gas Velocity in feet per second. (SCFM may be used if velocity is not known; specify units as SCFM if used)
 Exit Gas Temperature in degrees F.
- 10. Air Pollution Control Equipment.

 Manufacturer and Model Number. Nameplate Data.

 Type. Use Table 1, Page 16. If a wet scrubber, give water flow in GPM and water pressure if known.

 Collection efficiency. Design and actual collection efficiency if known.

Page 3, Form C

- 11. Reference Number. Use same number as on Pages 1 & 2 of form to identify information for same process or operation.
- 12. Process Emissions. Give in pounds per hour and tons per year the amount of emissions from the process or operation of each of the two pollutant categories so that process rates versus emission rates may be compared with Regulations. Identify the units of measure used. Give the basis of the estimates of pollutants emitted (stack tests, Material Balance, emission factors, etc.)

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	Company Name		Address					
			,	-				
HERCULES	ES INC	PO BOX 1937	1937 HA	MTIESBURG	G M133			
	Operating Schedule	Information for Calendar Year	alendar Year		Date			
24 H	Hours / Days / Year	19 60=71	11	9-2	9-20-72			
			Rated Process	Feed	Input	Number of	Product Output*	Output*
Reference Number	Process or Unit Operation Name		Capacity Tons/Hour	Quantity Per Hour	ity Quantity	Emission Points To Air	Quantity Per Hour	Per Year
,	Mir. Room		53.9	56.7	296.064	OPEN PAKESS	50.7	296,064
,	Portowood House		116.1	109.2	956.943	4	109.2	856,798
1 00	1		73.8	69.5	(408, 909	/	69.5	608,880
7	ATILL HOUSE		4	3,0	26,255	/	3.0	26,253
F	XITE		37.4	35.2	308 192	/	35.2	308, 132
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FORM C PAGE 2

(FOR AGENCY USE ONLY)

							•		- 67		
	Efficiency	Actual									
11	Collection Efficiency	Design									
Air Pollution Control Equipment	Tvoe*	(use Table 1)	22	22	3						
Air Polluti	Manufacturer and Model Number		Whole Low sace Towns By Die Beubber 32	" "							
	Exit Gas Temperature	0F	,001	920							
Stack Data	Exit Gas Velocity	Feet/Sec.	191	11.0							
Ì	Inside Unit Dia.	Feet	0.33	0.33	,						
	Height	Feet	40	40							
Doforono	Number		2,3,4	Po							

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known.

FOR!	M	С	PA	GE	3
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(FOR AGENCY USE ONLY)

12 11 Process Emissions* Others (Specify by chemical composition) Reference Number Basis for Estimation (Agency Comments Only) Sulfur Oxides **Particulates** METHYL 130BUTYL KETONE MEASURED

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

- A. Company Name, Address & Year for which information is given at top of page.
- B. Type Waste. Describe type of waste materials (paper, garbage, wood crates, sawdust, coal refuse, etc.)
- C. Maximum amount per day in pounds.
- D. Average amount per year in tons.
- E. Method of Disposal. Use codes at bottom of form (1*).

Page 2, FORM D INCINERATION

- 1. Type of Incinerator. Check which applies.
- 2. Manufacturer, Model Number, Capacity in Pounds per Hour and type waste on which Capacity is based (Nameplate Data).
- 3. Average Quantity Burned in Pounds per Day and Tons per Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Date.
 Type. (Natural Gas, #2 Oil, etc.)
 Amount per year. Specify Gallons, Cubic Foot, etc.
 Heat content of Fuel. BTU per Gallon, Cubic Foot, etc.
 Percent Sulfur. Average Sulfur Content of Auxiliary Fuel.
 Percent Ash. Average Ash Content of Auxiliary Fuel.
 Fuel Supplier's Name if Ash and Sulfur Content are not known.
- 6. Pollution Control Equipment on Incinerator. Manufacturer of Control Device. Model Number of Control Device. Percent efficiency of Control if Known. Type. Venturi Scrubber, Baghouse, etc. as outlined on other forms. GPM Water Flow if Control Device is a Wet Scrubber.
- 7. Stack Data. Height in Feet above Ground. Inside Exit Diameter in Feet. Exit Gas Velocity in Feet per Second. Exit Gas Volume if Velocity not Known. Exit Gas Temperature in Degrees F if known.
- 3. Estimated Emission from Refuse Incineration. Give amounts in tons per year and basis of estimates for each of the five listed pollutants.

FORM D REFUSE DISPOSAL AND INCINERATION

Company Name	/ Name	Information for Year	(Agency Use Only)
HEREWLES I	Ne	1971	
Address	FBSS	Date	
70 BOX 1937 HAYS	Mesoure miss	9-20-72	
B Description of Waste Materials	U	۵	ш
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	1* Method of Disposal
NONE			
If Waste Disposal is by Incineration, Specify the Following:	secify the Following:		
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)	Rotary Flue Fed	
2. Manufacturer's Name:			
Rated Capacity	Pounds / Hour		Tyrne Marte
3. Quantity Burned:	Pounds / Day		276844
4. Operating Schedule	Tons / Year		
	Days / Year		*1 Disnocal Method Codes
			5. Burned in Boiler or Furnance
		2. Landfill (No Burning)	6. Other (Specify)
		3. Incinerator (Complete rest of Form) 4. Conical Burner (TeePee)	i of Form)

FORM D PAGE 2

FORM D PAGE 2	5	7
	(AGENCY USE ONLY)	
		
oe .		
ount/Year (Specify Units)	5	
t Content		
cent Sulfur	9	
cent Ash	4	
plier's Name		
Manufacturer		
Model Number		
% Efficiency	2	
Туре		
GPM Water Flow (If Wet Scrubber)		
(a) mad a. u.a.a. (
Height		Feet
Inside Exit Diameter		Feet
Exit Gas Velocity		Feet/Sec.
Exit Gas Volume		SCFM

5.	Auxiliary	y Fuel:		т,	уре		
				A	mount/Year (Specify Units)	
				Н	eat Content		
				P	ercent Sulfur		
				Po	ercent Ash		
				Sı	upplier's Name		
6.	Pollution	Control	Equipm		Manufacturer		
					Model Number		
					% Efficiency	2	
					Туре		
					GPM Water Flow (If Wet Scrubber)		
7.	Stack Data:				Height		Feet
				1	Inside Exit Diameter		Feet
				94	Exit Gas Velocity		Feet/Sec.
					Exit Gas Volume		SCFM
					Exit Gas Temp.		o _F .
8.	Estimated	Emission	s From	Refuse	Incineration:		
		Name:				Basis of Estimates:	
		Particul	ates		Tons/Year		
		Sulfur 0	xides		II		

TABLE 1 CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

00 Group - CONTROL BY COMBUSTION

01 catalytic combustion 02 furnace combustion 03 boiler firebox

04 steam injection flare

05 venturi flare

06 direct flame combustion (afterburner)

10 Group - ADSORBERS

10 activated carbon — nonregenerative
11 activated carbon — regenerative
12 silica gel — nonregenerative
13 silica gel — regenerative
14 lithium chloride
15 activated alumina
16 activated bauxite

20 Goup - ABSORBERS

20 sieve plate tower 21 bubble-cap tower 22 packed tower

Particulate Matter — Liquid Mist Control Equipment

30 Group - DRY SEPARATORS AND FILTERS

30 simple cyclones

31 high efficiency cyclones

32 settling chamber
33 simple filters
34 baghouse (shaking)
35 baghouse (reverse jet)
36 dry collector (dynamic)

40 Group - WET COLLECTORS

40 spray chamber — no baffles 41 spray chamber — with baffles 42 wet cyclones — rotoclone 43 wet dynamic precipitator 44 venturi scrubber

45 spray tower (not absorption — scrubbers) 46 packed tower (not absorption — scrubbers)

47 condensors (tube and shell); air 48 barometric condensor with hot wells

50 Group - ELECTRICAL PRECIPITATORS

50 single stage 51 double stage 52 precipitron

60 Group

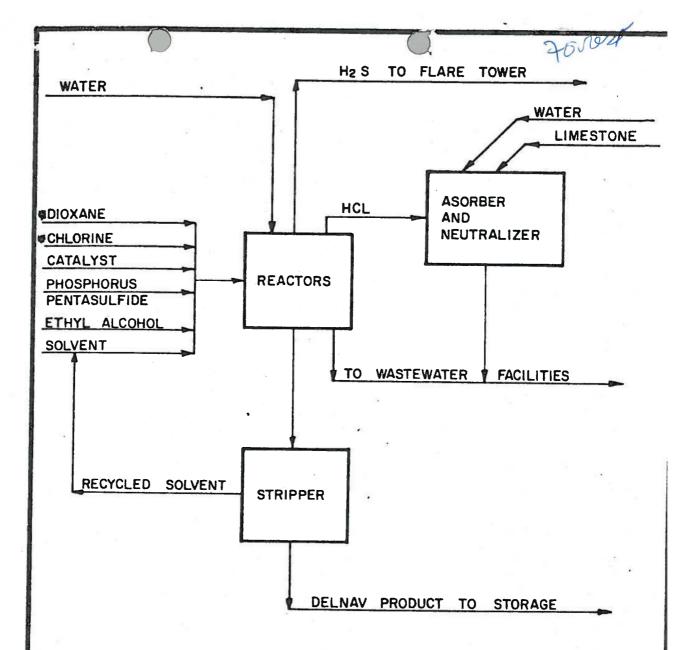
60 Counteractant

70 Group - SPECIAL

71 Jet exhausters (air dilution)

72 Mist eliminators

80 Group — Other Specify



*ANOTHER PRODUCT REQUIRES N-(1,2-DICHLOROETHYL) PHTHALIMIDE AS A SUBSTITUTE INGREDIENT.

HERCULES INCORPORATED HATTIESBURG, MISSISSIPPI DELNAV FACILITY

CLARK, DIETZ AND ASSOCIATES — ENGINEERS, INC. JACKSON, MISSISSIPPI— URBANA, ILLINOIS

SEPTEMBER, 1973

DRAWING NO. 5

MISSISSIPPI AIR AND WATER POLLUTION CONTROL COMMISSION P. O. Box 827 JACKSON, MISSISSIPPI 39205

APPLICATION FOR PERMIT TO OPERATE EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received:	g.	
Facility No.:	. 1910	
AOCR:		

Most Usage % Space heat Page 1 for Agency use Only 2. Boiler, Other (specify)
3. Air Heating for Space Heating
4. Air Heating for Process Usage
5. Others (specify) % Process 2* USAGE CODES 1. Boiler, Steam Usage (use code 2*) ဖ Type of Burner Unit (use code 1*) Date FORM B FUEL BURNING EQUIPMENT
(Except for Refuse Disposal) ល Address Information for Calender Year Rated Capacity 10⁶BTU/hr t 4 6. Multiple port ges
7. Forced draft gas
8. Atomizing Oil (Stove of Air)
9. Atomizing Oil (Mechanical)
10. Rotary Cup Oil
11. Others (specify) 19 Manufacturer and Mobel Number 2 Pulverized coal
3. Spreader Stoker
4. Hand fired
5. Other stoker (specify) က 1* BURNER CODES 1. Cyclone furnace Hours / Day Days / Week Weeks / Year Company Name Operating Schedule Reference Number

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FORM C

					Product Output* Quantity Par Hour	3.278													
				20	Produc Quantity Per Hour	0.38			-						7				er G
					Number of Emission Points To Air	co								8				41	
		Date	E * -		Feed Input tity Quantity our Per Year	3,378						14	A	33	11				
<u>u</u>					Feed Quantity Per Hour	0.38													
Address		Information for Calendar Year	61 E.Z. 61	Ųā.	Rated Prc.nes Capacity Tons/Hour	0.38	ă.		10.0										
	14. 14.	Information f	19		не	9		3	100		12								
Company Name		Operating Schedule	Hours / Days 365 Days / Year		Process or Unit Operation Name	DELNAY FLANT							9	•		(i)			
8) 8))S	24 Ho		Reference Number		8			3				9)			13		-

FORM C PAGE 2

(FOR AGENCY USE ONLY)

Handler Etticis		Actual											
Politonian Patiente													
rection Emicien				3									
Design		*											
Type* (use Table 1)		05	6	80	80	40	200	280	280	24	200	28	80
	(A)E.3	V3.3377											
Manufacturer and Model Number JOHN ZINK FLAKE TOWER	ZINK FLAKE TH		LIMESTONE TANKS		2 VENT	o Vent	o Vent	o Vent	o Vewr	o VewT	o Vews	o Vews	2 Vews
Manufactu VCHN ZIN	JOHN ZIN		LIMESION	Sumo Vent	2								
Temperature OF	ı		7	1									
Velocity Feet/Sec.	-	1	. !	ļ	100								
Unit Dia. Feat	_	1	∞	0.33									
Height	•	100	10	14	1-1-1					 			
	1	. 9											

*For Wet Scrubbers Give Gallons per minute Water Flow and Water Pressure if known. FORM C PAGE 3 .

(FOR AGENCY USE ONLY)

11		12			
1 8 6 F		Process Emissions®			
Reference Number	Particulates	Sulfur Oxides	Others (Specify by chemical composition)	Basis for Estimation	(Agency Coments Only)
14	None DETENDED	141 Tows /YR		EALC	
18	N. D.	N. D.		CALC Mensured AREA	8 - 2
10	N. D.	N.D.			
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(4)	laga er			81 6 12	•

^{*}Please Express Emissions as Tons per Year and Pounds per Hour and Identify Units Being Used.

FORM D REFUSE DISPOSAL AND INCINERATION

· Company Name	Ä	Info	Information for Year	(Agency Use Only)
		8		
Address		-	Date	
		# . **		
B Description of Waste Materials	ပ		Q	
Type (Describe)	Maximum Amount Per Day (Pounds)	*.	Amount Per Year (Tons)	1* Method of Disposal
None))			
		2) (b)	7	
ð	•	1		
	N .			
If Waste Disposal is by Incineration, Specify the Following:	. Following:			
1. Type of Incinerator:	single chamber multiple Chamber Modified (describe)		Rotery Flue Fed	
		e E		
10 20 21	S. 1			
2. Manufacturer's Name:				
Model Number		27		
Rated Capacity 3. Quantity Burned:	Pounds / HourPounds / Day	Hour Day	Type Waste	Vasto
4. Operating Schedule	Tons / Year Hours / Day	ar Jay		
	Days / Year	ar	·101	*1 Disposal Method Codes
			1. Open Burning 2. Landfill (No Burning)	5. Burned in Boiler or Furnance 6. Other (Specify)
(4)			A the taken of the contraction of the taken of taken of the taken of the taken of taken	