

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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W. H. MOORE

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

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 019

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS.

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL

*** 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 FORAL & STAYBELITE PLANT

TELEPHONE 601 5846411
 CONTACT CHARLES JORDAN
 ENGINEER MIKE KENNEDY

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION TYPE (18)	CARD TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	019	02	7	16	18-MONTH INSPECTION

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

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED	08/06/75	TELEPHONE	601 5846411
COMPANY NAME	HERCULES INC OF HATT	CONTACT	CHARLES JORDAN
ADDRESS	WEST 7TH STREET	ENGINEER	MIKE KENNEDY
CITY-STATE-ZIP	HATTIESBURG MS 39401		
DESCRIPTION	FLAKING HOUSE - H R A		

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	018	02	7	16	18-MONTH INSPECTION

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

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	017	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	016	02	7	16	18-MONTH INSPECTION

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

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
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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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	015	02	7	16	18-MONTH INSPECTION

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

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED	08/06/75	TELEPHONE	601 5846411
COMPANY NAME	HERCULES INC OF HATT	CONTACT	CHARLES JORDAN
ADDRESS	WEST 7TH STREET	ENGINEER	MIKE KENNEDY
CITY-STATE-ZIP	HATTIESBURG MS 39401		
DESCRIPTION	TRULINE FLAKG BELT & PACK		

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION TYPE (18)	CARD TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	014	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

FORREST 112

SRO

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED 02/18/75 TELEPHONE 601 544-4111
 COMPANY NAME TEXCOLES L.C. OF HATT CONTACT CHARLES JONES
 ADDRESS 11715 STREET SULLY DAVIS
 CITY-STATE-ZIP CATTRESSBURG MS 39401
 DESCRIPTION POLYMERIZED VINYL MILL

AGCY	COUNTY	SOURCE	ST. RT.	ACTION	DATE	ACTION	ACTION	DESCRIPTION
CODE	CODE	CODE	CODE	CODE	TYPE	TYPE	TYPE	
(1-3)	(4-7)	(8-12)	(13-15)	(16-17)	(18)	(19)	(20-23)	
110	110	110	110	110	7	08		INSPECTION

DATE REFORMED	COMPLETED ACTION	HOURS TAKEN	UPDATE
(24-29)	RESULTS	TO COMPLETE	CODE
(30-39)	(40-49)	(50-59)	(60)
3-19-75			

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

1. SCOUT--IS POLYMERIZED VINYL MILL
2. OPERATING VERIFY

***** FOR ENGINEERING USE ONLY *****

NEXT-ACTION	DATE	STAFF	NEXT-ACTION	DATE	LETTER	UPDATE
NUMBER	TYPE	NUMBER	TYPE	NUMBER	CODE	CODE
(16-17)	(18)	(19-20)	(21-22)	(23-24)	(25-26)	(27-28)
XX	7					

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

CARD	LINE	COMMENTS	DATE
TYPE	NUMBER	(29-34)	CODE
(16)	(17)		(60)
1	1	-----	
2	2	-----	
3	3	-----	
4	4	-----	
5	5	-----	
6	6	-----	
7	7	-----	

MAR 26 REC'D
 WBR

03 27 75

RECEIVED

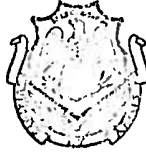
FEB 12 1975

& WATER POLLUTION
 CONTROL COMMISSION
 STATE OF MISSISSIPPI

pr

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE 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 pulverized 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

WA:jw

CC:  Mr. Gingles

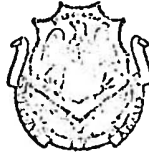
RECEIVED

MAR 26 1975

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE 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 pulverized 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

WA:jw

CC: Mr. Gingles ✓

REGISTERED

MAR 26 1975

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	012	02	7	16	18-MONTH INSPECTION

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

C

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

NO COMMENTS

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
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8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED	08/06/75	TELEPHONE	601 5846411
COMPANY NAME	HERCULES INC OF HATT	CONTACT	CHARLES JORDAN
ADDRESS	WEST 7TH STREET	ENGINEER	MIKE KENNEDY
CITY-STATE-ZIP	HATTIESBURG MS 39401		
DESCRIPTION	PACKAGE BOILER NO 5		

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION TYPE (18)	CARD TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	011	02	7	16	18-MONTH INSPECTION

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

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

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

***** FOR ENGINEERING USE ONLY *****

NEXT-ACTION NUMBER (16-17)	CARD TYPE (18)	NEXT-ACTION DATE (MO/DAY/YR) (60-65)	STAFF MEMBER (66-68)	NEXT-ACTION TYPE (73-74)	HRS TO COMPLETE (75-76)	LETTER CODE (77-78)	UPDATE CODE (80)
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CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
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8	4	-----	N
8	5	-----	N
8	6	-----	N
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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 REPORTING: Judy Linskey

General report is in entire source file.

Air & Water Pollution Control Commission

Forrest

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



009
+
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
HATTIESBURG

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
Jackson, Mississippi 39205

Attention: J. Calvin Thames

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 S. Jordan

Charles Jordan
Senior Chemical Engineer

CJ:bs

Enclosure

File Forrest C.

010

Blueprint
is in
EM. PT 009
FILE
JR

Cal

FILE REPORT
201

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

August 8, 1975

RECEIVED

AUG 11 1975

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

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 structural 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 *CHS*
Sr. Chemical Engineer

CSJ:p

FILE COPY

July 18, 1975

Janest

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

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN
BASSFIELD

OIL & GAS BOARD
QUINCY R. HODGES

BOARD OF HEALTH
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MARINE CONSERVATION
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HERMIT A. JONES
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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

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YAZOO CITY

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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
WEST 7TH STREET
HATTIESBURG MS 39401

Forest

06/20/75

CONTACT CHARLES JORDAN
SUBJECT COMPLIANCE SCHEDULE STEP
COMPLIANCE BY-
DATE 07/31/75

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 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.

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,

Mike Kennedy
~~MIKE KENNEDY~~

DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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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PAUL BURT

GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

goverst

06/20/75

CONTACT CHARLES JORDAN
SUBJECT COMPLIANCE SCHEDULE STEP
DATE COMPLETE CONSTRUCT.-
07/01/75

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 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.

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

VERY TRULY YOURS,

Dwight B. Burkes
DWIGHT BURKES
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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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DR. JOHN M. KING

A & I BOARD
PAUL BURR

GEOLOGICAL SURVEY
W. H. MOORE

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

garest

04/24/75

CONTACT CHARLES JORDAN
SUBJECT COMPLIANCE SCHEDULE STEP
 COMPLETE CONSTRUCT.-
DATE 05/01/75

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 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,

Mike Kennedy
MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

WBA

**State of Mississippi
Air and Water Pollution Control Commission**

**TOLERANCE
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 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, ch. 58) 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 a part of this permit.

Issued this 1st day of April, 19 74

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 31st day of July, 19 75

Facility No. 0800-00001-010

ADDITIONAL CONDITION NO. 15 IS ATTACHED

Nº 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.

COMPLIANCE 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 ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	008	02	7	16	18-MONTH INSPECTION

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

C

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

1 SOUTH-INSPECTION TO BE MADE BY MAIN
2 OFFICE ENGINEER-CHECK FUGITIVE DUST
3 AND ODOR

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	006	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

NEXT-ACTION NUMBER (16-17)	CARD TYPE (18)	NEXT-ACTION DATE (MO/DAY/YR) (60-65)	STAFF MEMBER (66-68)	NEXT-ACTION TYPE (73-74)	HRS TO COMPLETE (75-76)	LETTER CODE (77-78)	UPDATE CODE (80)
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8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	N

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: 110-0800-00001

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DATE: March 22, 1976

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PERSON REPORTING: Judy Linskey

General report is in entire source file.

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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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

M E M O R A N D U M

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COMMISSION
CHARLES H. LYLES

BOARD OF WATER
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JOE STONE
HATTIESBURG

ASSOCIATE MEMBERS

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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 SO₂ that will be required if the company proceeds with plans to increase the H₂S 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

Forrest

Delmar Plant

October 21, 1975

Mr. Charles S. Jordan
Hercules Incorporated
P.O. Box 1937
Hattiesburg, 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, Federal Register is a discussion of an SO₂ reference method utilizing wet analysis.

The photocopy from the APCA Journal lists suppliers of instrumentation used in SO₂ determination.

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

We suggest that you determine, as soon as possible, the sites you propose to locate monitors, 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.

--Continued--

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

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

If you have any questions, please contact us.

Very truly yours,

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

WBA:er

Enclosures

Jonest

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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RAY TRIBBLE
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MONEY

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GLEN WOOD, JR., EXECUTIVE DIRECTOR
P. O. BOX 827 - ROBERT E. LEE BUILDING
JACKSON, MISSISSIPPI 39208

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
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JOE STONE
HATTIESBURG

ASSOCIATE MEMBERS

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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 SO₂ limit will be met or that you have developed an SO₂ 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 B. Anderson
Wayne B. Anderson
Chief of Engineering
Division of Air Pollution Control

WBA:sr

cc: Charles S. Jordan

Wagon - Commit

FILE

DELNAV
PLANT
005

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:

APPLICATION TO EXPAND DELNAV PLANT

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 SO₂ 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

By:

Frank H. Gardner, Jr.
Chemical Superintendent

FHGJR:p

LETTER SENT DENYING
APPL UNTIL DATA SUBMITTED
TO SHOW COMPLIANCE WITH
2000 PPM LIMIT OR MONITORING
ARRANGED PER 4.2(B) (2) (TH. PARK)
WBA 10/17/75

1/ Jones

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

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CHAIRMAN
MONEY

JAMES W. CARRAWAY
VICE CHAIRMAN
BASSFIELD

BOARD OF HEALTH
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CHARLES W. ELSE
YAZOO CITY

GAME & FISH COMMISSION
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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

September 26, 1975

COMMISSIONERS

MARINE CONSERVATION
COMMISSION

CHARLES H. LYLES

BOARD OF WATER
COMMISSIONERS
JACK PEPPER

JOE STONE
HATTIESBURG

ASSOCIATE MEMBERS

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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 SO₂ 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 SO₂ control to meet 2000 ppm now.

If you have any questions, please contact us.

Very truly yours,

Wayne B. Anderson

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

WBA:dw

file
Forest

005

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

June 9, 1975

RECEIVED

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

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 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 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)
25.5 Hours Downtime) 37.5 Hour Cycle

Flare Gas Composition: 89% H₂S
11% Benzene

H₂S Flow Rate: 13.2 Grams/Second

Estimated Flame Temperature: 1600°F.

219.55-27/48

005

FILE COPY

May 9, 1975

Mr. Fred Lane, Plant Engineer
(Hercules Incorporated)
West 7th Street
Hattiesburg, Mississippi 39401

Janest

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,

E. P. Hardison, Jr.
Senior Plan Review Engineer
Division of Air Pollution Control

EPHjr:bw

Wams
File
Forrest
Empt. 005

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



MEMORANDUM

TO: Charles Chisolm and Jerry Stubberfield THIS COPY FOR
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.

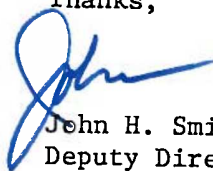
Specifically at Hercules, Inc. in Hattiesburg. This was reported:

AIR: H_2S 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,


John H. Smith
Deputy Director

JHS:bc

Forrest

Hercules & nc.

8/28/1973

Dalnav Facility, Hattiesburg

11 ϕ - ϕ 8 ϕ ϕ - ϕ ϕ ϕ ϕ - ϕ ϕ 5

Forrest County

Although there are concentrations of SO_2 up to $28 \mu g/m^3$ approximately 0.5 km north and south of the Dalnav plant, the concentration drops off quickly. It is $10 \mu g/m^3$ at approximately 1.5 km away and $5 \mu g/m^3$ at approximately 2.5 km away.

DEC

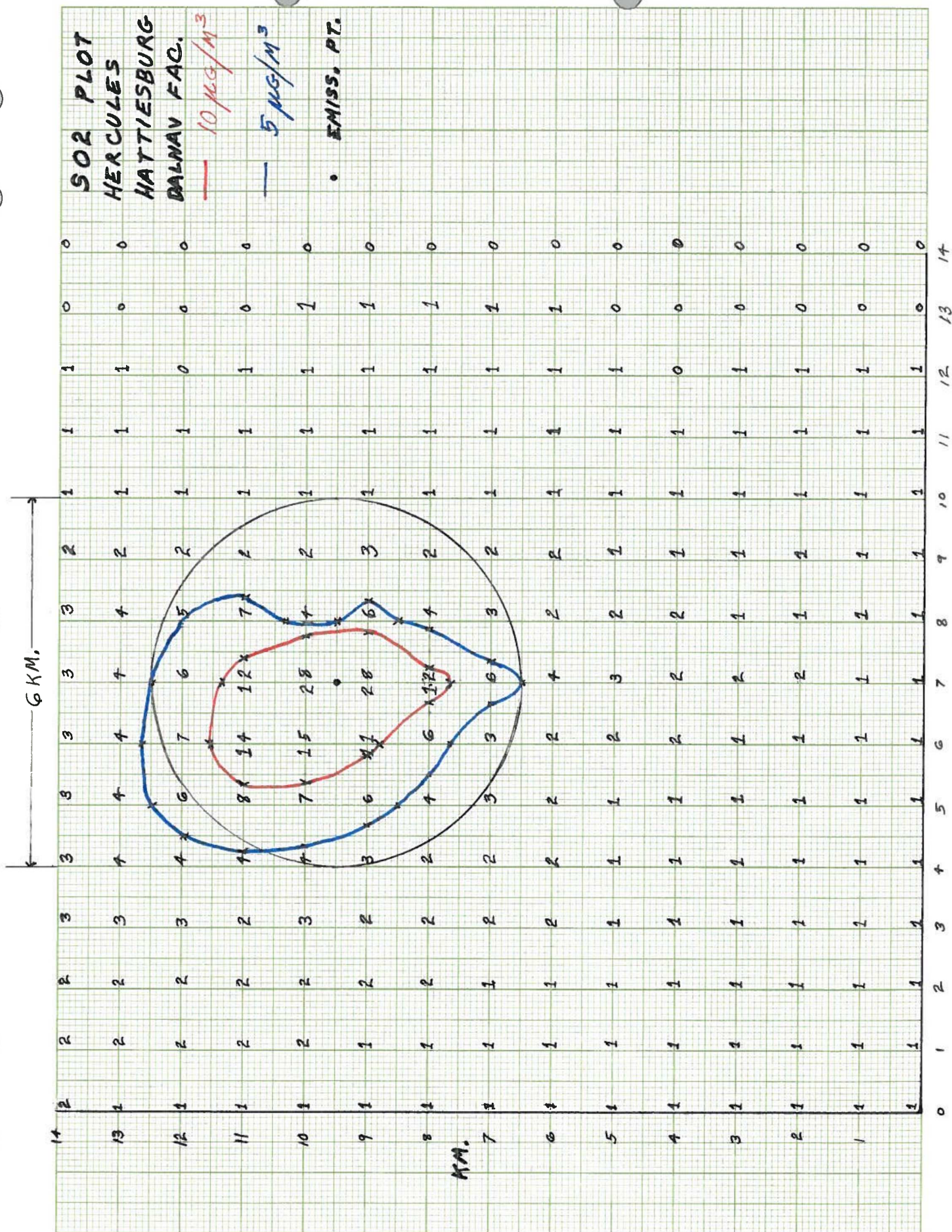
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88. NSO2=
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'HERCULES, HATTIESBURG (SO2)

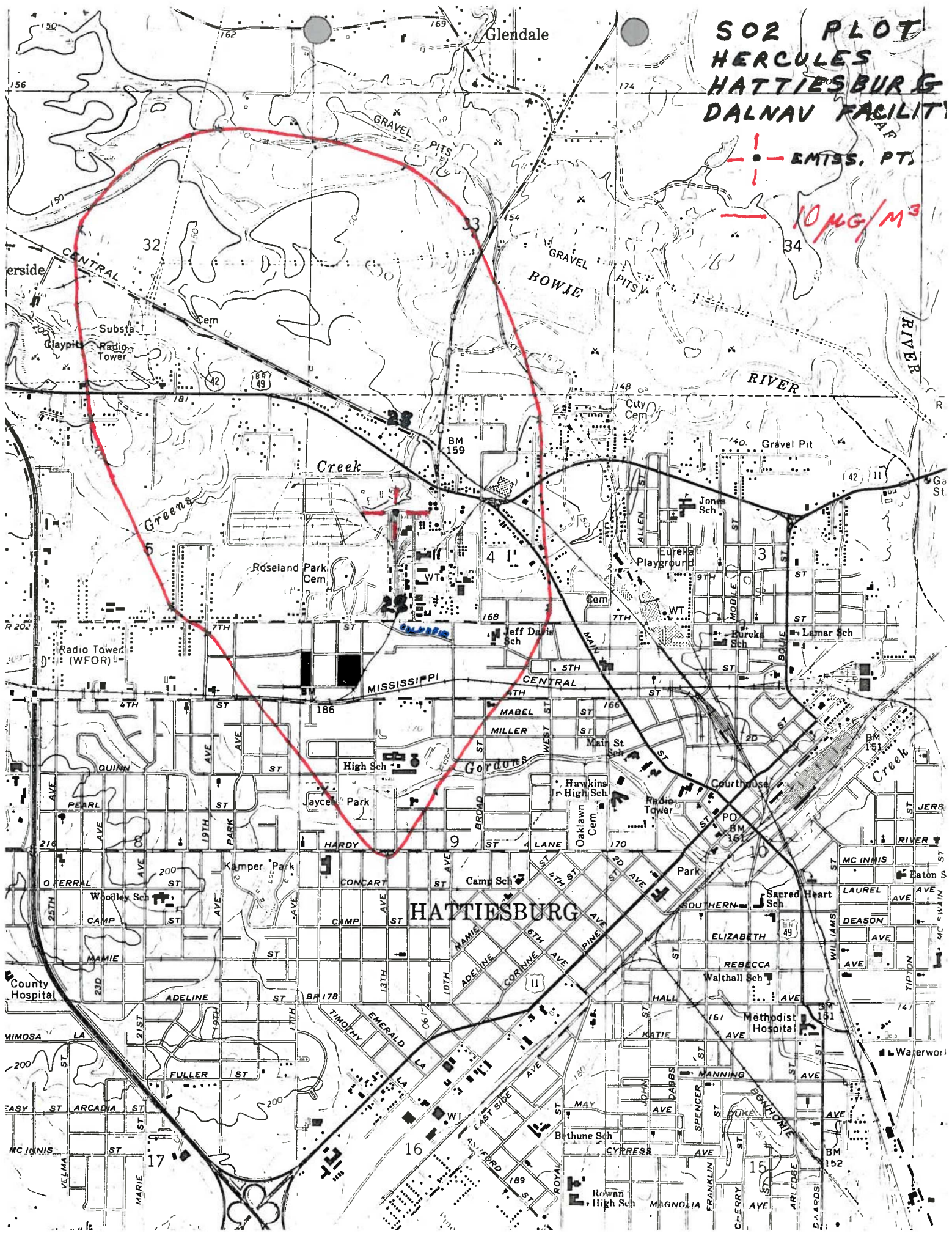
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.000161,	.000685,	.000000,	.000000,	.000000,	.000000,
.000214,	.000000,	.000000,	.000000,	.000000,	.000000,
.000082,	.005616,	.004384,	.000000,	.000000,	.000000,
.007274,					
1000.,					
289.,					
1013.,					
0,					
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0.,	0.,				
1,	1.,				
0.,					
1,	0.0,				
0.0,					
15,					
15,					
1.,					
1,					
113,					
6.21,					
1.0,	3.0,	24.0,			

DEC',



**S02 PLOT
HERCULES
HATTIESBURG
DALNAV FACILITY**

MISS. PT.
 $10 \mu\text{G}/\text{M}^3$



*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION TYPE (18)	CARD TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	005	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

June 20, 1975

MISSISSIPPI DEPARTMENT OF REVENUE
JUN 23 1975
JACKSON, MISSISSIPPI

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	08/06/75	TELEPHONE	601 5846411
COMPANY NAME	HERCULES INC OF HATT	CONTACT	CHARLES JORDAN
ADDRESS	WEST 7TH STREET	ENGINEER	MIKE KENNEDY
CITY-STATE-ZIP	HATTIESBURG MS 39401		
DESCRIPTION	UNION IRON WORKS BOILERS		

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	004	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	003	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION NUM (18)	CARD TYPE (52-53)	ACTION TYPE	ACTION DESCRIPTION
110	0800	00001	001	02	7	16		18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: 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
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

Forest

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

06/30/75

CONTACT CHARLES JORDAN
SUBJECT PERMIT APPLICATION RECIEVED
DATE 09/24/75

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 000

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 B. Burkes
DWIGHT BURKES
DIV. OF AIR POLLUTION CONTROL

WBA

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 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 74.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-035

694

ADDITIONAL CONDITION IS ATTACHED
MPC FORM

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.: _____

AQCR: _____

#35 *Paracat*



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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

19

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process
% 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
11. Others (specify)

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)

[illegible]

Fuel Type

Supplier

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

(FOR AGENCY USE ONLY)

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials		C	D	E
Type (Describe)	Amount Per Year (Tons)	Method of Disposal		
<i>None</i>				

If Waste Disposal is by Incineration, Specify the Following:

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	Type Waste
Pounds / Day	
Tons / Year	
Hours / Day	
Days / Year	

4. Operating Schedule

*1 Disposal Method Codes

- | | |
|--|---------------------------------|
| 1. Open Burning | 5. Burned in Boiler or Furnance |
| 2. Landfill (No Burning) | 6. Other (Specify) |
| 3. Incinerator (Complete rest of Form) | |
| 4. Conical Burner (TeePee) | |

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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**

WBA

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 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.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-034

MPC FORM

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.: _____

AQCR: _____

#34 Column 5 at Ten O'.

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

INTERMITTENT

19 12

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process
Most Usage
% Space heat

1

Riley Stoker Low Boiler

13.3

6

2 (DOWNSTREAM)

100

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)

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)

Supplier

Fuel Type

FUEL SUPPLIERS:

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

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

*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 Data.
 - 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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
None				

If Waste Disposal is by Incineration, Specify the Following:

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	Type Waste
Pounds / Day	
Tons / Year	
Hours / Day	
Days / Year	

4. Operating Schedule

*1 Disposal Method Codes

- | | |
|--|---------------------------------|
| 1. Open Burning | 5. Burned in Boiler or Furnance |
| 2. Landfill (No Burning) | 6. Other (Specify) |
| 3. Incinerator (Complete rest of Form) | |
| 4. Conical Burner (TeePee) | |

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group – 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 condensers (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

NBA

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 Synthetic Pine Oil Facility

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

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

Issued this 6th day of February, 19 74.

AIR AND WATER POLLUTION CONTROL COMMISSION

Glen Wood Jr.
Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-033

ADDITIONAL CONDITION IS ATTACHED
MPC FORM

692



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.: _____

AQCR: _____

#33 SYNTHETIC TWO DIE



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
2. Mailing Address		County	Location (UTM or LAT-Long)
3. City	State	Zip Code	Telephone
4. Name of Person Completing Form		Title	
5. Person to Contact on Air Pollution Matters			
Title		Telephone	
6. Major Activity			
SIC number — — — —			
<input type="checkbox"/> Manufacturing or Processing	<input type="checkbox"/> Office	<input type="checkbox"/> Warehouse	
<input type="checkbox"/> Retail or Wholesale Store	<input type="checkbox"/> Hotel or Motel	<input type="checkbox"/> Residential or Apts.	
<input type="checkbox"/> School or Church	<input type="checkbox"/> Hospital or Lab	<input type="checkbox"/> 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.

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).

(FOR AGENCY USE ONLY)

[illegible]

Fuel Type

Supplier

[illegible][illegible]

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

11

12

[illegible]

***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 Data.
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		Information for Year		(Agency Use Only)
Address		Date		

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
NONE				

If Waste Disposal is by Incineration, Specify the Following:

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	Type Waste
Pounds / Day	
Tons / Year	
Hours / Day	
Days / Year	

4. Operating Schedule

*1 Disposal Method Codes

- | | |
|--|---------------------------------|
| 1. Open Burning | 5. Burned in Boiler or Furnance |
| 2. Landfill (No Burning) | 6. Other (Specify) |
| 3. Incinerator (Complete rest of Form) | |
| 4. Conical Burner (TeePee) | |

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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



3 . 4





WBA

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 this 6th day of February, 19 74.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-032

MPC FORM

ADDITIONAL CONDITIONS ARE ATTACHED

691



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 Agency

Date Received: _____

Facility No.: _____

AQCR: _____

232 Crude Turps Being Out .

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

19

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process

% 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
11. Others (specify)

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)

(FOR AGENCY USE ONLY)	
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[illegible]

Fuel Type

Supplier

[illegible][illegible]

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)			Method of Disposal 1*
None					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day

Tons / Year

Hours / Day

Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WDA

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 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.

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. 0800-00001-031

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

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

APPLICATION FOR PERMIT
TO OPERATE
EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received: _____

Facility No.: _____

AQCR: _____

#21 Oxidation Dmg for PMHF

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

1 Company Name

Address

for Agency use Only

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

Date

19

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

NONE

Rated Capacity
10⁶ BTU/hr

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)

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)

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

Fuel Type

Supplier

[illegible][illegible]

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

11

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal		
<i>None</i>					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group – 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 condensers (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

WGA

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.

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. 0800-00001-030

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

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.: _____

AQCR: _____

#30 p-Menthane

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

Company Name

Address

for Agency use Only

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

Date

19

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

None

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process
Most Usage
% 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)

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)

(FOR AGENCY USE ONLY)	
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[illegible]

Fuel Type

Supplier

[illegible][illegible]

(FOR AGENCY USE ONLY)

12

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*	
None					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnace
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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**

WBA

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-Cymene Unit

Operation of such a facility shall be in accordance with the provisions of the Mississippi Air and Water Pollution Control Act, (Mississippi Laws, 1966, ch. 258) and the rules adopted and promulgated thereunder, or this permit may be revoked by the Mississippi Air and Water Pollution Control Commission. The plans, specifications, schedules, dates and other data 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. 0800-00001-029

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

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.



1



2

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: _____

#29

p-Cymene



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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 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

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

Date

19__

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process
Most Usage
% 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
11. Others (specify)

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)

Supplier

Fuel Type

FUEL SUPPLIERS:[illegible][illegible]

(FOR AGENCY USE ONLY)

(FOR AGENCY USE ONLY)	
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***For Wet Scrubber give
Gallons per minute Water
Flow and Water Pressure if known.**

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

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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

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

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)			Method of Disposal
<i>None</i>					

If Waste Disposal is by Incineration, Specify the Following:

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	Type Waste
Pounds / Day	
Tons / Year	
Hours / Day	
Days / Year	

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____
 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 Refuse 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 Group — 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 condensers (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**

WPA

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 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.

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. 0800-00001-028

687

MPC FORM

ADDITIONAL CONDITION 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.: _____

AQCR: _____

228 *Papyrus & Paper*  

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number _ _ _ _

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

(FOR AGENCY USE ONLY)	
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[illegible]

Fuel Type

Supplier

(FOR AGENCY USE ONLY)

(FOR AGENCY USE ONLY)

[illegible]

***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.)

PAGE 1

Company Name	Address	
Operating Schedule	Information for Calendar Year	Date
24 Hours / Days 365 Days / Year	19 702	

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

11

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*	
<i>None</i>					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
 2. Landfill (No Burning)
 3. Incinerator (Complete rest of Form)
 4. Conical Burner (TeePee)
 5. Burned in Boiler or Furnance
 6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBA

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 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.

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. 0800-00001-027

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 ADDRESS LINE 1: 613 West 7th Street LINE 2: LINE 3: MUNICIPALITY: Hattiesburg STATE CODE: MS ZIP CODE: 39401-	OTHER INFORMATION MASTER ID: 002022 COUNTY: Forrest REGION: SRO SIC 1: 2822 AIR TYPE: TITLE V HW TYPE: LARGE QUANTITY SOLID TYPE: WATER TYPE: INDUSTRIAL BRANCH: Chemical ECED CONTACT: Yassin, Mohammad BASIN:
MAILING ADDRESS LINE 1: 613 West 7th Street LINE 2: LINE 3: MUNICIPALITY: Hattiesburg STATE CODE: MS ZIP CODE: 39401-	
AIR PROGRAMS <input checked="" type="checkbox"/> SIP <input type="checkbox"/> PSD <input type="checkbox"/> NSPS <input type="checkbox"/> NESHAPS <input checked="" type="checkbox"/> MACT	



**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	NO
WATER	NPDES - MAJOR	MS0001830	Cook, Charles	NO
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	NO

Compliance Actions				
MEDIA	ACTIVITY TYPE	SCHEDULED	COMPLETED	INSPECTED B
WATER	CEI - NA	3/17/99	3/17/99	Yassin, Mohammad
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, Mohammad
HAZ WASTE	Compliance Evaluation Inspection	9/30/00		Yassin, Mohammad
AIR	State Compliance Inspection	9/30/00		Yassin, Mohammad
HAZ WASTE	Compliance Evaluation Inspection	6/30/99	6/30/99	Yassin, Mohammad
AIR	State Compliance Inspection	6/29/99	6/29/99	Yassin, Mohammad
WATER	CEI - NA	6/30/99	6/30/99	Yassin, Mohammad

Forest

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



Glen Wood, Jr.

EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

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GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 035

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 034

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 NINETY (90) DAYS PRIOR TO THE EXPIRATION DATE. APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REQUEST TO THE ADDRESS SHOWN ABOVE.

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HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0600

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 033

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS.

MIKE KENNEDY
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WEST 7TH STREET
HATTIESBURG MS 39401

09/26/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 032

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS,

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL

Forrest

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



Glen Wood, Jr.

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WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 031

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS.

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

John

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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SIXTH FLOOR ROBERT E. LEE BUILDING

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W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 030

GENTLEMEN

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

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VERY TRULY YOURS.

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 029

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS.

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

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WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 028

GENTLEMEN

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W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN
SUBJECT OPERATING PERMIT EXPIRES
DATE 02/06/77

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 027

GENTLEMEN

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VERY TRULY YOURS,

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HERCULES, INC. OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0600

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 026

GENTLEMEN

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

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

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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Glen Wood, Jr.

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TELEPHONE 354-6783

SIXTH FLOOR ROBERT E. LEE BUILDING

JACKSON, MISSISSIPPI 39205

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PAUL BURT

GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 025

GENTLEMEN

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

VERY TRULY YOURS.

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

August 6, 1976

Forest
110-0800-00001
Em Pt 024
Kymene Plant

RECEIVED

AUG

**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: 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

Charles S. Jordan

Charles S. Jordan
Senior Chemical Engineer

CSJ:p

Forrest

Air & Water Pollution Control Commission

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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GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

07/30/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT CERTIFICATION OF CONSTRUCTION

SOURCE NO. 00001

DATE 09/29/76

POINT NO. 024

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT YOUR APPROVAL TO CON-
STRUCT EXPIRES SOON.

PLEASE NOTE THAT UNDER COMMISSION REGULATIONS FINAL CONSTRUC-
TION 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 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.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT US.

VERY TRULY YOURS,

Judith A. Hickey
UNASSIGNED

DIV. OF AIR POLLUTION CONTROL


HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

November 1, 1976

*Forrest
Hercules SAC
Empt 024
Kymene Pelt*

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

Charles S. Jordan
Senior Chemical Engineer

CSJ:lh

RECEIVED

NOV 3 1976

**AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI**

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

JAMES W. CARRAWAY, CHAIRMAN
BASSFIELD

OIL & GAS BOARD
QUINCY R. HODGES

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MONEY



Glen Wood, Jr.

EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

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JACKSON, MISSISSIPPI 39205

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ASSOCIATE MEMBERS

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DR. JOHN M. KING

A & I BOARD
PAUL BURT

GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/26/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 024

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Forrest

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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Glen Wood, Jr.

EXECUTIVE DIRECTOR

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TELEPHONE 354-6783

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A & I BOARD
PAUL BURT

GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

08/20/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT PERMIT APPLICATION RECEIVED

SOURCE NO. 00001

DATE 11/16/76

POINT NO. 024

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,

JUDY LINSKEY
DIV. OF AIR POLLUTION 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
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.

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 238, Mississippi Laws of 1966.

1. Name of Facility - factory, mill, plant, etc. - Hattiesburg Plant of Hercules Inc.		Telephone 583-6161	
2. Location of Facility		Town Hattiesburg	County Forrest
5. Mailing address of Facility P. O. Box 1937		City Hattiesburg	Zip 39401
4. Name of Owner Hercules Incorporated		Telephone 583-6161	
5. Mailing address of Owner P. O. Box 1937		City Hattiesburg	Zip 39401
(6.) In-plant person to be contacted on pollution matters Charles Jordan		Title Senior Chemical Engineer	
7. Does facility have a corporate or main office elsewhere? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
8. If yes, complete corporate name and mailing address City State Zip HERCULES INCORPORATED 910 Market St., Wilmington, Delaware 19899			
9. Correspondence to be sent to 1 4 6 8 above. (circle one)			
10. Major activity of facility: <u>Manufacturing & Processing</u> Type of operation and products: <u>Chemicals</u> S.I.C. Number: <u>2861 (Major)</u> <u>2879 & 2822 (Minor)</u>			
11. Operating Schedule			
Normal	Hours per day 24	Days per week 7	Weeks per year 52
Seasonal or peak operation period	Hours per day 24	Days per week 7	Weeks per year 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)

<u>TYPE PERMIT</u>	<u>EXPIRATION DATE</u>	<u>FACILITY NO.</u>	<u>PROCESS OR EQUIPMENT PERMITTED</u>
<u>Operate</u>	<u>2/6/77</u>	<u>0800-0001</u> <u>-024</u>	<u>Kymene Plant</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

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 Permit 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 _____

3. 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.
4. Is this facility still operating at the location given in previous applications? Yes No

5. If No. 4 is no, complete the following:

New location: _____

New Mailing Address: _____

Was a request for approval to move made for this new location? ____ Yes ____ No

Was approval granted? ____ Yes ____ No

FOR ALL APPLICANTS, WHETHER NEW CONSTRUCTION, EXISTING FACILITY, OR RENEWAL

Control Equipment covered under this application-Please check all applicable and indicate number of units

PARTICULATE EMISSIONS CONTROL EQUIPMENT

- | | |
|-------------------------------------|----------------------------|
| 1. Cyclone(s) _____ | 5. Venturi Scrubber _____ |
| 2. Water Scrubber <u> x </u> | 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)

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 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

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

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).

FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

1 FACILITY NAME:

Address

for Agency use Only

Kymene Plant

FACILITY NUMBER

Information for Calendar Year

Date

08 / 0 / 0 0 / 0 / 0 / 1 / 0 / 2 / 4

19

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process
% 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
11. Others (specify)

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)

FUEL BURNING EQUIPMENT

[illegible]

Fuel Type

Supplier

[illegible]

11

12

Air Pollution Control Equipment

[illegible]

***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 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. 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 and 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 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.
Collection efficiency. Design and actual collection efficiency if known.

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, ect.)

PAGE 1

Company Name		Address		FOR AGENCY USE
Hercules Incorporated		P. O. Box 1937, Hattiesburg, Miss. 39401		
FACILITY NUMBER		Information for Calendar Year	Date	
08 / 0/0 0 / 0 / 0/ 0/1 0/2 / 4		19 77	7 / 1 / 76	

[illegible]

#Specify Units of Measure Used

Journal of Management Education 33(3)

[illegible]

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

(FOR AGENCY USE ONLY)

12

[illegible]

*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

- 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 Year.
- 4. Operating Schedule for Incinerator. Hours per Day and Days per Year incinerator is in operation.
- 5. Auxiliary Fuel Data.
 - 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.

REFUSE DISPOSAL AND INCINERATION

A

Company Name	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials

C

D

E

Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal ^{1*}

If Waste Disposal is by Incineration, Specify the Following:

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	Type Waste
Pounds / Day	
Tons / Year	
Hours / Day	
Days / Year	

4. Operating Schedule

*1 Disposal Method Codes

- Open Burning
- Landfill (No Burning)
- Incinerator (Complete rest of Form)
- Conical Burner (TeePee)
- Burned in Boiler or Furnance
- Other (Specify)

(AGENCY USE ONLY)

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 _____
 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 Refuse Incineration:
- | | | |
|---------------|-----------------|---------------------|
| Name: | | Basis of Estimates: |
| Particulates | _____ Tons/Year | _____ |
| Sulfur Oxides | _____ " | _____ |

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.

- I. 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 in sufficient 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.

NOTE: The application form, site plan, and equipment must be signed and stamped by an engineer registered in the State of Mississippi.

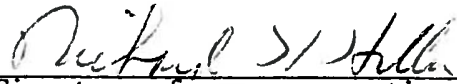
ADDITIONAL INFORMATION

- | | |
|--|---|
| I. Two copies of construction site plot plan. | III. Two copies of a detailed explanation of the process and control equipment. |
| II. Two copies of detailed equipment drawings. | IV. Two copies of a flow diagram 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
registered in Mississippi



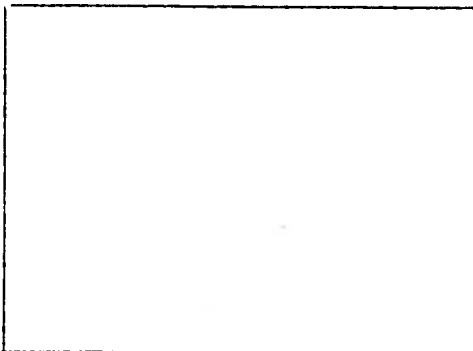
Signature of person accepting
responsibility for this application.

Fred K. Lane 3355

Typed name and Mississippi
Registration Number

R. H. Heller

Typed Name



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 Group – 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 condensers (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**

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



Glen Wood, Jr.

EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

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WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES .

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 023

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 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 DO NOT HESITATE TO CON-
TACT US.

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Joarrest

Air & Water Pollution Control Commission

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09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0300

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 022

GENTLEMEN

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VERY TRULY YOURS,

MIKE KENNEDY

DIV. OF AIR POLLUTION CONTROL

DWIGHT, FIL

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

By: 

Charles S. Jordan
Senior Chemical Engineer

CSJ:p

Attachment

RECEIVED

JAN 27 1976

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

Experimental Equipment Name	Duration of tests (Days)	Raw Materials Used	Type Products Produced	Assessment of Emissions		
				Potential Emissions	Control Equipment	Type Vent
Kettle						
(A)	47	Stearic Acid Ethylene Diamine Silicone Oil	Amide	Water of Reaction	Total Condenser	No-flow
(B)	2	Resin Mineral Spirits	Resin	Mineral Spirits	Total Condenser	No-flow
(C)	5	Resins	Resin Blend	Nil	Total Condenser	No-flow
(D)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
Reactors						
(A)	76	Resin Para-Menthane Hydrogen	Desulfurized- Hydrogenated Resin	Hydrogen H ₂ S	Soda Ash Soln. Neutralization	H ₂ Purg
(B)	93	Rosin Hydrogen	Hydrogenated Resin	Hydrogen	None	H ₂ Purg
Still						
(A)	107	Rosin	Distilled Resin	Nil	Barometric Condensers	No-flow
Evaporator						
(A)	17	Resin para-Menthane	Resin	Para-Menthane	Barometric Condensers	No-flow
Melter						
(A)	100	Rosin	Melted Rosin	Nil	None	No-flow

Jonrest

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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09/24/76

CONTACT CHARLES JORDAN
SUBJECT OPERATING PERMIT EXPIRES
DATE 02/06/77

COUNTY NO. 0200
SOURCE NO. 00001
POINT NO. 021

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

copy, file

Forrest Co.

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

July 9, 1976

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

RECEIVED
JUL 10 1976
AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

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
Charles S. Jordan
Senior Chemical Engineer

CSJ:jr

Attachment

Experimental Equipment Name	Duration of tests (Days)	Raw Materials Used	Type Products Produced	Assessment of Emissions		
				Potential Emissions	Control Equipment	Type Vent
Kettle						
(A)	56	Stearic Acid Ethylene Diamine Silicone	Amide	Water of Reaction	Total Condenser	No-flow
(B)	4	Isopropanol Resin	Resin Solution	Isopropanol	Total Condenser	No-flow
(C)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
Reactors						
(A)	15	Resin Para-Menthane Hydrogen	Hydrogenated Resin	Hydrogen	None	H ₂ Purge
(B)	59	Rosin Hydrogen	Hydrogenated Resin	Hydrogen	None	H ₂ Purge
(C)	14	Polymer Hydrogen Isopar H	Hydrogenated Polymer	Hydrogen	None	H ₂ Purge
Still						
(A)	49	Rosin	Distilled Resin	Nil	Barometric Condensers	No-flow
Evaporator						
(A)	14	Resin para-Menthane	Resin	Para-Menthane	Barometric Condensers	No-Flow

Air & Water Pollution Control Commission

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09/24/76

CONTACT CHARLES JORDAN
SUBJECT OPERATING PERMIT EXPIRES
DATE 02/06/77

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 020

GENTLEMEN

A REVIEW OF OUR FILES INDICATES THAT YOUR PERMIT TO OPERATE
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PLEASE NOTE THAT COMMISSION REGULATIONS REQUIRE THAT YOU
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VERY TRULY YOURS.,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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09/24/76

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SUBJECT OPERATING PERMIT EXPIRES
DATE 02/06/77

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 017

GENTLEMEN

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DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 016

GENTLEMEN

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

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DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 015

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/26/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

PRINT NO. 012

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
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TACT US.

VERY TRULY YOURS.

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN
SUBJECT OPERATING PERMIT EXPIRES
DATE 02/06/77

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 011

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 NINETY (90) DAYS PRIOR TO THE EXPIRATION DATE.
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IF YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO CON-
TACT US.

VERY TRULY YOURS.

MIKE JENNIFER
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

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

May 14, 1976

*File Hercules Inc
No 5 Package Boiler - #11
Jonest Co.*

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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.

File

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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

M E M O R A N D U M

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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. This 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

Air & Water Pollution Control Commission

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GEOLOGICAL SURVEY
W. H. MOORE

May 14, 1976

*File - Hercules Inc.
Woodwaste Boilers 344 (616)
Forest Co*

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

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.

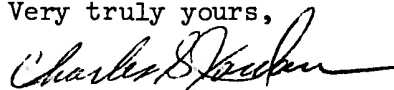
(3) As requested in your March 29, 1976, letter, after the selection of the ideal size sampling nozzle, simultaneous breech testing will be run using the ideal size nozzle and then the next largest nozzle. A total of six tests will be run using alternating size nozzles. Three simultaneous tests will 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

CJ:p

004
010

RECEIVED

APR 27 1976

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

FILE
FORGET C

Encl 010

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



FILE NO.: A/P

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.

Darryl Byrd
Darryl Byrd

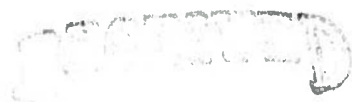
DB:mm1

cc: Mr. Tommy Gingles

cc: Ms. Judy Linskey

*WBA
recorded
✓*

*9-14-76
S. Royals*



SEP 14 1976

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

MISSISSIPPI AIR & WATER POLLUTION CONTROL COMMISSION
VISIBLE EMISSIONS EVALUATION RECORD
 DATE: _____

PLANT NAME: _____

V.E. OBSERVER: _____

ADDRESS: _____

V.E. CERTIFICATION NO.: _____

CITY: _____

CERTIFICATION EXPIRATION: _____

EMISSION POINT: _____

RECEIVED BY: _____

	INITIAL	FINAL
DISTANCE TO DISCHARGE	_____	_____
DIRECTION TO DISCHARGE	_____	_____
HEIGHT OF OBSERVATION POINT	_____	_____
HEIGHT OF DISCHARGE	_____	_____
PLUME COLOR	_____	_____
PLUME BACKGROUND	_____	_____
WATER VAPOR IN PLUME?	_____	_____
WIND DIRECTION	_____	_____
WIND SPEED	_____	_____
AMBIENT TEMPERATURE	_____	_____
DISCHARGE TEMPERATURE	_____	_____
SKY CONDITIONS	_____	_____

SET NO.	TIME		OPACITY	
	START	END	SUM	AVERAGE
1	2	3		
2	3	3		
3	3	3		

MIN.*	SECONDS*			
	0	15	30	45
0				
1				
2				
3				
4				
5				
0				
1				
2				
3				
4				
5				
0				
1				
2				
3				
4				
5				

DIAGRAM OF OBSERVER/DISCHARGE POINT

REMARKS: _____

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

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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Glen Wood, Jr.

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W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 008

GENTLEMEN

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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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS.

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI



Glen Wood, Jr.

EXECUTIVE DIRECTOR

POST OFFICE BOX 827

TELEPHONE 354-6783

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W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00001

DATE 02/06/77

POINT NO. 006

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Lowest Co.

005

February 9, 1976

Mr. Charles S. Jordan
Hercules, Incorporated
West 7th Street
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:er

WAYNE

FILE
DELAWARE
FORREST

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 11, 1976

005
RECEIVED

FEB 12 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 S. Jordan*
Charles Jordan

CJ:p

Cal - please respond



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 4, 1976

FILE
~~JONES Co.~~
Jonest
005

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

By: 
Charles S. Jordan

CSJ:p

RECEIVED

FEB 5 1976

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

April 9, 1976

FILE 005
FURREST CO.

000 Delnau
RECEIVED

APR 14 1976

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

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

Dear Cal:

The following methods were used with our computer model for a 2" I.D. flare tower burning 17.6 grams/second of H₂S from an 89% H₂S 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

$$Q_h = 0.75 \left[\left(\frac{17.6 \text{ g.}}{\text{Sec.}} \times \frac{136,701 \text{ cal.}}{34 \text{ g.}} \right) + \left(\frac{950 \text{ cu. ft.}}{\text{hr.}} \times \frac{1,000 \text{ Btu}}{\text{cu.ft.}} \times \frac{.07 \text{ cal/sec.}}{\text{Btu/hr.}} \right) \right]$$

$Q_h = 102,947 \text{ cal./sec.}$

For stack emission volume flow rate

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

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

1144°K = 371°C = 1000°F
295°K = 22°C = 72°F
849°K = 576°C = 1067°F

For flare tip exit velocity

$$\left(\frac{17.6 \text{ g.}}{\text{sec.}} \times \frac{.0224 \text{ M}^3}{34 \text{ g.}} \times \frac{1}{.89} \right) \times \left(\frac{4}{(.0508)^2 \times 3.1416} \right) = 6.41 \text{ M/sec.}$$

For equivalent diameter

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

April 9, 1976

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:

<u>Sampling time</u>	<u>Ratio</u>
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 $781 \times \frac{.51}{.61} = 653 \text{ g.}^{-6}/\text{M}^3$

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

It should be noted that the 11% flare gas other than H₂S (primarily Benzene) was omitted in our heat emission calculation and would actually increase the volume flow to 1.72 M³/sec. This would have actually lowered the calculated SO₂ concentrations.

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

Yours very truly,

HERCULES INCORPORATED

By:



Charles S. Jordan
Senior Chemical Engineer

CSJ:p

Forrest
Em Pt 004

FILE COPY

November 1, 1976

Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi 39401

Gentlemen:

Re: 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

Air & Water Pollution Control Commission

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

JAMES W. CARRAWAY, CHAIRMAN
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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

09/24/76

CONTACT CHARLES JORDAN
SUBJECT OPERATING PERMIT EXPIRES
DATE 02/06/77

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 004

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 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 DO NOT HESITATE TO CONTACT US.

VERY TRULY YOURS,

[Signature]
MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

COMMISSIONERS

RAY TRIBBLE
CHAIRMAN
MONEY

JAMES W. CARRAWAY
VICE CHAIRMAN
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LAMBERT

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GAME & FISH COMMISSION
BARRY O. FREEMAN

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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 HERCULES INC.
UNION IRONWORKS BOILERS #64 file
Forest*

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: 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.

Air & Water Pollution Control Commission

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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PAUL BURT

GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN

COUNTY NO. 0800

SUBJECT OPERATING PERMIT EXPIRES

SOURCE NO. 00601

DATE 02/06/77

POINT NO. 003

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
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APPLICATION FORMS MAY BE OBTAINED BY WRITTEN REQUEST TO THE
ADDRESS SHOWN ABOVE.

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

VERY TRULY YOURS,

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

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JAMES W. CARRAWAY, CHAIRMAN
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GEOLOGICAL SURVEY
W. H. MOORE

HERCULES INC OF HATT
WEST 7TH STREET
HATTIESBURG MS 39401

09/24/76

CONTACT CHARLES JORDAN
SUBJECT OPERATING PERMIT EXPIRES
DATE 02/06/77

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 001

GENTLEMEN

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

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

VERY TRULY YOURS.

MIKE KENNEDY
DIV. OF AIR POLLUTION CONTROL

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	035	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** 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 COLUMN 5-TALL OIL PLANT

TELEPHONE 601 5846411
 CONTACT CHARLES JORDAN
 ENGINEER MIKE KENNEDY

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION TYPE (18)	CARD TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	034	02	7	16	18-MONTH INSPECTION

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

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 (DO NOT WRITE IN THIS SPACE)

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

***** FOR ENGINEERING USE ONLY *****

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XX	7						N

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

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8	1	-----	N
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8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	033	02	7	16	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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1 SOUTH-INSPECTION TO BE MADE BY MAIN
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8	1	-----	N
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8	3	-----	N
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8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	032	03	7	16	18-MONTH INSPECTION

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

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

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

***** FOR ENGINEERING USE ONLY *****

NEXT-ACTION NUMBER (16-17)	CARD TYPE (18)	NEXT-ACTION DATE (MO/DAY/YR) (60-65)	STAFF MEMBER (66-68)	NEXT-ACTION TYPE (73-74)	HRS TO COMPLETE (75-76)	LETTER CODE (77-78)	UPDATE CODE (80)
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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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	031	02	7	16	18-MONTH INSPECTION

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

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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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED	08/06/75	TELEPHONE	601 5846411
COMPANY NAME	HERCULES INC OF HATT	CONTACT	CHARLES JORDAN
ADDRESS	WEST 7TH STREET	ENGINEER	MIKE KENNEDY
CITY-STATE-ZIP	HATTIESBURG MS 39401		
DESCRIPTION	PARA-MENTHANE UNIT		<i>Burker</i>

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION TYPE (18)	CARD TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	030	02	7	16	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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C

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- 2 OFFICE ENGINEER

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XX	7						N

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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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
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8	3	-----	N
8	4	-----	N
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8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION TYPE (18)	CARD TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	028	02	7	16	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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NEXT-ACTION NUMBER (16-17)	CARD TYPE (18)	NEXT-ACTION DATE (MO/DAY/YR) (60-65)	STAFF MEMBER (66-68)	NEXT-ACTION TYPE (73-74)	HRS TO COMPLETE (75-76)	LETTER CODE (77-78)	UPDATE CODE (80)
XX	7						N

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED	08/06/75	TELEPHONE	601 5846411
COMPANY NAME	HERCULES INC OF HATT	CONTACT	CHARLES JORDAN
ADDRESS	WEST 7TH STREET	ENGINEER	MIKE KENNEDY
CITY-STATE-ZIP	HATTIESBURG MS 39401		
DESCRIPTION	RESIN 1977 PLANT		

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	027	02	7	16	18-MONTH INSPECTION

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	026	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	025	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1		N
8	2		N
8	3		N
8	4		N
8	5		N
8	6		N
8	7		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 REPORTING: Judy Linskey

General report is in entire source file.

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
Division of Air Pollution Control

EPH:jrbw
Enclosure

State of Mississippi
Air and Water Pollution Control Commission

PERMIT

To Construct Air Emissions Equipment

This Certifies That

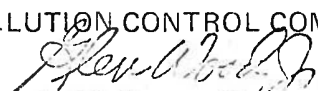
Hercules
West 7th Street
Hattiesburg, Ms.

has been granted permission to construct Air Emissions Equipment in connection with the
operation of the plant or process Kymene Plant Methanol Storage Tanks

Construction of such equipment 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.

Issued this 29th day of September, 19 75.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 29th day of September, 19 76.

Facility No. 0800-00001-024

Nº 1091

Sept 29, 1975

Heruler Ave.

Forrest

110

0800

00001

024

Process Description:

Methanol ($C_{1}H_{3}OH$) is a by product of a chemical reaction. The methanol is to be stored in a 10,000 gallon tank.

Operating Schedule:

24 hr/day 7 day/wk 52 wk/yr.

Process Weight:

Methyl Ester	590# / hr
Base	372# / hr
Total	962# / hr

Allowable Emission:

No regulation governing hydrocarbon emissions.

Description of Proposed Construction:

Piping to conduct methanol vapor to a condenser then to a storage tank with check valve (10,000 gal capacity)

Emission Estimation :

Pilot plant data indicates 99% efficiency for the condenser in recovering methanol vapor. This gives 3 #/hr vapor emission rate.

Considering the physical nature of the system to be constructed, I believe 3 #/hr methanol vapor discharge to be fairly accurate; Since there are no regulations governing hydrocarbon emissions and the methanol vapors in such quantities would not contribute to an air pollution problem, I recommend issuance of a construction permit.

JTB

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. NUM (13-15)	PT. NUM (16-17)	ACTION NUM (18)	CARD TYPE (52-53)	ACTION TYPE (54-59)	ACTION DESCRIPTION
110	0800	00001	024	02	7	16		18-MONTH INSPECTION

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

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

- 1 SOUTH-INSPECTION TO BE MADE BY MAIN
- 2 OFFICE ENGINEER-CHECK FUGITIVE DUST
- 3 FROM ADIPIC ACID HANDLING

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

EMISSIONS SUMMARY FOR PERMIT DETERMINATION

KEY DATA 1110 108000 10100011 1024
 Agency County Source EmPt

PLAN REVIEW ENGINEER Burke

FACILITY NAME Hercules Inc.

ADDRESS P.O. Drawer 1937
Hathesburg Ms 39401

SITE LOCATION West 7th St.

TYPE PLANT OR PROCESS Chemical

NO. EMISSION POINTS 1

TYPE EMISSIONS: () PM () SO₂ () H₂S (☒) HC
 () CO () Other (specify) _____

ALLOWABLE EMISSIONS: N/A

APPLICABLE REGULATION(S): none

HOW EMISSIONS DETERMINED: () Source Test () Calculation
 (☒) Estimate

WHO DETERMINED EMISSIONS: () MAWPCC Engineer (Attach Calculations)
 (☒) Facility making application
 () Outside Consultant

AIR QUALITY IMPACT:

(To be completed by AQM Engineer) AQM Engineer _____

If total emissions are greater than 0.25 tons/day, what are:

Max. ground level concentration? _____

At what distance? _____

Percent contribution to total ambient levels
 caused by this source _____

If new or modified source, what is percent change in
 emissions inventory caused by this source:

County _____ AQCR: _____ State: _____

COMMENTS: _____

Air & Water Pollution Control Commission

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

Jones

07/18/75

CONTACT CHARLES JORDAN
SUBJECT PERMIT APPLICATION RECEIVED
DATE 10/10/75

COUNTY NO. 0800
SOURCE NO. 00001
POINT NO. 024

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 B. Jones
DWIGHT B. JONES
DIV. OF AIR POLLUTION CONTROL

Stubberfield

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

RECEIVED
JUL 12 1975
AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

Attention: Mr. Jerry Stubberfield

Gentlemen:

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

Very truly yours,

C. R. LeCroy
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

This space for Office Use Only.

INSTRUCTIONS

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 matter — give the name of an individual who is usually at the facility who is responsible for knowing about pollution matters.
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.

1. Name of Facility - factory, mill, plant, etc. - Hercules Incorporated		Telephone 584-6411
2. Location of Facility West 7th Street Latitude 31° 20' 28" N Longitude 89° 18' 20" W	Town Hattiesburg	County Forrest
3. Mailing address of facility P. O. Drawer 1937	City Hattiesburg	Zip 39401
4. Name of Owner Hercules Incorporated	Telephone 584-6411	
5. Mailing address of owner P. O. Drawer 1937	City Hattiesburg	Zip 39401
6. In-plant person to be contacted on pollution matters F. H. Gardner	Title Chemical Supt.	
7. Representing engineer F. K. Lane	Telephone 584-6411	
8. Mailing address of engineer P. O. Drawer 1937	City Hattiesburg	State Zip 39401
9. Correspondence to be sent to 1 4 <u>6</u> 7 above. (circle one)		
10. Please describe briefly the type of plant to be built or type of plant to be modified and the modification to be made. In an existing plant, an acid and a base react yielding a chemical product, with water as a by-product. 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 as a by-product.		

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

Particulate emissions control equipment

1. Cyclone(s) _____
2. Water Scrubber _____
3. Baghouse _____
4. Electrostatic Precipitator _____
5. Venturi Scrubber _____
6. Cyclonic Baghouse _____
7. Cyclonic Scrubber _____
8. Other _____

Gaseous emissions control equipment

1. Water scrubber _____
2. Activated carbon bed _____
3. Other Methanol Condenser (surface type)

Waste disposal systems

1. Solid waste incinerator _____
2. Liquid waste incinerator _____
3. Wood or other waste fuel recovery boiler _____
4. Gaseous waste flare _____
5. Liquid waste flare _____
6. Other _____

Pneumatic conveying system _____

Other (please describe)

Present status of construction — check all applicable

New Installation_____

Existing equipment to be altered X

Existing equipment to be moved to new location _____

Construction or installation not yet started X

Estimated starting date 2/76

Estimated completion date 7/77

Operating Schedule

Normal	Hours per day	Days per week	Weeks per year
	24	7	52
Seasonal or peak operation period	Hours per day	Days per week	Weeks per year
	24	7	52

Permit status - list all current permits - From the Air Division or Water Division of the Mississippi Air and Water Pollution Control Commission held by this facility.

Air or Water Division	Type of Permit	Permit Number	Expiration Date
<u> Air </u>	<u> Operate </u>	<u> 0800-00001-001 thru 008* </u>	<u> 2/6/77 </u>
<u> Air </u>	<u> Tolerance </u>	<u> 009 thru 010 </u>	<u> 7/31/75 </u>
<u> Air </u>	<u> Operate </u>	<u> 011 thru 035* </u>	<u> 2/6/77 </u>
<u> Water </u>	<u> NPDES </u>	<u> MS0001830 </u>	<u> 9/30/79 </u>
_____	_____	_____	_____

*Numbers 007 and 013 are not included in these permits.

Has application been made with the Water Division of the Mississippi Air and Water Pollution Control Commission for approval to construct this particular facility? No

—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 weights of the individual processes in the plant. Process input weight is defined as the total 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.

Name of Process			Input Material	Input Weight (lbs. per hr.)
P-567 Production	Methyl Ester	Base	590	372
			Total Plant Input Weight	
			962	

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 buildings 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 in sufficient 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.
- NOTE: The application form, site plan, and equipment drawings must be signed and stamped by an engineer registered in the State of Mississippi.

ADDITIONAL INFORMATION

I. Two copies of construction site plot plan.

II. Two copies of detailed equipment drawings.

IV. Two copies of a flow diagram of the process or operation showing control devices.

III. Two copies of a detailed explanation of the process and control equipment.

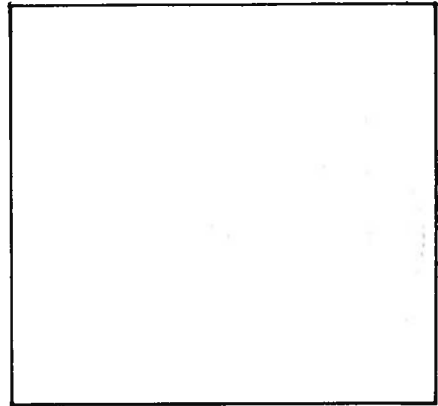
Signature of engineer registered in Mississippi

F. K. Lane

F. K. Lane, Reg. No. 3355

Typed name and Mississippi

registration number



Seal of Engineer registered in Mississippi

Typed name

F. H. Gardner, Jr.

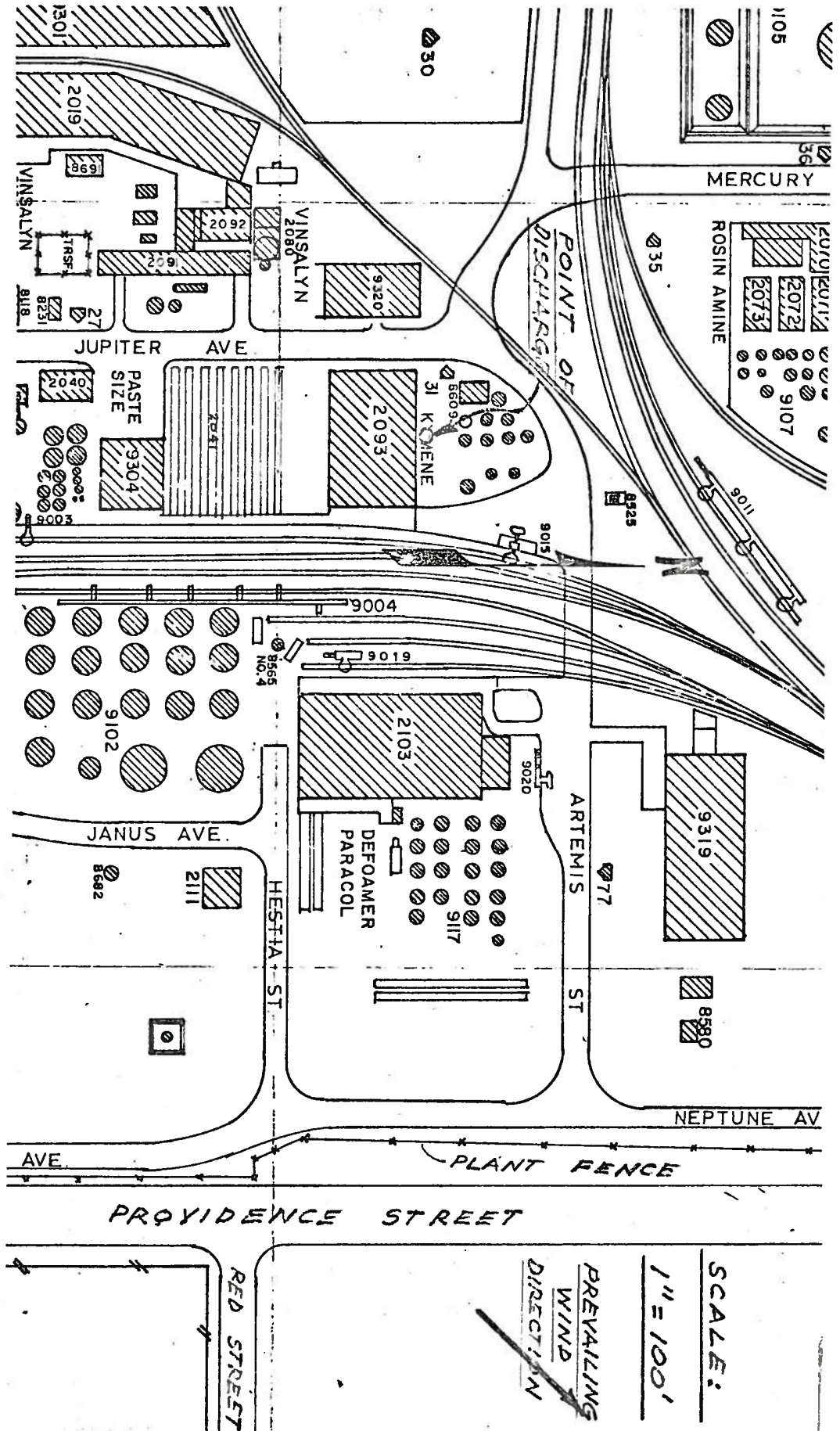
Signature of person accepting responsibility for this application

Frank H. Gardner

SIGNATURES: 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.

CLOSEST PROPERTY LINE LOCATION
FROM PROPOSED POINT OF DISCHARGE:

<u>HEIGHTS OF BUILDINGS:</u>						
2093	35'	2019	25'	9319	20'	
9320	20'	2091-2	35'	2111	20'	
2070-3	35'	2080	40'	9102	40'	
9304	30'	2103	35'	8231	15'	



SCALE: 1" = 100'
PREVAILING WIND DIRECTION

DETAILED EQUIPMENT DRAWINGS

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

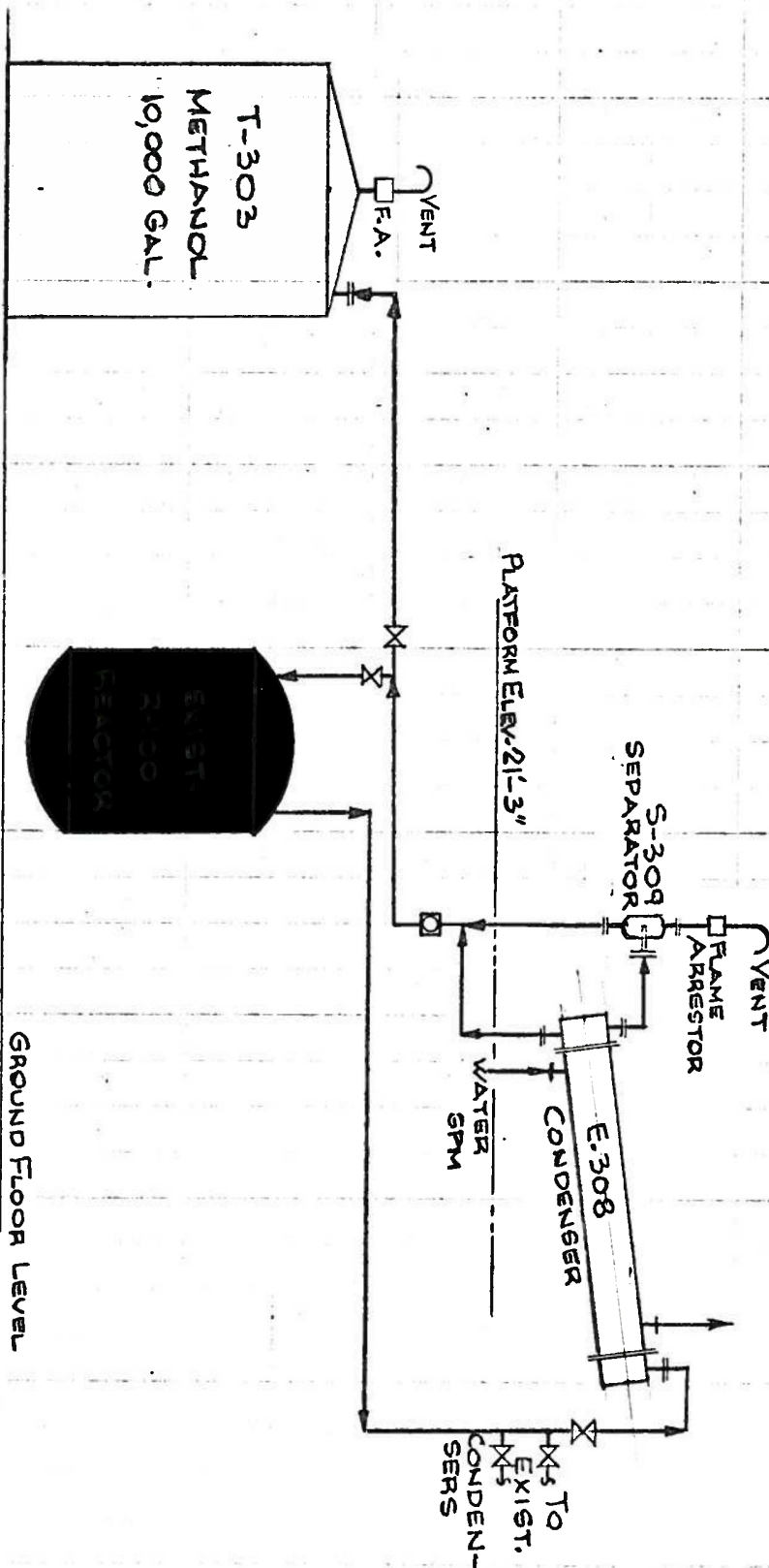
A scale drawing of the proposed equipment arrangement is attached.

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

11-6

BY YUC DATE 6/3/75 SUBJECT EQUIPMENT ARRANGEMENT
 CHKD. BY _____ DATE _____

SHEET NO. 1 OF 1
 JOB NO. _____



VERTICAL SCALE: 1/8"=1'-0"

GROUND FLOOR LEVEL

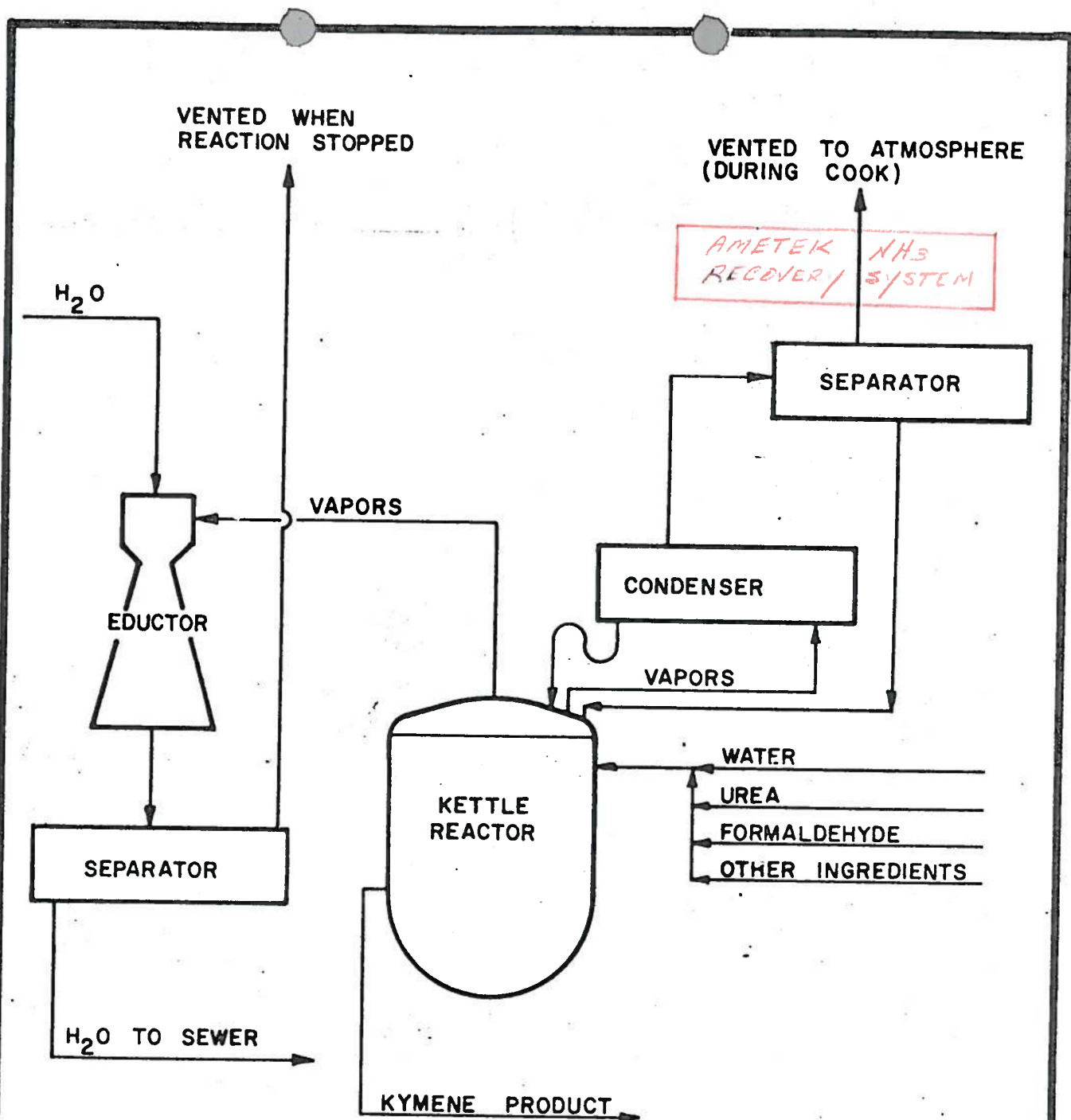
EXIST.
CONDENSERS

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.

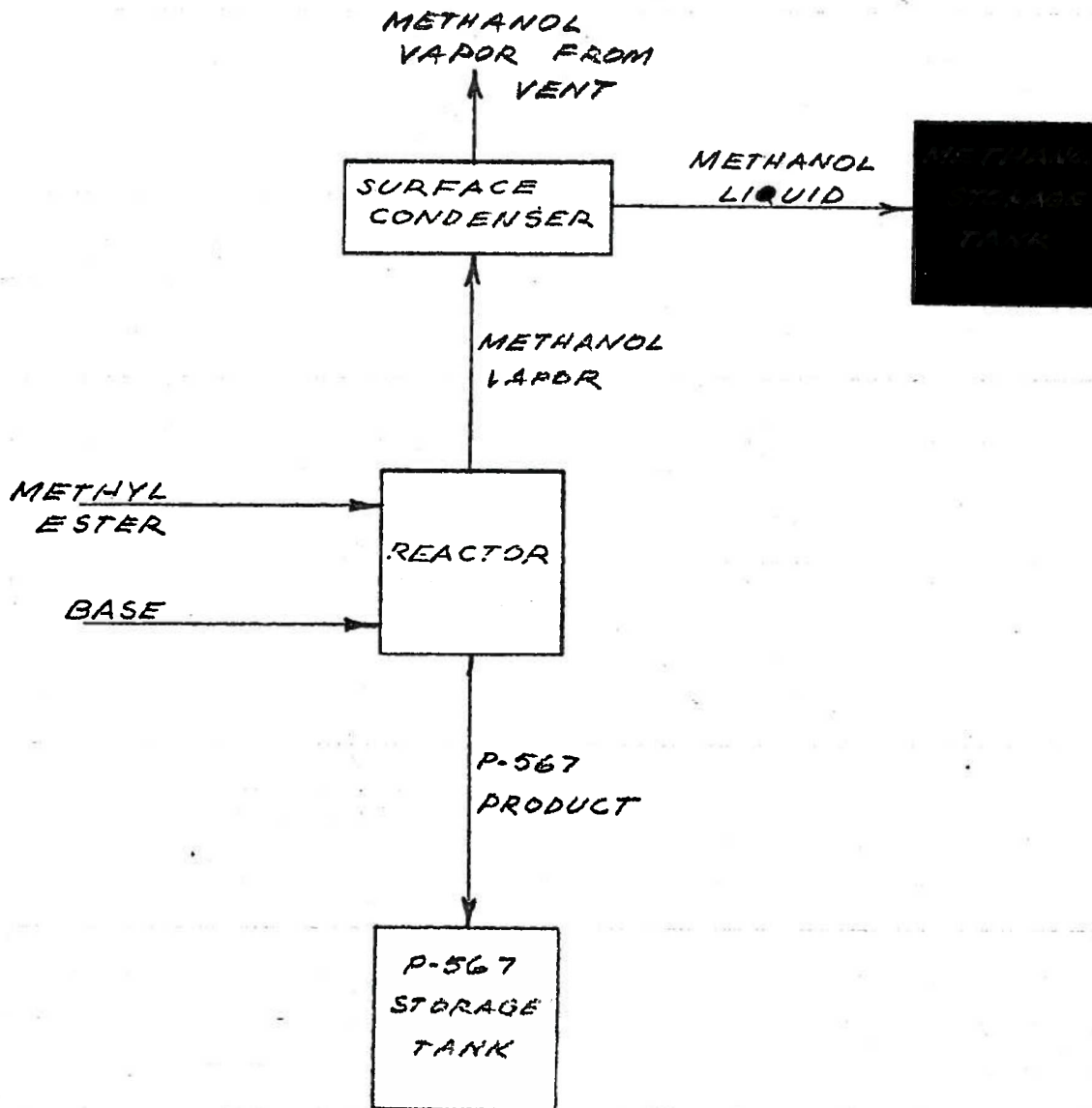


HERCULES INCORPORATED
HATTIESBURG, MISSISSIPPI
KYMENE PROCESS

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

SEPTEMBER, 1973

DRAWING NO 24



*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	023	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

DATE SCHEDULED	08/06/75	TELEPHONE	601 5846411
COMPANY NAME	HERCULES INC OF HATT	CONTACT	CHARLES JORDAN
ADDRESS	WEST 7TH STREET	ENGINEER	MIKE KENNEDY
CITY-STATE-ZIP	HATTIESBURG MS 39401		
DESCRIPTION	RESIN 731 UNIT		

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

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

Handwritten: DWIS + F-1 Filt

Handwritten: Jan Co.

HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

July 14, 1975

RECEIVED

JUL 14 1975

**AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI**

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:

Handwritten signature: Charles S. Jordan

Charles S. Jordan
Senior Chemical Engineer

CSJ:p

Attachment

Experimental Equipment Name	Duration of tests (Days)	Raw Materials Used	Type Products Produced	Aassessment of Emissions		
				Potential Emissions	Control Equipment	Type Vent
Kettle						
(A)	50	Stearic Acid Ethylene Diamine Silicone Oil	Amide	Water of Reaction	Total Condenser	No-flow
(B)	5	Resin Mineral Spirits	Resin	Mineral Spirits	Total Condenser	No-flow
(C)	2	Resins	Resin Blend	Nil	Total Condenser	No-flow
(D)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
(E)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
Reactors						
(A)	123	Resin Para-Menthane Hydrogen	Desulfurized-Hydrogenated Resin	Hydrogen H ₂ S	Soda Ash Soln. Neutralization	H ₂ Purge
(B)	48	Rosin Hydrogen	Hydrogenated Resin	Hydrogen	None	H ₂ Purge
Still						
(A)	9	Rosin	Distilled Resin	Nil	Barometric Condensers	No-flow
Evaporator						
(A)		Resin para-Menthane	Resin	para-Menthane	Barometric Condensers	No-flow

~~Copy~~
File

Forrest
co


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

RECEIVED

AIR & WATER POLLUTION
CONTROL COMMISSION
JAN 15 1975

Experimental Equipment Name	Duration of tests (Days)	Raw Materials Used	Type Products Produced	Assessment of Emissions		
				Potential Emissions	Control Equipment	Type Vent
Kettle						
(A)	61	Stearic Acid Ethylene Diamine Silicone Oil	Amide	Water of Reaction	Total Condenser	No-flow
(B)	19	Resin Mineral Spirits	Resin	Mineral Spirits	Total Condenser	No-flow
(C)	2	Resins	Resin Blend	Nil	Total Condenser	No-flow
(D)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
(E)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
Reactors						
(A)	83	Resin para-Menthane Hydrogen	Desulfurized- Hydrogenated Resin	Hydrogen H ₂ S	Soda Ash Soln. Neutralization	H ₂ Purge
(B)	38	Rosin Hydrogen	Hydrogenated Resin	Hydrogen	None	H ₂ Pyрге
Still						
(A)	67	Rosin	Distilled Resin	Nil	Barometric Condensers	No-flow

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	021	03	7	16	18-MONTH INSPECTION

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

C

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

- 1 SOUTH-INSPECTION TO BE MADE BY A
- 2 MAIN OFFICE ENGINEER-CHECK FILE FOR
- 3 PAST REPORTS ON EXPERIMENTAL WORK

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

*** INSPECTION ACTION INFORMATION ***

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

AGCY CODE (1-3)	COUNTY CODE (4-7)	SOURCE NUM (8-12)	EM. PT. NUM (13-15)	ACTION NUM (16-17)	CARD TYPE (18)	ACTION TYPE (52-53)	ACTION DESCRIPTION
110	0800	00001	020	02	7	16	18-MONTH INSPECTION

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

C

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

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

***** FOR ENGINEERING USE ONLY *****

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

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

CARD TYPE (18)	LINE NUMBER (19)	COMMENTS (20-54)	UPDATE CODE (80)
8	1	-----	N
8	2	-----	N
8	3	-----	N
8	4	-----	N
8	5	-----	N
8	6	-----	N
8	7	-----	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 REPORTING: Judy Linskey

General report is in entire source file.

WBA

**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 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.

Issued this 6th day of February, 19 74.

AIR AND WATER POLLUTION CONTROL COMMISSION

Glen Wood Jr.
Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-020

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: _____

#20 H_e Plant

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing ☐ Office ☐ Warehouse

☐ Retail or Wholesale Store ☐ Hotel or Motel ☐ Residential or Apts.

☐ School or Church ☐ Hospital or Lab ☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

Date

24
7
52

19 71

7

6

5

4

3

Reference
Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process
Most Usage
% Space heat

1

CRACKING FURNACE

21.0

6

5 (Process Heating)

100

1* BURNER CODES

1. Cyclone furnace
2. Pulverized coal
3. Spreader Stoker
4. Hand fired
5. Other stoker (specify)

2* USAGE CODES

6. Multiple port gas
7. Forced draft gas
8. Atomizing Oil (Stove or Air)
9. Atomizing Oil (Mechanical)
10. Rotary Cup Oil
11. Others (specify)
1. Boiler, Steam
2. Boiler, Other (specify)
3. Air Heating for Space Heating
4. Air Heating for Process Usage
5. Others (specify)

(FOR AGENCY USE ONLY)	
-----------------------	--

***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.)

PAGE 1

Company Name	Address	
Operating Schedule	Information for Calendar Year	Date
24 Hours / Days 365 Days / Year	19 71	

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

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

12

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*	
None					

If Waste Disposal is by Incineration, Specify the Following:

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	Type Waste
Pounds / Day	
Tons / Year	
Hours / Day	
Days / Year	

4. Operating Schedule

*1 Disposal Method Codes

- | | |
|--|---------------------------------|
| 1. Open Burning | 5. Burned in Boiler or Furnance |
| 2. Landfill (No Burning) | 6. Other (Specify) |
| 3. Incinerator (Complete rest of Form) | |
| 4. Conical Burner (TeePee) | |

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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 *P*

This Space For Use By Approving Agency *✓*

Date Received: _____

Facility No.: _____

AQCR: _____

#27 from 1900 - 1902



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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

19 72

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
1000 BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process
Most Usage
% Space heat

1
Foster Wheeler Dow Boiler # 637

5.0

6

2 (Downstream)

100

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)

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)

(FOR AGENCY USE ONLY)

[illegible]

***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.)

PAGE 1

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

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

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

12

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)			Method of Disposal
NONE					1*

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

- Open Burning
- Landfill (No Burning)
- Incinerator (Complete rest of Form)
- Conical Burner (TeePee)
- Burned in Boiler or Furnance
- Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group – 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 condensers (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

WBA

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, 1974.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 1977.

Facility No. 0800-00001-026

MPC FORM

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

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

Page 1

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)

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)

Supplier

Fuel Type

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)

***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.)

PAGE 1

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

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

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

12

***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 Data.
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		Information for Year		(Agency Use Only)	
		Address		Date			

B		C		D	E
Description of Waste Materials		Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	
Type (Describe)				1*	
None					

If Waste Disposal is by Incineration, Specify the Following:

1. Type of Incinerator:
- single chamber ☐
 - multiple Chamber ☐
 - Modified (describe) ☐
 - Other (describe) ☐
- Rotary ☐ Flue Fed ☐

2. Manufacturer's Name:

Model Number	_____	Type Waste	_____
Rated Capacity	_____	Pounds / Hour	_____
3. Quantity Burned:	_____	Pounds / Day	_____
	_____	Tons / Year	_____
4. Operating Schedule	_____	Hours / Day	_____
	_____	Days / Year	_____

*1 Disposal Method Codes

- 1. Open Burning
- 2. Landfill (No Burning)
- 3. Incinerator (Complete rest of Form)
- 4. Conical Burner (TeePee)
- 5. Burned in Boiler or Furnance
- 6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBA

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 Defoamer Plant

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

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. 0800-00001-025



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: _____

1125 50000



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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

19 72

INTERMITTENT

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
1000 BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process
% Space heat

1 DRYER FURNACE

0.2

6

5 (Process/Space)

100

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)

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)

FUEL SUPPLIERS:

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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
NONE				

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBA

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 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.

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. 0800-00001-024



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: _____

2nd Hypothesis



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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.

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

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

19

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

NONE

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process
Most Usage
% 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)

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)

(FOR AGENCY USE ONLY)

Supplier**FUEL SUPPLIERS:**

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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

A		Company Name		Information for Year		(Agency Use Only)	
		Address		Date			

B		C		D	E
Description of Waste Materials		Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	
Type (Describe)				1*	
NONE					

If Waste Disposal is by Incineration, Specify the Following:

1. Type of Incinerator:
- ☐ single chamber ☐ Rotary
☐ multiple Chamber ☐ Flue Fed
☐ Modified (describe) ☐
☐ Other (describe) ☐

2. Manufacturer's Name:

Model Number _____
 Rated Capacity _____
 3. Quantity Burned: _____ Pounds / Hour _____ Type Waste
 _____ Pounds / Day
 _____ Tons / Year
 _____ Hours / Day
 _____ Days / Year
 4. Operating Schedule

*1 Disposal Method Codes

- | | |
|--|--------------------------------|
| 1. Open Burning | 5. Burned in Boiler or Furnace |
| 2. Landfill (No Burning) | 6. Other (Specify) |
| 3. Incinerator (Complete rest of Form) | |
| 4. Conical Burner (TeePee) | |

(AGENCY USE ONLY)

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

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 Refuse 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 Group — 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

MBA

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 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 day of February, 1974.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 1977.

Facility No. 0800-00001-023

MPC FORM

ADDITIONAL CONDITION IS ATTACHED

682



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.



pt 23

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: _____



1. The first part of the document is a list of names and addresses. The names are written in a cursive script, and the addresses are written in a more formal, printed style. The list is organized into two columns, with names on the left and addresses on the right. The names are: John Smith, James Brown, William Jones, and Thomas White. The addresses are: 123 Main Street, New York, NY 10001; 456 Elm Street, New York, NY 10002; 789 Oak Street, New York, NY 10003; and 101 Pine Street, New York, NY 10004.

2. The second part of the document is a list of names and addresses. The names are written in a cursive script, and the addresses are written in a more formal, printed style. The list is organized into two columns, with names on the left and addresses on the right. The names are: John Smith, James Brown, William Jones, and Thomas White. The addresses are: 123 Main Street, New York, NY 10001; 456 Elm Street, New York, NY 10002; 789 Oak Street, New York, NY 10003; and 101 Pine Street, New York, NY 10004.

3. The third part of the document is a list of names and addresses. The names are written in a cursive script, and the addresses are written in a more formal, printed style. The list is organized into two columns, with names on the left and addresses on the right. The names are: John Smith, James Brown, William Jones, and Thomas White. The addresses are: 123 Main Street, New York, NY 10001; 456 Elm Street, New York, NY 10002; 789 Oak Street, New York, NY 10003; and 101 Pine Street, New York, NY 10004.

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
4. Name of Person Completing Form		Title	
5. Person to Contact on Air Pollution Matters			
Title		Telephone	
6. Major Activity			
SIC number — — — —			
<input type="checkbox"/> Manufacturing or Processing	<input type="checkbox"/> Office	<input type="checkbox"/> Warehouse	
<input type="checkbox"/> Retail or Wholesale Store	<input type="checkbox"/> Hotel or Motel	<input type="checkbox"/> Residential or Apts.	
<input type="checkbox"/> School or Church	<input type="checkbox"/> Hospital or Lab	<input type="checkbox"/> 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

Company Name

Address

for Agency use Only

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

19 72

Information for Calendar Year

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10³ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process % Space heat

1

FOSTER - WHEELER Dow Burner 23-638

5.0

6

2 (DOWTHERM)

100

2

MEKEE Dow Burner # 18216

1.6

"

"

"

3

" # 9826

"

"

"

"

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)

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)

[illegible]

Fuel Type

Supplier

[illegible]

***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.)

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

[illegible]

***Specify Units of Measure Used**

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

FORM C PAGE 3

(FOR AGENCY USE ONLY)

11

12

[illegible]

* 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 Data.
 - 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		Information for Year		(Agency Use Only)	
		Address		Date			

B			C		D	E
Description of Waste Materials			Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	1*	
Type (Describe)					Method of Disposal	
None						

If Waste Disposal is by Incineration, Specify the Following:

1. Type of Incinerator:

☐ single chamber ☐ Rotary
☐ multiple Chamber ☐ Flue Fed
☐ Modified (describe) ☐
☐ Other (describe) ☐

2. Manufacturer's Name:

Model Number _____ Type Waste _____

Rated Capacity _____ Pounds / Hour _____

3. Quantity Burned: _____ Pounds / Day _____

_____ Tons / Year _____

4. Operating Schedule _____ Hours / Day _____

_____ Days / Year _____

*1 Disposal Method Codes

- | | |
|--|---------------------------------|
| 1. Open Burning | 5. Burned in Boiler or Furnance |
| 2. Landfill (No Burning) | 6. Other (Specify) |
| 3. Incinerator (Complete rest of Form) | |
| 4. Conical Burner (TeePee) | |

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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**

WBA

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 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 COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-022

MPC FORM

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.: _____

AQCR: _____

#22 Recd 731

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

Page 1

1	Company Name	Address	for Agency use Only

Operating Schedule		Information for Calendar Year	
Hours / Day	24		
Days / Week	7		
Weeks / Year	52		19 72

[illegible]

1* BURNER CODES

1. Cyclone furnace
2. Pulverized coal
3. Spreader Stoker
4. Hand fired
5. Other stoker (specify)

2* USAGE CODES

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)
1. Boiler, Steam
2. Boiler, Other (specify)
3. Air Heating for Space Heating
4. Air Heating for Process Usage
5. Others (specify)

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

Supplier

Fuel Type

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)	
-----------------------	--

***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.)

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)

[illegible]

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

12

[illegible]

*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 Data.
 - 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		Information for Year		(Agency Use Only)	
		Address		Date			

B		C		D	E
Description of Waste Materials		Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal ^{1*}	
Type (Describe)					
NONE					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

Wayne



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

October 16, 1974

Jonest

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

By:

Charles S. Jordan
Charles S. Jordan
Senior Chemical Engineer

CSJ:p
Attachment

RECEIVED

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI

Experimental Equipment Name	Duration of tests (Days)	Raw Materials Used	Type Products Produced	Assessment of Emissions		
				Potential Emissions	Control Equipment	Type Vent
Kettle (A)	36	Stearic Acid Ethylene Diamine Silicone Oil	Amide	Water of Reaction	Total Condenser	No-flow
(B)	3	Resins	Resin Blend	Nil	Total Condenser	No-flow
(C)	2	Resins	Resin Blend	Nil	Total Condenser	No-flow
(D)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
(E)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
(F)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
(G)	1	Resins	Resin Blend	Nil	Total Condenser	No-flow
Reactors (A)	89	Resin para-Menthane Hydrogen	Desulfurized- Hydrogenated Resin	Hydrogen H ₂ S	Soda Ash Soln. Neutralization	H ₂ Purge
(B)	45	Desulfurized Resin para-Menthane Hydrogen	Hydrogenated Resin	Hydrogen	None	Recycle
Still (A)	60	Rosin	Distilled Resin	Nil	Barometric Condensers	No-flow



WMS
8/MS
CTC
For info
the file
JOURN



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,

J. H. Read

Manager

JKR:hj

cc: F. H. Gardner, Jr.
C. S. Jordan
P. B. Holliman
Don Spence

RECEIVED

APR 24 1974

AIR & WATER POLLUTION
CONTROL COMMISSION
STATE OF MISSISSIPPI



Air & Water Pollution Control Commission

STATE OF MISSISSIPPI

FILE

COMMISSIONERS

Ray Tribble
Chairman
Money

James W. Carraway
Vice Chairman
Bassfield

Board of Health
Joe D. Brown

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

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

April 3, 1974

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.

--Continued--



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 letter.

Very truly yours,

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

WBA:sb



9 4 1



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 21, 1974

100-1-21
RECEIVED

FEB 22 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,


Manager

JKR:hj



w6A

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 Pilot Plant

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

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

Issued this 6th day of February, 19 74.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-021

MPC FORM

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.

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

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

Page 1

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)

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) _____

Supplier

Fuel Type

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)	
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[illegible]

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

11

12

[illegible]

*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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*	
None					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBA

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 Foral & Staybelite 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. 0800-00001-019

additional condition is attached

MPC FORM

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.



#19

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: _____

#19

Foran & Soplexite

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

Page 1

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)

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)

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)

[illegible]

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)

[illegible]

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

12

***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 Data.
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	Information for Year	(Agency Use Only)
	Address	Date	

B Description of Waste Materials	C Maximum Amount Per Day (Pounds)	D Amount Per Year (Tons)	E Method of Disposal 1*
Type (Describe)			
<i>None</i>			

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

Type Waste

4. Operating Schedule

*1 Disposal Method Codes

- | | |
|---|---|
| 1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee) | 5. Burned in Boiler or Furnance
6. Other (Specify) |
|---|---|

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBA

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 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.

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. 0800-00001-018

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.



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: _____

#18 Flipping Horse



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
4. Name of Person Completing Form		Title	
5. Person to Contact on Air Pollution Matters			
Title		Telephone	
6. Major Activity			
SIC number — — — —			
<input type="checkbox"/> Manufacturing or Processing	<input type="checkbox"/> Office	<input type="checkbox"/> Warehouse	
<input type="checkbox"/> Retail or Wholesale Store	<input type="checkbox"/> Hotel or Motel	<input type="checkbox"/> Residential or Apts.	
<input type="checkbox"/> School or Church	<input type="checkbox"/> Hospital or Lab	<input type="checkbox"/> 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

1 Company Name

Address

for Agency use Only

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

Date

19

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

None

Rated Capacity
10⁶ BTU/hr

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)

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)

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]**FUEL SUPPLIERS:**

Fuel Type

Supplier

[illegible][illegible]

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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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		Information for Year		(Agency Use Only)	
		Address		Date			

B		C		D	E
Description of Waste Materials		Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	
Type (Describe)				1*	
None					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day

Tons / Year

Hours / Day

Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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

WBA

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 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 February, 19 74.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-017

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

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 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: _____

#11 Malaya Reef 2/10/44

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

Date

19 72

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process % Space heat

1

FOSTER-WHEELER Dow Boiler # 12440

3.3

6

2 (Downstream)

100

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)

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)

Supplier[illegible][illegible]

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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

[illegible]

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

12

***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 Data.
 - 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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)			Method of Disposal ^{1*}
NONE					

If Waste Disposal is by Incineration, Specify the Following:

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 _____ Type Waste
 Pounds / Day _____
 Tons / Year _____
 Hours / Day _____
 Days / Year _____

4. Operating Schedule

*1 Disposal Method Codes

- Open Burning
- Landfill (No Burning)
- Incinerator (Complete rest of Form)
- Conical Burner (TeePee)
- Burned in Boiler or Furnance
- Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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	31 high efficiency cyclones
01 catalytic combustion	32 settling chamber
02 furnace combustion	33 simple filters
03 boiler firebox	34 baghouse (shaking)
04 steam injection flare	35 baghouse (reverse jet)
05 venturi flare	36 dry collector (dynamic)
06 direct flame combustion (afterburner)	
10 Group – ADSORBERS	40 Group – WET COLLECTORS
10 activated carbon – nonregenerative	40 spray chamber – no baffles
11 activated carbon – regenerative	41 spray chamber – with baffles
12 silica gel – nonregenerative	42 wet cyclones – rotoclone
13 silica gel – regenerative	43 wet dynamic precipitator
14 lithium chloride	44 venturi scrubber
15 activated alumina	45 spray tower (not absorption – scrubbers)
16 activated bauxite	46 packed tower (not absorption – scrubbers)
20 Group – ABSORBERS	47 condensers (tube and shell); air
20 sieve plate tower	48 barometric condensor with hot wells
21 bubble-cap tower	50 Group – ELECTRICAL PRECIPITATORS
22 packed tower	50 single stage
	51 double stage
	52 precipitron
Particulate Matter –	60 Group
Liquid Mist Control Equipment	60 Counteractant
30 Group – DRY SEPARATORS AND FILTERS	70 Group – SPECIAL
30 simple cyclones	71 Jet exhausters (air dilution)
	72 Mist eliminators
	80 Group – Other
	Specify

WDA

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 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.

Issued this 6th day of February, 1974.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-016

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

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.



7/16

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.: _____

AQCR: _____

#16 Continuous sheet at 1128

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT

(Except for Refuse Disposal)

Page 1

1		Company Name		Address		for Agency use Only	
Operating Schedule		Information for Calendar Year					
24 7 52		19 72					
2	Reference Number	3	Manufacturer and Model Number	4	Rated Capacity 10 ⁶ BTU/hr	5	Type of Burner Unit (use code 1*)
	1		Foster Wheeler Dow Boiler # 3295		5.0		6
							Usage (use code 2*)
							100
							% Process
							% Space heat
							7

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)

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)

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)	
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[illegible]

***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.)

PAGE 1

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

[illegible]

#Specify Units of Measure Used

FORM C PAGE 3

(FOR AGENCY USE ONLY)

11

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)			Method of Disposal ^{1*}
<i>None</i>					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBA

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 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.

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. 0800-00001-015

ADDITIONAL CONDITION IS ATTACHED
MPC FORM

673



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.: _____

AQCR: _____

1.5 HKA



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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 INFORMATION

1. Owner of Office

Date Submitted

2. Billing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

Page 1

[illegible]

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)

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)

(FOR AGENCY USE ONLY)

[illegible]

Fuel Type

Supplier

[illegible][illegible]

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

A

A			(Agency Use Only)
Company Name	Information for Year		
Address	Date		

B	Description of Waste Materials	C	D	E
	Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	1* Method of Disposal
	None			

1. Type of Incinerator:

- ☐ single chamber
☐ multiple Chamber
☐ Modified (describe)
☐ Other (describe)

- | | |
|-----------------------------------|--------------------------|
| <input type="checkbox"/> Rotary | <input type="checkbox"/> |
| <input type="checkbox"/> Flue Fed | <input type="checkbox"/> |

Model Number

Rated Capacity

3. Quantity Burned:

4. Operating Schedule

Pounds / Hour

Pounds / Day

Tons / Year

Hours / Day

Days / Year

Type Waste

#1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)

(AGENCY USE ONLY)

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

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 Refuse 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 Group — 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 condensers (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

WPA

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 6th day of February, 19 74.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-014

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.: _____

AQCR: _____

1000 1000 1000 1000 1000



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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

Fuel Type

Supplier

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

(FOR AGENCY USE ONLY)

[illegible]

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

12

DUST COLLECTOR
FOR APP #13

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
NONE				

If Waste Disposal is by Incineration, Specify the Following:

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	Type Waste
Pounds / Day	
Tons / Year	
Hours / Day	
Days / Year	

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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.: _____

AQCR: _____

#13 PV on file



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

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

19

7

6

5

4

3

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process % Space heat

NONE

1* BURNER CODES

1. Cyclone furnace
2. Pulverized coal
3. Spreader Stoker
4. Hand fired
5. Other stoker (specify)

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)
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)

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)	
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[illegible]

***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
- 16 activated bauxite

20 Group — 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 condensers (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





WBA

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 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 74.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-012

ADDITIONAL CONDITIONS ARE ATTACHED

MPC FORM

671



WBA

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 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 74.

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



.

.

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.: _____

AQCR: _____

#12 Prob. Blowing 105 1/2 . .

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 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

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

Company Name

Address

for Agency use Only

Operating Schedule

Hours / Day
Days / Week
Weeks / Year

Information for Calendar Year

Date

19 72

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

% Process

% Space heat

SEALAB FURNACE #1

" #2

3.9

3.9

6

"

5 (Process Heating)

"

100

"

1* BURNER CODES

1. Cyclone furnace
2. Pulverized coal
3. Spreader Stoker
4. Hand fired
5. Other stoker (specify)

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)

Supplier

FUEL SUPPLIERS:

Fuel Type

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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

[illegible]

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*	
NONE					

If Waste Disposal is by Incineration, Specify the Following:

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 / Day _____
 Tons / Year _____
 Hours / Day _____
 Days / Year _____

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 — rotocyclone

- 43 wet dynamic precipitator

- 44 venturi scrubber

- 45 spray tower (not absorption — scrubbers)

- 46 packed tower (not absorption — scrubbers)

- 47 condensers (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

WBA

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 Package Boiler No. 5

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. 0800-00001-011



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: _____

#11 - 25 June 1964

)

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

1 Company Name

Address

for Agency use Only

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

19 72

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10⁶ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process % Space heat

1

#5 Packard Boiler at Power House

156

7,9

1

100

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)

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)

Supplier[illegible]

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

***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.)

PAGE 1

Company Name	Address	
Operating Schedule	Information for Calendar Year	Date
_____ Hours / Days _____ Days / Year	19 _____	

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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		Information for Year		(Agency Use Only)
Address		Date		

B

Description of Waste Materials		C		D		E	
Type (Describe)		Maximum Amount Per Day (Pounds)		Amount Per Year (Tons)		Method of Disposal	1*
None							

If Waste Disposal is by Incineration, Specify the Following:

1. Type of Incinerator:

- ☐ single chamber
☐ multiple Chamber
☐ Modified (describe)
☐ Other (describe)

- ☐ Rotary
☐ Flue Bed

2. Manufacturer's Name:

Model Number

Rated Capacity

3. Quantity Burned:

Pounds / Hour
 Pounds / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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

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 Refuse 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 Group — 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 condensers (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

FD-4651



HERCULES INCORPORATED

HATTIESBURG, MISSISSIPPI 39401

February 27, 1974

File

RECEIVED

FEB 28 1974

**AIR & WATER POLLUTION
CONTROL COMMISSION**
STATE OF MISSISSIPPI

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. - "



TABLE I

<u>Item</u>	<u>Submittal of Plans for Control</u>	<u>Equipment Ordered</u>	<u>Equipment Delivery and Construction Start-Up</u>	<u>Construction Completion</u>	<u>Compliance Proven</u>	<u>Remarks</u>
Condensate Collection	4/15/74	2/4/74	5/1/74	9/1/74		Project approved by Hercules - under construction.
Utilities Utilization	4/15/74	2/28/74	10/1/74	10/1/74		Project approved by Hercules - under construction.
Hydrogen Cooling	4/15/74	2/7/74	5/1/74	9/1/74	June-July, 1975	Project approved by Hercules - under construction.
Improved Boiler Firing	4/15/74	5/1/74	9/1/74	5/1/75		Project to be submitted to Hercules management for approval.
Increased Stack Surveillance	4/15/74	7/1/74	12/1/74	3/1/75		Project to be submitted to Hercules management for approval.



State of Mississippi Air and Water Pollution Control Commission

TOLERANCE 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 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, 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.

Issued this 6th day of February, 1974

AIR AND WATER POLLUTION CONTROL COMMISSION

ET

Executive Director

Expires 6th day of May, 1974

Facility No. 0800-00001-010

Nº 2931



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: _____

#10 3rd Street, Boston

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

FUEL SUPPLIERS:

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.)

PAGE 1

Company Name		Address	
Operating Schedule		Information for Calendar Year	Date
_____ Hours / Days _____ Days / Year		19 _____	

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

11

12

[illegible]

***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 Data.
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		Information for Year		(Agency Use Only)	
		Address		Date			

B		C		D		E	
Description of Waste Materials		Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)			1*	
Type (Describe)						Method of Disposal	
ASHES, CLINKERS, Fly Ash		30,312	5,532			2	

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

*1 Disposal Method Codes

- Open Burning
- Landfill (No Burning)
- Incinerator (Complete rest of Form)
- Conical Burner (TeePee)
- Burned in Boiler or Furnance
- Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBA

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 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.

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. 0800-00001-008



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 *Rosario Shook*

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

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number _ _ _ _

- ☐ Manufacturing or Processing
 ☐ Office
 ☐ Warehouse
☐ Retail or Wholesale Store
 ☐ Hotel or Motel
 ☐ Residential or Apts.
☐ School or Church
 ☐ Hospital or Lab
 ☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

Operating Schedule

Information for Calendar Year

Date

Hours / Day
Days / Week
Weeks / Year

19__

2

3

4

5

6

7

Reference
Number

Manufacturer and Model Number

None

Rated Capacity
1000 BTU/hr

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)

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)

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

Supplier

[illegible][illegible]

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

***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.)

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

FORM D REFUSE DISPOSAL AND INCINERATION

A

Company Name	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
None				

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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

(AGENCY USE ONLY)

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 _____

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 Refuse Incineration:

Name: _____

Basis of Estimates: _____

Particulates _____

Tons/Year _____

Sulfur Oxides _____

" _____

TABLE 1
CODE NUMBERS FOR CONTROL DEVICES

Vapor Control Equipment

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20 Group — ABSORBERS

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Particulate Matter —

Liquid Mist Control Equipment

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- 52 precipitron

60 Group

- 60 Counteractant

70 Group — SPECIAL

- 71 Jet exhausters (air dilution)

- 72 Mist eliminators

80 Group — Other

Specify

#7

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: _____

#7 Lining Unit



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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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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).

(Except for Refuse Disposal)

[illegible]

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) _____

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)

Supplier

Fuel Type

FUEL SUPPLIERS:[illegible]

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

***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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials			C	D	E	1*
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal			
<i>None</i>						

If Waste Disposal is by Incineration, Specify the Following:

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 _____ Type Waste

Pounds / Day

Tons / Year

Hours / Day

Days / Year

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

WBR

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 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.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-006
ADDITIONAL CONDITION IS ATTACHED

668



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.



6

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.: _____

AQCR: _____

no 6 Poly Pate



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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

FORM B FUEL BURNING EQUIPMENT (Except for Refuse Disposal)

Page 1

for Agency use Only

Company Name

Address

HERCULES INC

HATTIESBURG

Operating Schedule

Information for Calendar Year

Date

24
7
52

Hours / Day
Days / Week
Weeks / Year

1971

9-20-72

2

3

4

5

6

7

Reference Number

Manufacturer and Model Number

Rated Capacity
10³ BTU/hr

Type of Burner Unit
(use code 1*)

Usage
(use code 2*)

Most Usage
% Process % Space heat

1 Mikee Boilers No. 9058

16

6

2 (Boiler)

100

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)

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)

Supplier**FUEL SUPPLIERS:** Fuel Type[illegible]

(FOR AGENCY USE ONLY)

***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.)

PAGE 1

Company Name	Address	
Operating Schedule	Information for Calendar Year	Date
<u>24</u> Hours / Days <u>365</u> Days / Year	19 <u>71</u>	<u>9-20-71</u>

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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		Information for Year		(Agency Use Only)	
		Address		Date			

B		C		D	E
Description of Waste Materials		Maximum Amount per Year (Tons)		Amount Per Year (Tons)	Method of Disposal 1*
Type (Describe)					
None					

If Waste Disposal is by Incineration, Specify the Following:

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 _____ Type Waste _____
 Pounds / Day _____
 Tons / Year _____
 Hours / Day _____
 Days / Year _____

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____
 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 Refuse 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 Group — 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 condensers (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

WBP

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.

AIR AND WATER POLLUTION CONTROL COMMISSION

Glen Wood, Jr.
Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-005

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

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

APPLICATION FOR PERMIT
TO OPERATE
EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received: _____

Facility No.: _____

AQCR: _____

25. 2010



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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

Title

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number _ _ _ _

☐

Manufacturing or Processing

☐

Office

☐

Warehouse

☐

Retail or Wholesale Store

☐

Hotel or Motel

☐

Residential or Apts.

☐

School or Church

☐

Hospital or Lab

☐

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.

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).

Page 1

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)

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) _____

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)	
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[illegible]

***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.)

PAGE 1

Company Name	Address	Date	
Operating Schedule	Information for Calendar Year		
24 Hours / Days 365 Days / Year	19 71		9-20-71

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

12

[illegible]

***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 Data.
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		Information for Year		(Agency Use Only)	
		Address		Date			

B		C		D	E
Description of Waste Materials				Amount Per Year (Tons)	Method of Disposal 1*
Type (Describe)		If incinerator is used, specify type of incinerator			
None					

If Waste Disposal is by Incineration, Specify the Following:

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 _____ Type Waste _____
 Pounds / Day _____
 Tons / Year _____
 Hours / Day _____
 Days / Year _____

4. Operating Schedule

*1 Disposal Method Codes

- | | |
|--|---------------------------------|
| 1. Open Burning | 5. Burned in Boiler or Furnance |
| 2. Landfill (No Burning) | 6. Other (Specify) |
| 3. Incinerator (Complete rest of Form) | |
| 4. Conical Burner (TeePee) | |

(AGENCY USE ONLY)

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 _____
 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 Refuse 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 Group — 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

WBA

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.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-005

ADDITIONAL CONDITION IS ATTACHED

MPC FORM

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

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

2. Street Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Name

Telephone

6. Major Activity

SIC number _ _ _ _

☐ Manufacturing or Processing ☐ Office ☐ Warehouse

☐ Retail or Wholesale Store ☐ Hotel or Motel ☐ Residential or Apts.

☐ School or Church ☐ Hospital or Lab ☐ 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.

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.)

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).

(Except for Refuse Disposal)

1* BURNER CODES

1. Cyclone furnace
2. Pulverized coal
3. Spreader Stoker
4. Hand fired
5. Other stoker (specify)

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)

(FOR AGENCY USE ONLY)	
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[illegible]

Fuel Type

Supplier

[illegible][illegible]

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

*** 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.)

PAGE 1

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

[illegible]

***Specify Units of Measure Used**

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

12

[illegible]

*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 Data.
 - 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.

A

A	Company Name	Information for Year	(Agency Use Only)
	Address	Date	

B	Description of Waste Materials	C	D	E
	Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal ^{1*}
	None			

If Waste Disposal is by Incineration, Specify the Following:

- ### 1. Type of Incinerator:

- ☐ single chamber
☐ multiple Chamber
☐ Modified (describe)
☐ Other (describe)

- | | |
|---------------------------------|-----------------------------------|
| <input type="checkbox"/> Rotary | <input type="checkbox"/> Flue Fed |
|---------------------------------|-----------------------------------|

2. Manufacturer's Name:

Model Number	Pounds / Hour	Type Waste
Rated Capacity	Pounds / Day	
3. Quantity Burned:	Tons / Year	
	Hours / Day	
4. Operating Schedule	Days / Year	#1 Disposal

4. Operating Schedule

#1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group – 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 condensers (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

NBA

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

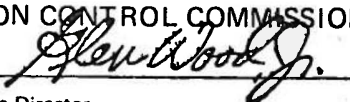
has been granted permission to operate Air Emissions Equipment in connection with the operation of the plant or process Two (2) Riley-Stoker, Union Iron Works, Type MH Steam Boilers

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.

AIR AND WATER POLLUTION CONTROL COMMISSION


Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-004

666



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.

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

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

- ☐ Manufacturing or Processing
 ☐ Office
 ☐ Warehouse
☐ Retail or Wholesale Store
 ☐ Hotel or Motel
 ☐ Residential or Apts.
☐ School or Church
 ☐ Hospital or Lab
 ☐ 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.

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).

FUEL SUPPLIERS:

Fuel Type

SEMI TRAIL
SEMI OILS
FUEL OIL
NAT. GAS

Supplier
HERCULES
HERCULES
HESS OIL CO
MINUT GAS CO.

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

***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.)

PAGE 1

Company Name		Address	
Operating Schedule		Information for Calendar Year	Date
		19 ____	
____ Hours / Days ____ Days / Year			

[illegible]

***Specify Units of Measure Used**

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
Address	Date	

B

Description of Waste Materials		C	D	E
Type (Describe)	Estimated Amount For Co. (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
None				

If Waste Disposal is by Incineration, Specify the Following:

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 / Day _____
 Tons / Year _____
 Hours / Day _____
 Days / Year _____

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

- Open Burning
- Landfill (No Burning)
- Incinerator (Complete rest of Form)
- Conical Burner (TeePee)
- Burned in Boiler or Furnance
- Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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 condensers (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

NBA

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 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.

AIR AND WATER POLLUTION CONTROL COMMISSION

Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-003

ADDITIONAL CONDITION IS ATTACHED
MPC FORM

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

APPLICATION FOR PERMIT
TO OPERATE
EXISTING FACILITY

DIVISION OF AIR POLLUTION

This Space For Use By Approving Agency

Date Received: _____

Facility No.: _____

AQCR: _____

3 Tab 11 (100)

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

2. Mailing Address

County

Location
(UTM or LAT-Long)

3. City

State

Zip Code

Telephone

4. Name of Person Completing Form

Title

5. Person to Contact on Air Pollution Matters

Title

Telephone

6. Major Activity

SIC number — — — —

☐ Manufacturing or Processing

☐ Office

☐ Warehouse

☐ Retail or Wholesale Store

☐ Hotel or Motel

☐ Residential or Apts.

☐ School or Church

☐ Hospital or Lab

☐ 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.

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).

(Except for Refuse Disposal)

Company Name

Address

for Agency use Only

Operating Schedule

Hours / Day

Days / Week

Weeks / Year

Information for Calender Year

19 71

2

Reference Number

Manufacturer and Model Number

G C BROACH CO

Rated Capacity
106 BT

36

Type of Burner Unit
(use code 1*).

6

**Usage
(use code 2*)**

100

Most Usage	W/ Business
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
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96	96
97	97
98	98
99	99
100	100

100

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)

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)

FUEL SUPPLIERS:

(FOR AGENCY USE ONLY)

[illegible]

***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.)

PAGE 1

Company Name	Address	
Operating Schedule	Information for Calendar Year	Date
24 Hours / Days 351 Days / Year	19 71	

[illegible]

***Specify Units of Measure Used**

(FOR AGENCY USE ONLY)	
-----------------------	--

[illegible]

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

(FOR AGENCY USE ONLY)

12

[illegible]

***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 Data.
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		Information for Year		(Agency Use Only)
Address		Date		

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
None				

If Waste Disposal is by Incineration, Specify the Following:

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 _____ Type Waste _____
 Pounds / Day _____
 Tons / Year _____
 Hours / Day _____
 Days / Year _____

4. Operating Schedule

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____

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 Refuse 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 Group — 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

Forrest

WBA

**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 39401

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.

Issued this 6th day of February, 19 74.

AIR AND WATER POLLUTION CONTROL COMMISSION

Glen Wood Jr.
Executive Director

Expires 6th day of February, 19 77.

Facility No. 0800-00001-001

ADDITIONAL CONDITION IS ATTACHED
MPC FORM

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.



*Hercules
Jones*

**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.

FORM A GENERAL INFORMATION

1. Owner of Source

Date Submitted

HATTIESBURG PLANT OF HERCULES INC. 9-20-72

2. Detailed Address

County

Location
(UTM or LAT-Long)

P O BOX 1937

FORREST

LAT N 31° 20'

LONG W 89° 18'

3. City

State

Zip Code

Telephone

HATTIESBURG MISSISSIPPI

39401

584-6411

4. Name of Person Completing Form

Title

Charles Jordan

CHEMICAL ENGINEER

5. Person to Contact on Air Pollution Matters

Charles Jordan

Title

Telephone

Chemical Engineer

584-6411

6. Major Activity

SIC number 2861 (MAJOR)

2879 & 2822 (MINOR)



Manufacturing or Processing



Office



Warehouse



Retail or Wholesale Store



Hotel or Motel



Residential or Apts.



School or Church



Hospital or Lab



Other

(Attach Explanation)

7. Signature of Owner or Authorized Company Official

Date

Type or Print Name of Signer

Title

D D KINGERY

PLANT MANAGER

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).

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)

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) _____

(FOR AGENCY USE ONLY)	
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[illegible]

Fuel Type

Supplier

[illegible][illegible]

(FOR AGENCY USE ONLY)	
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[illegible]

***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.)

(FOR AGENCY USE ONLY)	
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[illegible]

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

12

[illegible]

***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 Data.
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	Information for Year	(Agency Use Only)
HERCULES INC	1971	
Address	Date	
PO BOX 1037 HARTLEBURG MISS	9-20-72	

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
NONE				

If Waste Disposal is by Incineration, Specify the Following:

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 / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
2. Landfill (No Burning)
3. Incinerator (Complete rest of Form)
4. Conical Burner (TeePee)
5. Burned in Boiler or Furnance
6. Other (Specify)

(AGENCY USE ONLY)

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 _____
 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 Refuse 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 Group – 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 condensers (tube and shell); air
- 48 barometric condensor with hot wells

50 Group – ELECTRICAL PRECIPITATORS

- 50 single stage
- 51 double stage
- 52 precipitron

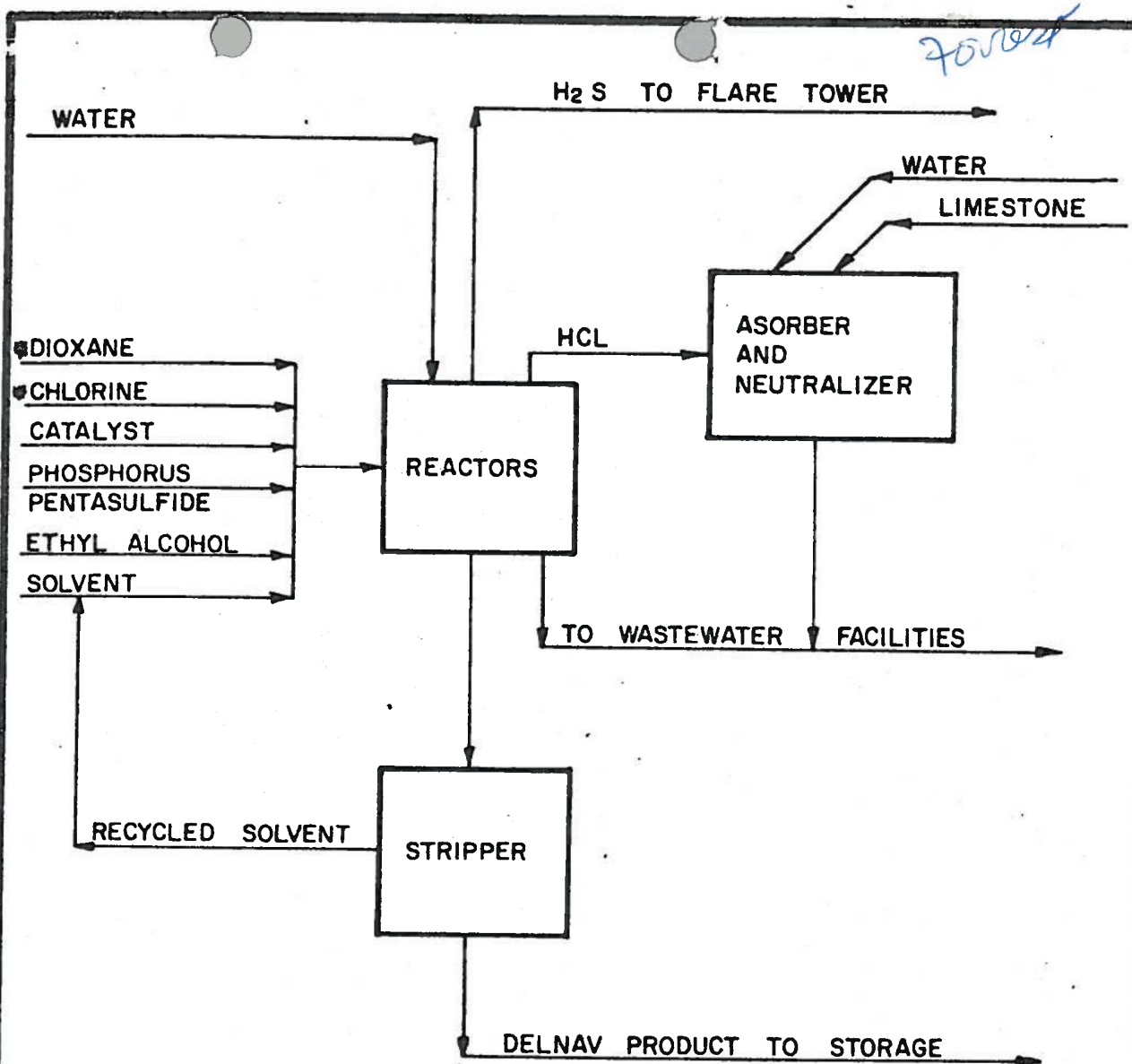
60 Group

- 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: _____

Facility No.: _____

AQCR: _____

Page 1

1* BURNER CODES

1. Cyclone furnace
2. Pulverized coal
3. Spreader Stoker
4. Hand fired
5. Other stoker (specify)

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)

PAGE 1

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

[illegible]

***Specify Unit of Measure Used**

(FOR AGENCY USE ONLY)

(FOR AGENCY USE ONLY)

[illegible]

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

11

12

*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		Information for Year		(Agency Use Only)
Address		Date		

B

Description of Waste Materials		C	D	E
Type (Describe)	Maximum Amount Per Day (Pounds)	Amount Per Year (Tons)	Method of Disposal	1*
None				

If Waste Disposal is by Incineration, Specify the Following:

1. Type of Incinerator:

- ☐ single chamber
☐ multiple Chamber
☐ Modified (describe)
☐ Other (describe)

- ☐ Rotary
☐ Flue Bed

2. Manufacturer's Name:

Model Number

Rated Capacity

3. Quantity Burned:

Pounds / Hour
 Pounds / Day
 Tons / Year
 Hours / Day
 Days / Year

4. Operating Schedule

Type Waste

*1 Disposal Method Codes

1. Open Burning
 2. Landfill (No Burning)
 3. Incinerator (Complete rest of Form)
 5. Burned in Boiler or Furnace
 6. Other (Specify)