

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

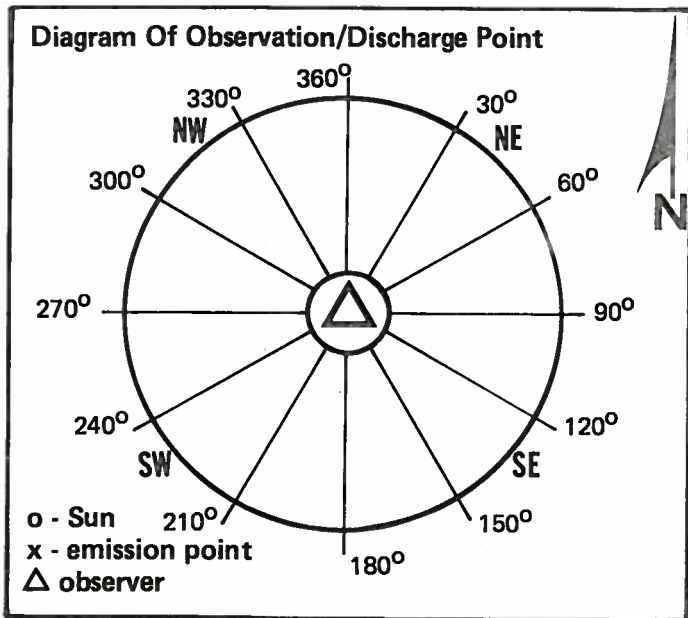
Plant Name: Hercules, Inc.
 Address: West 7th St.
 City: Hattiesburg
 Emission Point: North Stack, Unit 4
 Date: 4-24-86
 Is emission point operation normal? yes

V. E. Observer: Rebecca L. Cornwell
 Certification Expiration: October 1986

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	2:00	2:06	120	5
2	2:06	2:12	120	5
3	2:12	2:18	120	5

	Initial	Final
Distance to discharge	<u>500'</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>225'</u>	_____
Plume color	<u>colorless</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>no</u>	_____
Wind direction (from)	<u>SE</u>	_____
Wind speed	<u>2-5mph.</u>	_____
Ambient temperature	<u>75°</u>	_____
Discharge temperature	_____	_____
Sky conditions	<u>clear</u>	_____

Min.	Seconds			
	0	15	30	45
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5



Remarks: _____

Received By: Signature not available
 by _____ V. E. E

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules, Inc.

Address: West 7th St.

City: Hattiesburg

Emission Point: South Stack, Unit #1

Date: 4-24-86

Is emission point operation normal? yes

V. E. Observer: Rebecca L. Comyns

Certification Expiration: October 1986

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:21	1:27	760	31.7
2	1:27	1:33	520	21.7
3	1:33	1:39	260	10.8

Distance to discharge 500'

Height of observation point 0'

Height of discharge 225'

Plume color brown

Plume background sky

Water vapor in plume? No

Wind direction (from) SE

Wind speed 2-5mph.

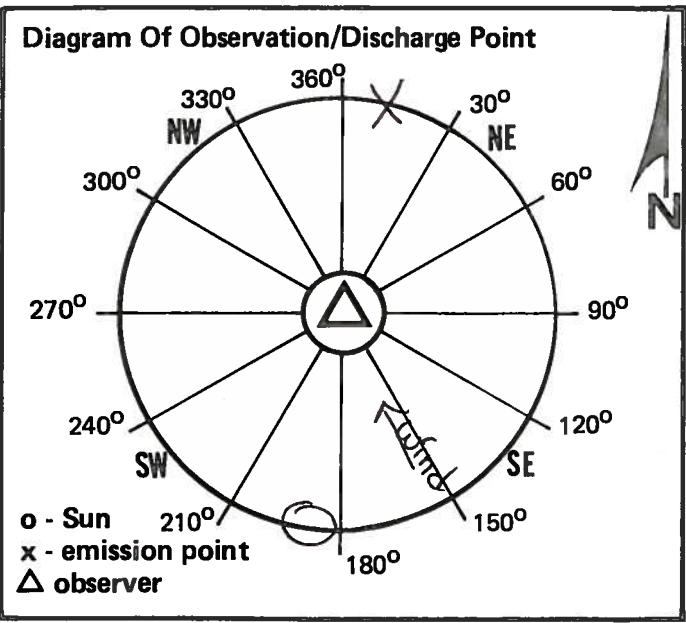
Ambient temperature 75°

Discharge temperature _____

Sky conditions clear

Min.	Seconds			
	0	15	30	45
0	30	30	35	30
1	25	30	20	30
2	25	30	30	25
3	35	30	30	30
4	30	30	35	40
5	35	40	45	40
0	30	20	20	15
1	15	20	25	25
2	30	25	25	25
3	25	20	25	25
4	20	20	25	20
5	15	15	20	15
0	15	15	15	10
1	15	10	10	10
2	10	10	10	15
3	15	10	10	10
4	10	10	10	10
5	5	10	5	5

Remarks: _____



Received By: [Signature]

Cleaned Fires		7 - 3 Shift	3 - 11 Shift	Shift
No. 1 Boiler	Started	7:20	7:20	
	Stopped	5:20	5:20	
No. 2 Boiler	Started			
	Stopped			
No. 3 Boiler	Started			
	Stopped			
No. 4 Boiler	Started			
	Stopped			

Comments on Boiler Operation _____

OPACITY EVALUATION - WOOD BURNING BOILERS

BOILER NO. 1			BOILER NO. 2			BOILER NO. 3			BOILER NO. 4			1.Cleaning Boil
Time	Duration	Note	Time	Duration	Note	Time	Duration	Note	Time	Duration	Note	
												2.Fuel Oil Adjustment
												3.Load Changes
												4.Meter Defect
												5.Cleaning Meter Lenses

COMMENTS ON OPACITY & METER OPERATION _____

Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules Inc.

Address: West 7th Street

City: Hattiesburg

Emission Point: 009

Date: 3-12-86

Is emission point operation normal?

Distance to discharge Initial Final
2 lengths

Direction to discharge N

Height of observation point Ground

Height of discharge 200 feet

Plume color Gray

Plume background Gray Sky

Water vapor in plume?

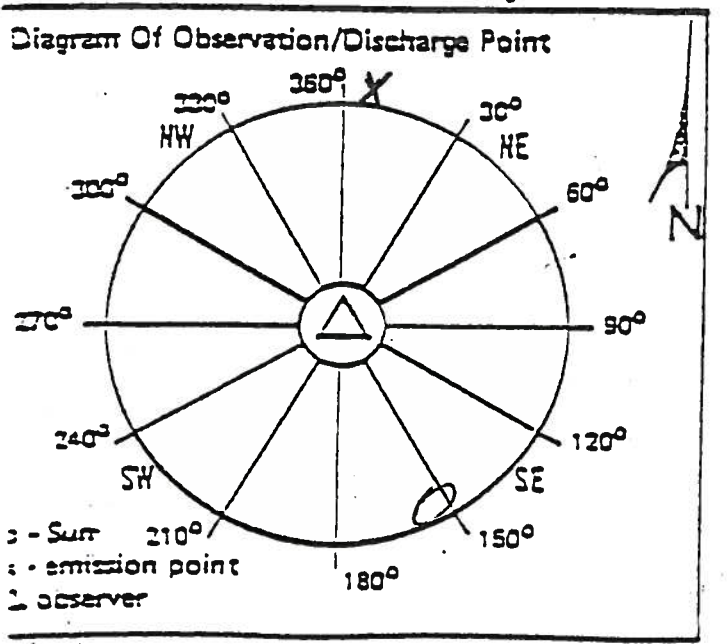
Wind direction (from) SE

Wind speed 20-30 mph

Ambient temperature 75°

Discharge temperature

Sky conditions Cloudy



V. E. Observer: Robbie

Certification Expiration: 4-24-86

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	11:32	11:38	1235	51.5
2	11:38	11:44	800	33.3
3	11:44	11:50	260	10.8

Overall Average: 31.9

Min.	Seconds			
	0	15	30	45
0	15	15	15	20
1	20	20	20	20
2	25	30	30	40
3	50	70	100	100
4	100	100	100	100
5	100	100	30	15
0	15	15	15	15
1	70	100	100	100
2	80	20	20	20
3	20	30	20	20
4	20	20	20	20
5	20	15	15	10
0	10	10	10	10
1	10	20	10	10
2	15	15	15	15
3	15	15	20	10
4	10	10	5	5
5	5	5	5	5

SET NO.	REMARKS
1	
2	
3	

Received By:

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules
 Address: West 7th Street
 City: Hattiesburg
 Emission Point: North Stack
 Date: February 18, 1986
 Is emission point operation normal? yes

V. E. Observer: Detrick B. Allen
 Certification Expiration: April 1986

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:54	2:00	150	6.25
2	2:00	2:06	140	5.8
3	2:06	2:12	260	10.8

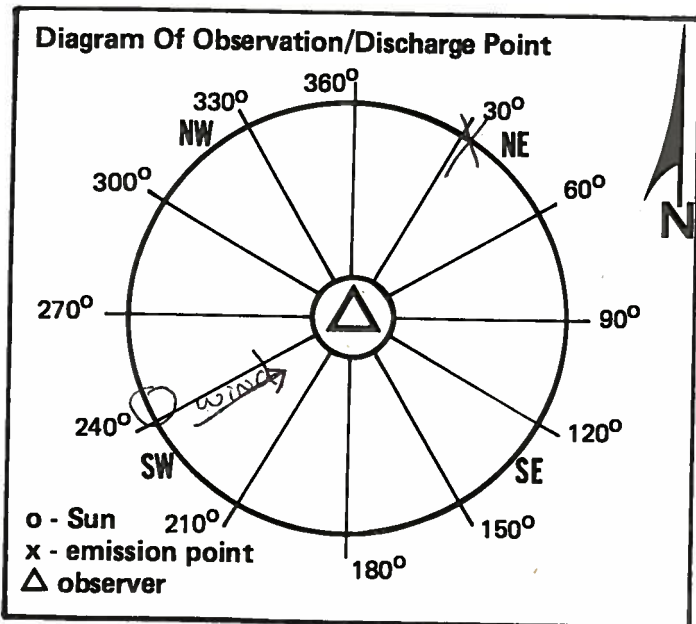
Overall Average: 7.6%

	Initial	Final
Distance to discharge	<u>450ft.</u>	_____
Direction to discharge	<u>NE</u>	_____
Height of observation point	<u>0</u>	_____
Height of discharge	<u>225'</u>	_____
Plume color	<u>BROWN</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>NO</u>	_____
Wind direction (from)	<u>S</u>	_____
Wind speed	<u>2-5mph</u>	_____
Ambient temperature	<u>75°F</u>	_____
Discharge temperature	_____	_____
Sky conditions	<u>p.c. cloudy</u>	_____

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	5	5	5	5
2	5	5	10	10
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	10	5
4	10	10	5	5
5	5	5	5	10
0	5	5	5	10
1	10	5	10	15
2	30	25	20	15
3	10	10	10	10
4	10	5	10	5
5	5	10	10	10

Remarks: _____

Received By: R. C. [Signature]



Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules
 Address: West 7th Street
 City: Hattiesburg
 Emission Point: North Stack
 Date: January 21, 1986
 Is emission point operation normal? yes

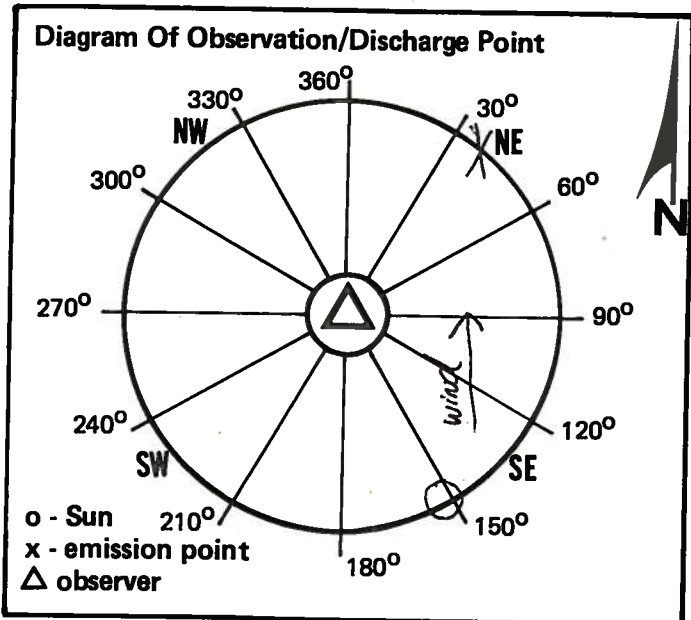
V. E. Observer: Detrick B. Allen
 Certification Expiration: April, 1986

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:00	10:06	275	11.5
2	10:06	10:12	250	10.4
3	10:12	10:18	255	10.6

Overall Average: 10.8%

	Initial	Final
Distance to discharge	<u>450 ft</u>	
Direction to discharge	<u>NE</u>	
Height of observation point	<u>0</u>	
Height of discharge	<u>225 ft.</u>	
Plume color	<u>Black</u>	
Plume background	<u>sky</u>	
Water vapor in plume?	<u>No</u>	
Wind direction (from)	<u>SE</u>	
Wind speed	<u>2-5 mph</u>	
Ambient temperature	<u>60°F</u>	
Discharge temperature		
Sky conditions	<u>p. cloudy</u>	

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	15	15	10	15
2	10	10	10	10
3	10	10	10	10
4	10	10	15	15
5	15	10	15	10
0	15	10	10	15
1	10	10	10	10
2	10	10	10	10
3	5	10	5	5
4	10	10	10	15
5	10	5	10	15
0	15	15	15	15
1	15	10	10	15
2	10	10	10	10
3	10	5	5	10
4	10	10	10	10
5	10	5	10	10



Remarks: Cleaning grates beginning at 7:30 am

Received By: C Jordan

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, Inc.
 Address: WEST 7TH STREET
 City: HATTIESBURG
 Emission Point: North stack
 Date: 9th October 1985
 Is emission point operation normal? yes

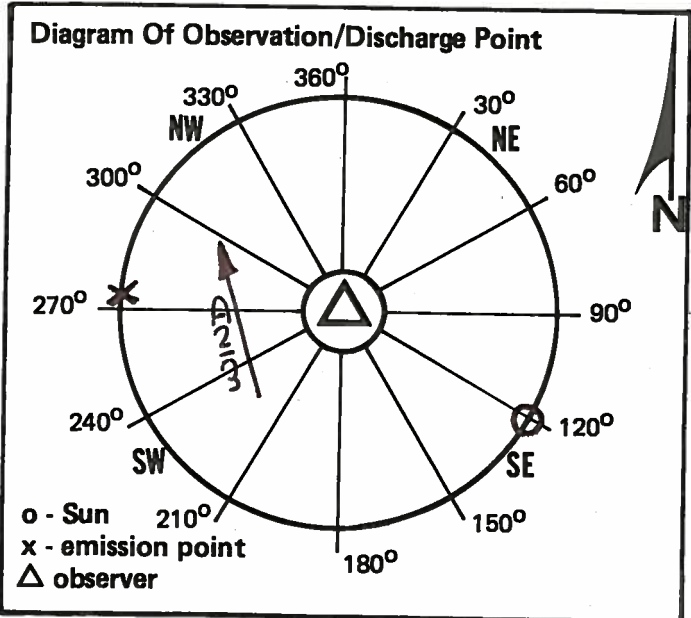
V. E. Observer: HEIDI MOWERY
 Certification Expiration: 10/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	11:10	11:16	145	6
2	11:16	11:22	150	6
3	11:22	11:28	155	67

Overall Average: 67

	Initial	Final
Distance to discharge	<u>600'</u>	
Direction to discharge	<u>WNW</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>225'</u>	
Plume color	<u>none/pale grey</u>	
Plume background	<u>sky</u>	
Water vapor in plume?	<u>no</u>	
Wind direction (from)	<u>SSE</u>	
Wind speed	<u>2-5 mph</u>	
Ambient temperature	<u>75°</u>	
Discharge temperature	<u>405°</u>	
Sky conditions	<u>overcast</u>	

Min.	Seconds			
	0	15	30	45
0	U	U	U	U
1	U	U	U	U
2	U	U	U	U
3	U	U	U	U
4	U	U	U	U
5	U	U	U	U
0	U	U	U	U
1	U	U	U	U
2	U	U	U	U
3	U	U	U	U
4	U	U	U	U
5	U	U	U	U
0	U	U	U	U
1	U	U	U	U
2	U	U	U	U
3	U	U	U	U
4	U	U	U	U
5	U	U	U	U



Remarks: _____

Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.

Address: WEST 7TH STREET

City: P.O. Box 1937, HARRISBURG

Emission Point: north stack

Date: 16th september 1985

Is emission point operation normal? yes

V. E. Observer: HEIDI MOWERY

Certification Expiration: 10/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:05	1:11	125	5
2	1:11	1:17	125	5
3	1:17	1:23	120	5

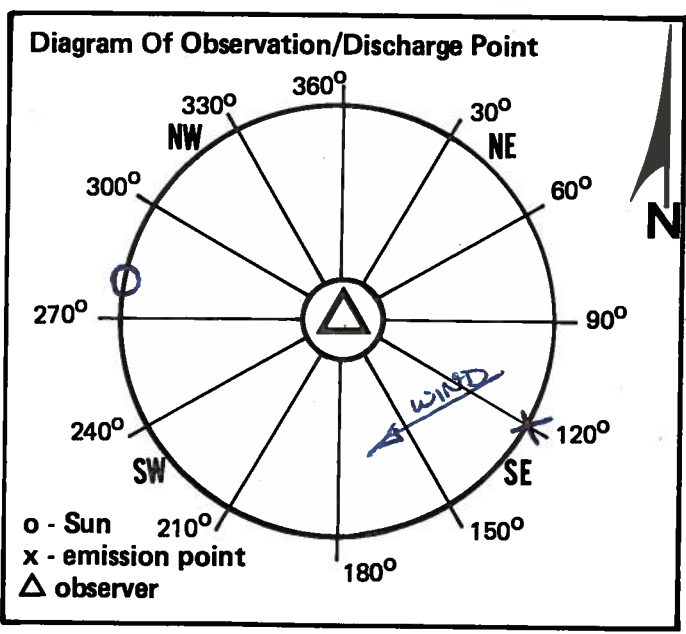
Overall Average: 5%

Min.	Seconds			
	0	15	30	45
0	U	U	U	U
1	U	U	U	U
2	U	U	U	U
3	U	U	U	U
4	U	U	U	U
5	U	U	U	U
0	U	U	U	U
1	U	U	U	U
2	U	U	U	U
3	U	U	U	U
4	U	U	U	U
5	U	U	U	U

Remarks: _____

Received By: Heidi Mowery

	Initial	Final
Distance to discharge	<u>800'</u>	_____
Direction to discharge	<u>WNW</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>225'</u>	_____
Plume color	<u>pale grey</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>no</u>	_____
Wind direction (from)	<u>ENE</u>	_____
Wind speed	<u>5-8 mph</u>	_____
Ambient temperature	<u>80°</u>	_____
Discharge temperature	<u>400°</u>	_____
Sky conditions	<u>sunny w/ scattered clouds</u>	_____



Mississippi Department of Natural Resources
 Bureau of Pollution Control
 Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: WEST 7TH STREET
 City: HATTIESBURG
 Emission Point: NORTH STACK
 Date: 28TH August 1985
 Is emission point operation normal? yes

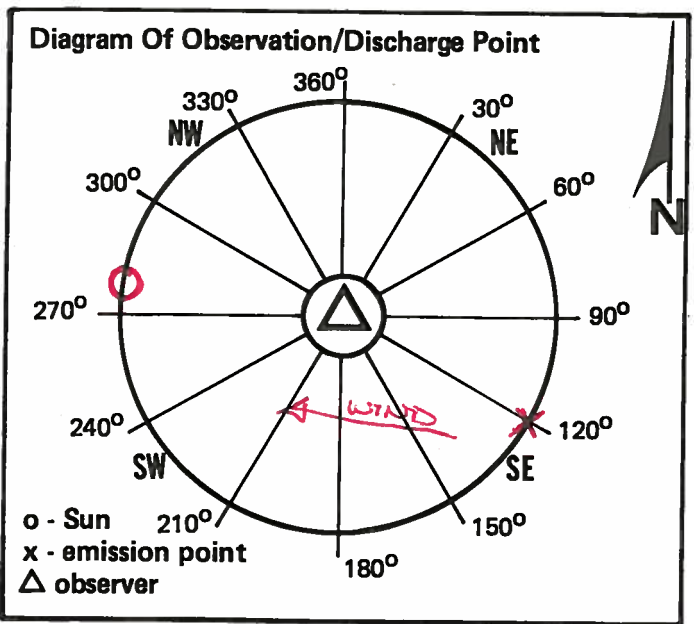
V. E. Observer: Helen Nowery
 Certification Expiration: 10/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:10	1:16	135	6
2	1:16	1:22	145	6
3	1:22	1:28	125	5

Overall Average: 6%

	Initial	Final
Distance to discharge	<u>800'</u>	
Direction to discharge	<u>ESE</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>225'</u>	
Plume color	<u>pale grey</u>	
Plume background	<u>sky</u>	
Water vapor in plume?	<u>no</u>	
Wind direction (from)	<u>ESE</u>	
Wind speed	<u>5-8 mph</u>	
Ambient temperature	<u>85°</u>	
Discharge temperature	<u>410°</u>	
Sky conditions	<u>cloudy</u>	

Min.	Seconds			
	0	15	30	45
0	5	5	10	5
1	5	5	5	5
2	5	5	5	5
3	5	10	5	5
4	5	5	5	10
5	5	5	5	5
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	10	10	10
5	10	10	5	5
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	10	5
5	5	5	5	5



Remarks: only boiler #4 is operating.

Received By: [Signature]

Mississippi Department of Natural Resources
 Bureau of Pollution Control
 Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: P.O. BOX 1937 (W. 7TH AVE)
 City: HATTIESBURG
 Emission Point: NORTH STACK
 Date: 10TH JULY 1985
 Is emission point operation normal? yes

V. E. Observer: HEIDI NOWEY
 Certification Expiration: 10/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:10	1:16	150	6
2	1:16	1:22	175	7
3	1:22	1:28	165	7

Overall Average: 7%

Initial Final

Distance to discharge 800'

Direction to discharge ESE

Height of observation point 0'

Height of discharge 225'

Plume color PALE GREY

Plume background SKY

Water vapor in plume? NO

Wind direction (from) SW

Wind speed 2-5MPH

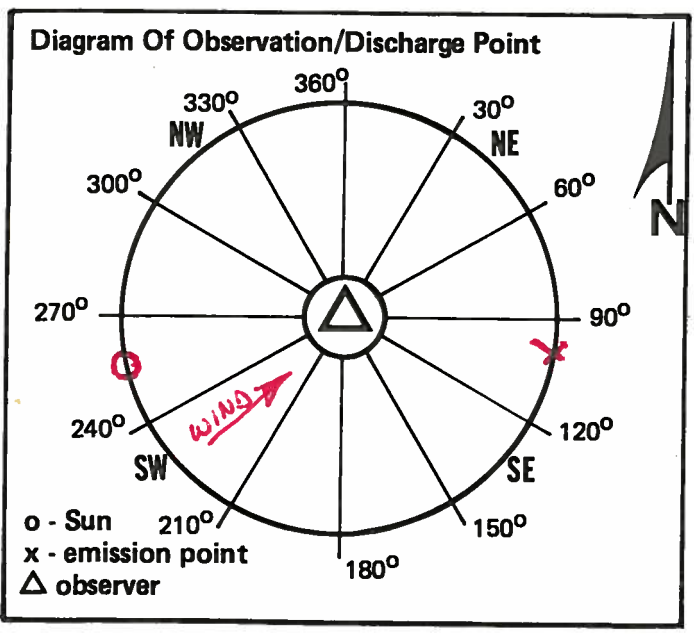
Ambient temperature 90°

Discharge temperature 380°

Sky conditions SUNNY W/SCATTERED CLOUDS

Min.	Seconds			
	0	15	30	45
0	5	10	5	5
1	5	5	10	10
2	5	5	5	5
3	5	10	5	5
4	5	10	10	5
5	5	5	5	5
0	10	5	5	10
1	10	5	5	5
2	5	5	5	5
3	5	10	5	5
4	10	10	10	5
5	10	10	10	10
0	10	5	5	10
1	5	5	5	5
2	5	10	5	5
3	10	5	10	10
4	5	5	5	10
5	10	10	5	5

Remarks: an excursion began shortly after completion of set #3, so VEE was continued until stack opacity returned to the lower level first observed & recorded. further fluctuation was not observed.



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: P.O. Box 1937 (W. 7th Ave.)
 City: HATTIESBURG
 Emission Point: SOUTH STACK (DANGER, HAZARDOUS)
 Date: 10th JULY 1985
 Is emission point operation normal? yes

V. E. Observer: Herb Macey
 Certification Expiration: 10/85

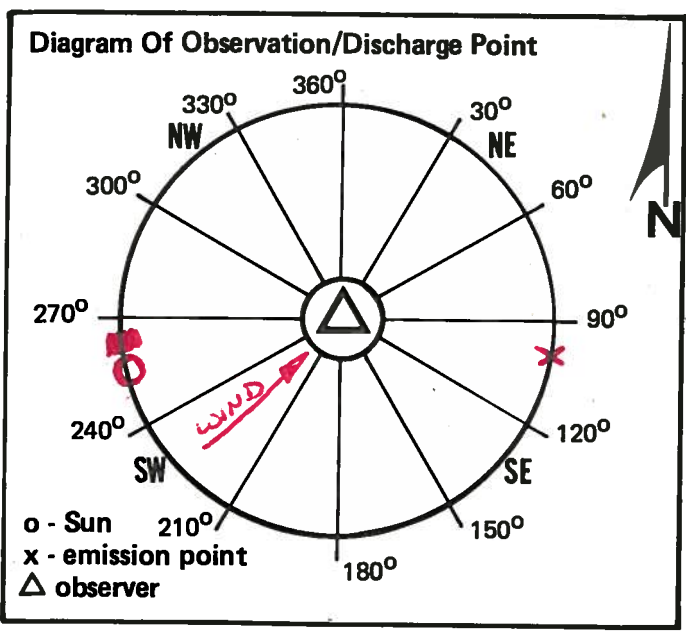
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:10	1:16	325	14
2	1:16	1:22	240	10
3	1:22	1:28	245	10

Overall Average: 11%

	Initial	Final
Distance to discharge	<u>800'</u>	_____
Direction to discharge	<u>ESE</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>200'</u>	_____
Plume color	<u>GREY-BROWN</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>NO</u>	_____
Wind direction (from)	<u>SW</u>	_____
Wind speed	<u>2-5 MPH</u>	_____
Ambient temperature	<u>90°</u>	_____
Discharge temperature	<u>400°</u>	_____
Sky conditions	<u>SUNNY w/ SCATTERED CLOUDS</u>	_____

Min.	Seconds			
	0	15	30	45
0	20	20	25	20
1	25	20	20	15
2	15	10	10	10
3	10	10	10	10
4	10	10	5	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	15	10	10	10
4	10	10	10	10
5	10	10	10	10

Remarks: _____



Received By: Herb Macey

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: P.O. Box 1937 (W. 7TH AVE.)
 City: HATTESBURG
 Emission Point: NORTH STACK ~~(SOUTH STACK)~~
 Date: 10TH JULY 1985
 Is emission point operation normal? yes

V. E. Observer: HEIDI MOWBRAY
 Certification Expiration: 10/85

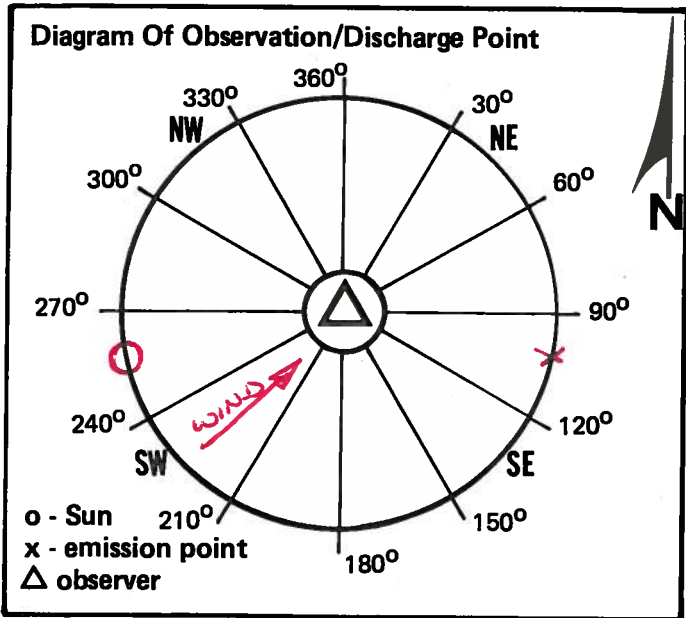
Set No.	Time		Opacity	
	Start	End	Sum	Average
4	1:30	1:36	270	11
5	1:36	1:42	160	7

Overall Average: 9%

	Initial	Final
Distance to discharge	<u>800'</u>	_____
Direction to discharge	<u>ESE</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>725'</u>	_____
Plume color	<u>grey brown</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>NO</u>	_____
Wind direction (from)	<u>SW</u>	_____
Wind speed	<u>2-5 MPH</u>	_____
Ambient temperature	<u>90°</u>	_____
Discharge temperature	<u>380°</u>	_____
Sky conditions	<u>SUNNY w/ SCATTERED CLOUDS</u>	

Min.	Seconds			
	0	15	30	45
0	20	25	25	30
1	25	25	20	20
2	20	15	10	10
3	10	10	10	10
4	15	10	10	10
5	10	10	10	10
0	10	5	5	5
1	5	10	5	5
2	10	5	5	5
3	5	10	10	5
4	5	10	5	5
5	10	5	10	5
0				
1				
2				
3				
4				
5				

Remarks: _____



Received By: Heidi Mowbray

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: P.O. Box 1937
 City: HARRISBURG
 Emission Point: South stack (boilers #1 & #2)
 Date: 20th June 1985
 Is emission point operation normal? yes

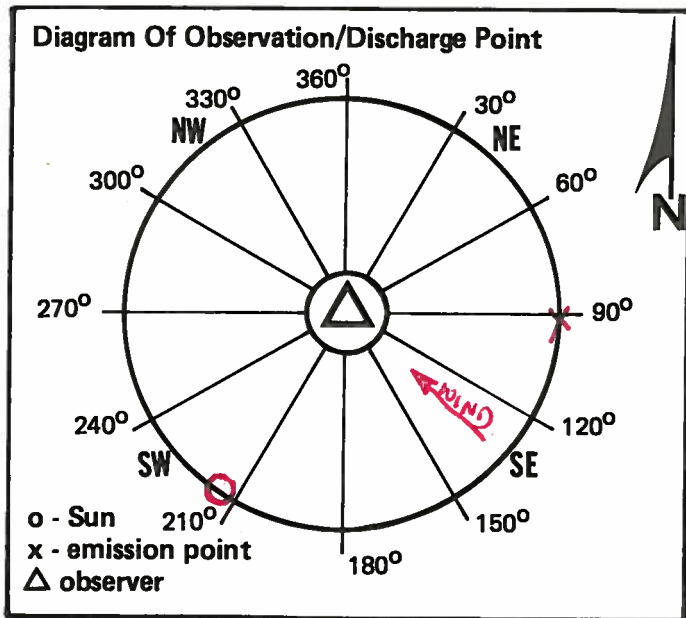
V. E. Observer: Hilda Noweeky
 Certification Expiration: 10/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	2:03	2:09	135	6
2	2:09	2:15	125	5
3	2:15	2:21	145	6

Overall Average: 6%

	Initial	Final
Distance to discharge	<u>800'</u>	
Direction to discharge	<u>NE</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>200'</u>	
Plume color	<u>PALE GRAY</u>	
Plume background	<u>SKY</u>	
Water vapor in plume?	<u>NO</u>	
Wind direction (from)	<u>SE</u>	
Wind speed	<u>2-5 mph</u>	
Ambient temperature	<u>83°</u>	
Discharge temperature		
Sky conditions	<u>P. cloudy</u>	

Min.	Seconds			
	0	15	30	45
0	5	5	10	10
1	10	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
0	5	5	5	5
1	5	5	5	5
2	10	5	5	5
3	10	5	5	5
4	5	5	5	5
5	10	5	5	5



Remarks: heat distortion was visible from stack, although information was that both boilers #1 & #2 were off-line.

Received By: _____

**Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record**

Plant Name: Hercules, Inc.
 Address: P.O. Box 1937
 City: HATTESBURG
 Emission Point: north stack (boilers #3 & 4)
 Date: 20th June 1985
 Is emission point operation normal? yes

V. E. Observer: Heidi Newey
 Certification Expiration: 10/85

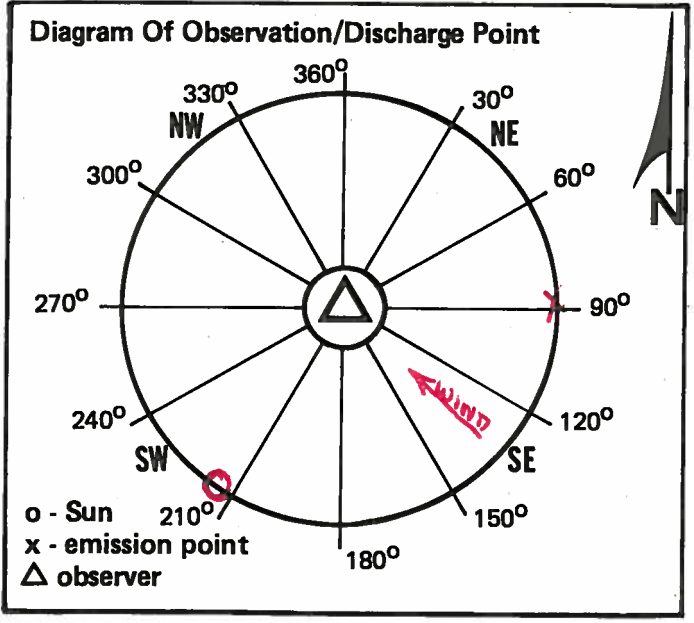
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	2:03	2:09	245	10
2	2:09	2:15	240	10
3	2:15	2:21	295	12

Overall Average: 11%

	Initial	Final
Distance to discharge	<u>800'</u>	_____
Direction to discharge	<u>NE</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>225'</u>	_____
Plume color	<u>lt. grey</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>No</u>	_____
Wind direction (from)	<u>SE</u>	_____
Wind speed	<u>2-5 mph</u>	_____
Ambient temperature	<u>83°</u>	_____
Discharge temperature	<u>#3: not reading</u>	<u>#4: 820°</u>
Sky conditions	<u>P. cloudy</u>	_____

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	10	10	10	15
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	20
1	15	20	15	15
2	15	15	15	10
3	15	10	10	10
4	10	10	10	10
5	10	10	10	10

Remarks: _____



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: W. 7TH AVE.
 City: HATTIESBURG
 Emission Point: north stack (boilers #3-4)
 Date: 22nd May 1985
 Is emission point operation normal? yes

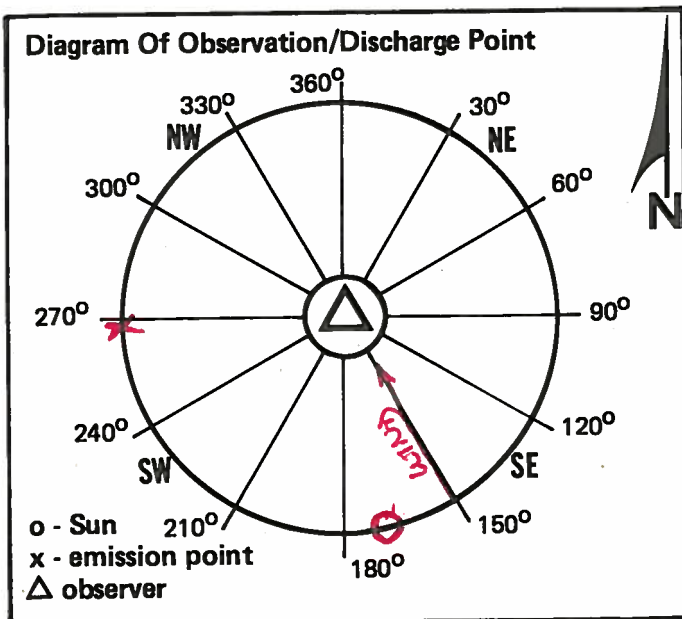
V. E. Observer: HEIDI MOWERY
 Certification Expiration: 10/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	11:15	11:21	145	6
2	11:21	11:27	120	5
3	11:27	11:33	125	5

Overall Average: 5%

	Initial	Final
Distance to discharge	<u>1200'</u>	
Direction to discharge	<u>W</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>225'</u>	
Plume color	<u>none</u>	
Plume background	<u>sky</u>	
Water vapor in plume?	<u>no</u>	
Wind direction (from)	<u>SSE</u>	
Wind speed	<u>2-5 mph</u>	
Ambient temperature	<u>80°</u>	
Discharge temperature	<u>385°</u>	
Sky conditions	<u>cloudy</u>	

Min.	Seconds			
	0	15	30	45
0	5	5	5	10
1	5	5	5	5
2	10	5	5	5
3	5	5	10	5
4	5	10	10	5
5	5	5	5	5
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
0	5	5	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5



Remarks: _____

Received By: Richard A. Van Cest

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, Inc.
 Address: W. 7TH AVE
 City: HATTIESBURG
 Emission Point: south stack (boilers #1 & 2)
 Date: 22nd MAY 1985
 Is emission point operation normal? yes

V. E. Observer: Heidi Mowrey
 Certification Expiration: 10/85

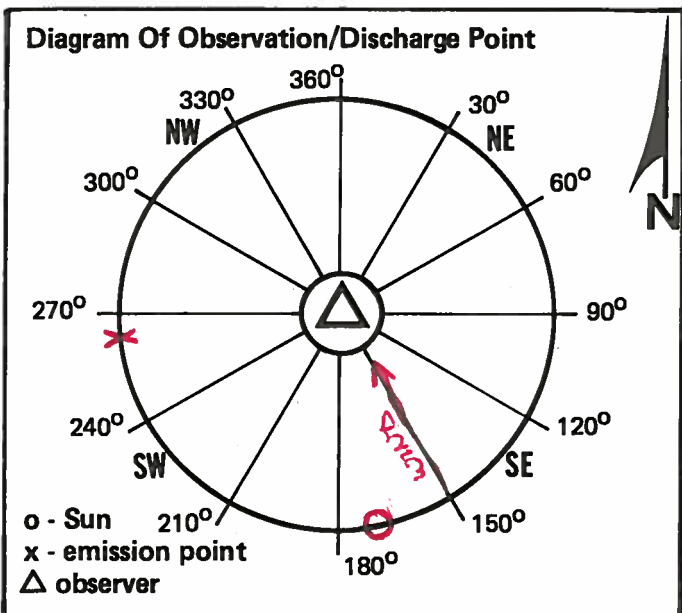
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	11:15	11:21	345	14
2	11:21	11:27	225	9
3	11:27	11:33	165	7

Overall Average: 10%

	Initial	Final
Distance to discharge	<u>1200'</u>	
Direction to discharge	<u>W</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>200'</u>	
Plume color	<u>yellow-grey</u>	
Plume background	<u>sky</u>	
Water vapor in plume?	<u>no</u>	
Wind direction (from)	<u>SSE</u>	
Wind speed	<u>25 mph</u>	
Ambient temperature	<u>80°</u>	
Discharge temperature	<u>285°</u>	
Sky conditions	<u>cloudy</u>	

Min.	Seconds			
	0	15	30	45
0	15	15	15	15
1	15	15	15	15
2	15	15	15	15
3	15	15	15	20
4	15	15	15	15
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	5	5	5	10
0	5	5	5	5
1	10	10	10	10
2	10	10	10	5
3	5	5	5	5
4	5	5	5	5
5	5	5	10	10

Remarks: a 2-3 min. excursion of approximately 25-35% was observed on approach to observation point.



Received By: Richard A. [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules

Address: W. 7th Street

City: Hattiesburg

Emission Point: South Stack (No. 1 & 2)
Boilers

Date: 5/1/85

Is emission point operation normal? Yes *

V. E. Observer: Don Watts

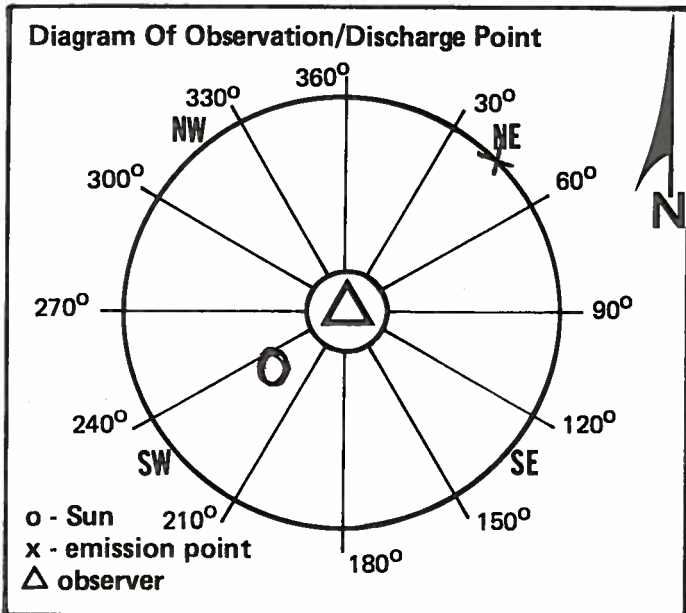
Certification Expiration: 10/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:41	1:47	190	7.9%
2	1:47	1:53	130	5.4%
3	1:53	1:59	135	5.6%

Overall Average: _____

Min.	Seconds			
	0	15	30	45
0	5	5	10	10
1	10	10	10	10
2	5	10	10	10
3	10	10	5	5
4	5	5	5	10
5	10	5	5	10
0	10	10	5	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
0	5	5	10	5
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	10	10
5	5	5	5	5

	Initial	Final
Distance to discharge	<u>300 ft</u>	<u>—</u>
Direction to discharge	<u>NE</u>	<u>—</u>
Height of observation point	<u>0 ft</u>	<u>—</u>
Height of discharge	<u>~275 ft</u>	<u>—</u>
Plume color	<u>white</u>	<u>—</u>
Plume background	<u>sky</u>	<u>—</u>
Water vapor in plume?	<u>No</u>	<u>—</u>
Wind direction (from)	<u>SE</u>	<u>—</u>
Wind speed	<u>0-5 mph</u>	<u>—</u>
Ambient temperature	<u>80°F</u>	<u>—</u>
Discharge temperature	<u>~350°F</u>	<u>—</u>
Sky conditions	<u>Overcast</u>	<u>clouds</u>



Remarks: * During Run 2 of Test.
Note that only No. 1 Boiler on
line at this time. (No. 2 is
down for repairs.)

Steam Production: 24,000 #/hr

Received By: _____

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules

V. E. Observer: Jesse Thompson, Jr.

Address: _____

Certification Expiration: _____

City: Hattiesburg, Mississippi

Emission Point: Boiler ~~010~~ 010

Date: April 30, 1985

Is emission point operation normal? _____

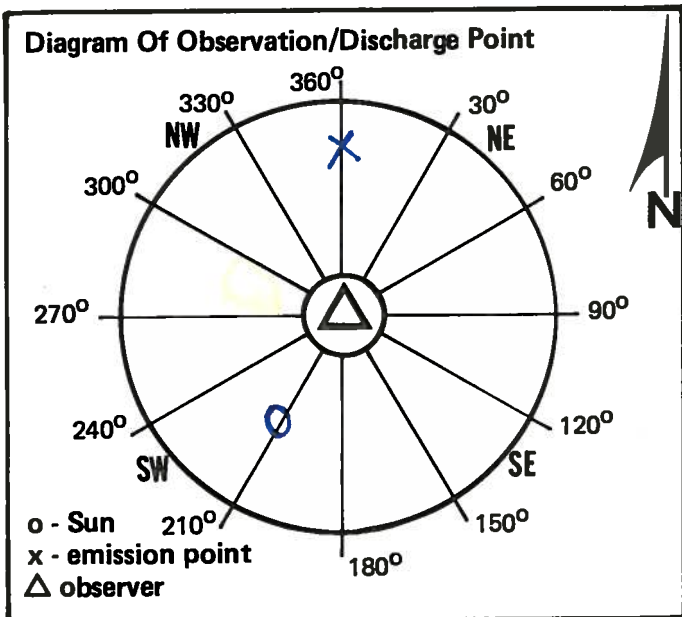
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:18	10:24	640	26.67
2	10:24	10:30	505	21.04
3	10:30	10:36	470	19.58

Overall Average: 22.43

	Initial	Final
Distance to discharge	500 Ft	1'
Direction to discharge	NW	"
Height of observation point	_____	"
Height of discharge	180 Ft	"
Plume color	White	"
Plume background	Blue Sky	"
Water vapor in plume?	_____	_____
Wind direction (from)	NE	_____
Wind speed	5-10 mph	"
Ambient temperature	80	"
Discharge temperature	350°F	"
Sky conditions	Partly Cloudy	"

Min.	Seconds			
	0	15	30	45
0	25	25	30	35
1	30	30	25	30
2	35	25	30	25
3	30	20	25	30
4	30	25	30	25
5	25	20	20	15
0	15	15	20	25
1	25	25	15	20
2	15	20	25	20
3	25	30	30	25
4	20	20	20	15
5	20	20	20	20
0	25	25	30	20
1	15	15	15	15
2	15	20	20	20
3	20	15	15	15
4	15	20	20	45
5	35	15	15	20

Remarks: _____



Received By: *Jordan*

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, Inc.
Address: P.O. Box 1937 / 7th Ave.
City: HAMIBURG
Emission Point: 009/ south stack
Date: 4/9/85
Is emission point operation normal? YES

V. E. Observer: Heidi Mowery
Certification Expiration: 4/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:11	1:17	215	9
2	1:17	1:23	360	15
3	1:23	1:29	990	41

Overall Average: 21%

Initial Final

Distance to discharge 100'

Direction to discharge E

Height of observation point 0'

Height of discharge 200'

Plume color LT. GRAY/BROWN

Plume background SKY

Water vapor in plume? NO

Wind direction (from) NNE

Wind speed 3-5 mph

Ambient temperature 65°

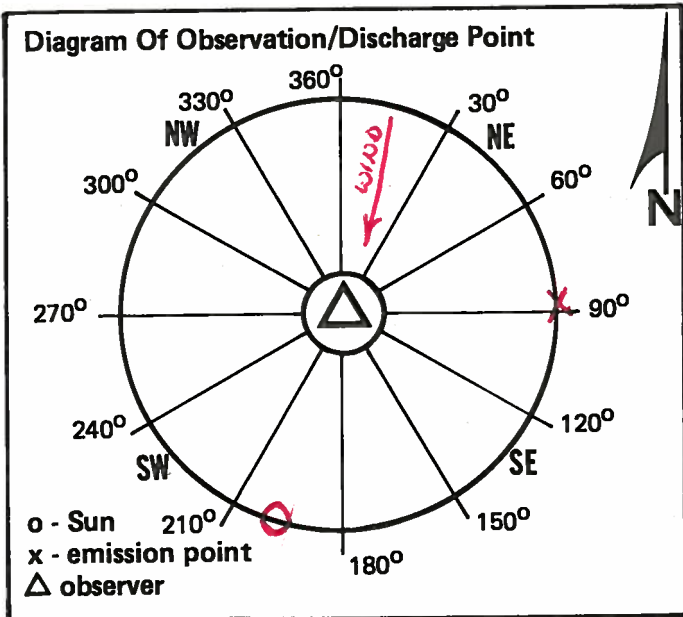
Discharge temperature 480°

Sky conditions CLEAR

Min.	Seconds			
	0	15	30	45
0	30	10	5	5
1	5	5	5	10
2	10	10	10	10
3	10	10	10	5
4	5	5	10	10
5	10	10	10	5
0	10	10	10	10
1	5	10	10	10
2	15	10	10	20
3	20	20	15	25
4	15	15	20	20
5	15	15	25	25
0	30	25	20	20
1	25	30	25	20
2	25	30	35	45
3	45	40	45	55
4	55	55	55	60
5	55	65	65	65

Remarks: very strong odor was detectable when odor & opacity of smoke changed during sets #2-#4; odor ~~dissipat~~ dissipated by end of set #4.

Received By: [Signature]



Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, Inc.
 Address: P.O. Box 1937 / 7th Ave.
 City: HATTIESBURG
 Emission Point: COG / South stack
 Date: 9th April 1985
 Is emission point operation normal? YES

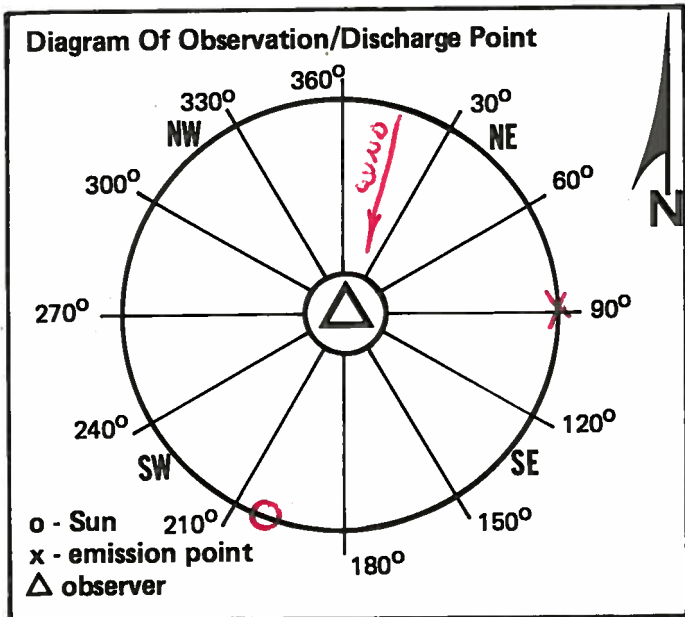
V. E. Observer: HEIDI MAWERY
 Certification Expiration: 4/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
4	1:29	1:35	420	18
5				
6				

Overall Average: 27%

	Initial	Final
Distance to discharge	<u>1000'</u>	
Direction to discharge	<u>E</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>200'</u>	
Plume color	<u>BROWN</u>	
Plume background	<u>SKY</u>	
Water vapor in plume?	<u>NO</u>	
Wind direction (from)	<u>NNE, VARIABLE</u>	
Wind speed	<u>2-5mph</u>	
Ambient temperature	<u>65°</u>	
Discharge temperature	<u>480°</u>	
Sky conditions	<u>CLEAR</u>	

Min.	Seconds			
	0	15	30	45
0	<u>65</u>	<u>60</u>	<u>40</u>	<u>40</u>
1	<u>20</u>	<u>15</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
3	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
4	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
5	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
0				
1				
2				
3				
4				
5				



Remarks: _____

Received By: Heidi Mawery

Mississippi Department of Natural Resources
 Bureau of Pollution Control
 Visible Emissions Evaluation Record

Plant Name: HERCULES, Inc.
 Address: P.O. Box 1937 / 7th AVE.
 City: HATTIESBURG
 Emission Point: 010 / north stack
 Date: 9th April 1985
 Is emission point operation normal? YES

V. E. Observer: HEIDI MowERY
 Certification Expiration: 4/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:11	1:17	605	25
2	1:17	1:23	565	24
3	1:23	1:29	395	17

Overall Average: 22%

Initial Final

Distance to discharge 1000'

Direction to discharge E

Height of observation point 0'

Height of discharge 225'

Plume color white

Plume background sky

Water vapor in plume? No

Wind direction (from) NNE, VARIABLE

Wind speed 3-5 mph

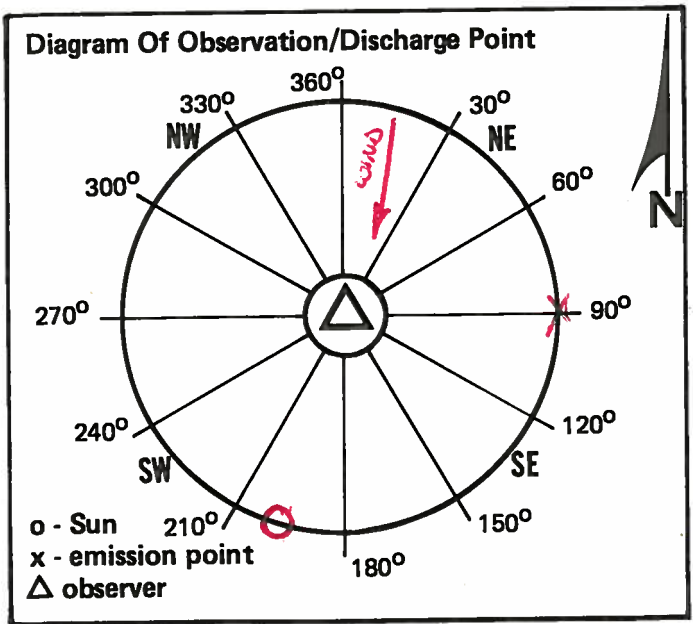
Ambient temperature 65°

Discharge temperature 480°

Sky conditions clear

Min.	Seconds			
	0	15	30	45
0	20	20	20	20
1	25	25	20	30
2	30	25	25	25
3	30	30	25	25
4	30	30	25	25
5	25	25	30	20
0	25	25	25	30
1	25	20	20	20
2	25	20	20	20
3	20	20	25	25
4	25	25	25	25
5	20	20	20	20
0	20	25	20	20
1	15	15	20	20
2	15	20	20	15
3	15	15	15	15
4	15	15	15	15
5	15	10	15	10

Remarks: _____



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: WEST 7TH AVE.
 City: HAMMESBURG
 Emission Point: South stack (0090)
 Date: 22nd March 1985
 Is emission point operation normal? yes

V. E. Observer: Harold Mawrey
 Certification Expiration: 4/85

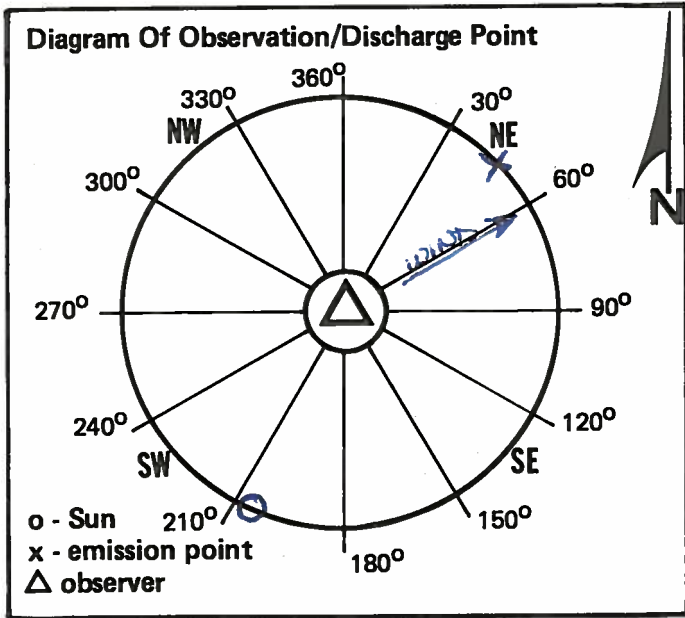
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:36	1:42	250	10
2	1:42	1:48	240	10
3	1:48	1:54	225	9

Overall Average: 10%

	Initial	Final
Distance to discharge	<u>800'</u>	_____
Direction to discharge	<u>NE</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>200'</u>	_____
Plume color	<u>grey</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>no</u>	_____
Wind direction (from)	<u>WSW</u>	_____
Wind speed	<u>5-8mph</u>	_____
Ambient temperature	<u>60°</u>	_____
Discharge temperature	<u>(gauge not registering)</u>	_____
Sky conditions	<u>overcast</u>	_____

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	10	10	10	10
2	10	10	10	15
3	10	10	10	10
4	15	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	5	5	10	10
5	10	5	10	10

Remarks: _____



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules, Inc.
 Address: WEST 7th AVE.
 City: HATTIESBURG
 Emission Point: north stack (010)
 Date: 22nd march 1985
 Is emission point operation normal? yes

V. E. Observer: Herb Mowrey
 Certification Expiration: 4/85

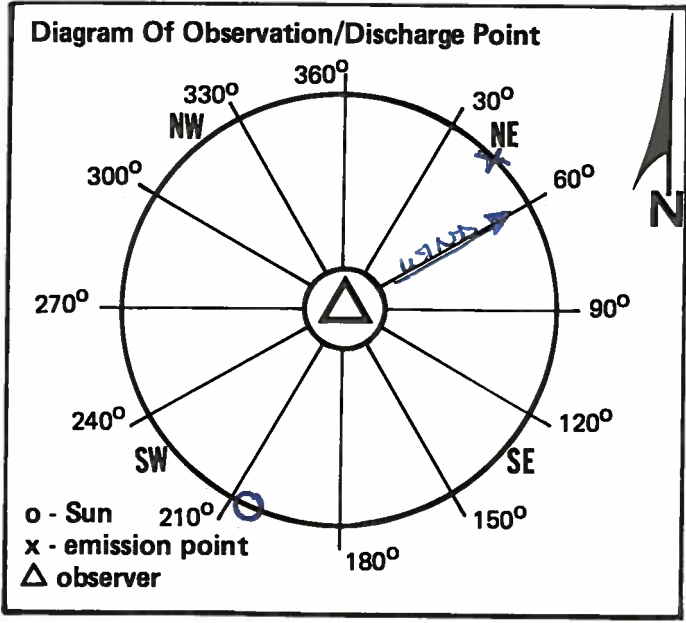
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:36	1:42	315	13
2	1:42	1:48	330	14
3	1:48	1:54	245	10

Overall Average: 12%

	Initial	Final
Distance to discharge	<u>800'</u>	_____
Direction to discharge	<u>NE</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>225'</u>	_____
Plume color	<u>grey</u>	_____
Plume background	<u>sky</u>	_____
Water vapor in plume?	<u>no</u>	_____
Wind direction (from)	<u>WSW</u>	_____
Wind speed	<u>5-8 mph</u>	_____
Ambient temperature	<u>60°</u>	_____
Discharge temperature	<u>420°</u>	_____
Sky conditions	<u>overcast</u>	_____

Min.	Seconds			
	0	15	30	45
0	10	15	10	10
1	10	15	15	10
2	15	15	15	15
3	15	15	15	15
4	15	15	15	10
5	10	10	10	15
0	15	15	15	15
1	15	15	15	15
2	10	15	15	15
3	15	15	10	10
4	15	15	10	10
5	10	15	15	15
0	15	15	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	5	10	10

Remarks: _____



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, Inc.
 Address: WEST 7TH AVE. / P.O. BOX 1937
 City: HATTESBURG
 Emission Point: SOUTH STACK / BOILERS # 3 # 4
 Date: 22ND FEBRUARY 1985
 Is emission point operation normal? YES

V. E. Observer: HEIDI MOWERY
 Certification Expiration: 4/85

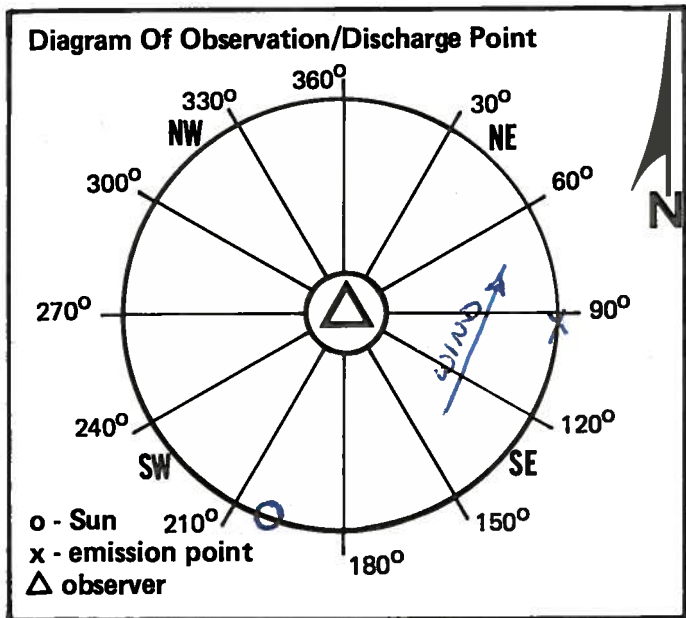
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:14	1:20	340	14
2	1:20	1:26	290	12
3	1:26	1:32	295	12

Overall Average: 13%

	Initial	Final
Distance to discharge	<u>1000'</u>	_____
Direction to discharge	<u>E</u>	_____
Height of observation point	<u>0'</u>	_____
Height of discharge	<u>200'</u>	_____
Plume color	<u>GREY</u>	_____
Plume background	<u>SKY</u>	_____
Water vapor in plume?	<u>NO</u>	_____
Wind direction (from)	<u>SW</u>	_____
Wind speed	<u>10-12 mph</u>	_____
Ambient temperature	<u>63°</u>	_____
Discharge temperature	<u>—</u>	_____
Sky conditions	<u>OVERCAST</u>	_____

Min.	Seconds			
	0	15	30	45
0	15	15	20	15
1	20	20	20	15
2	15	15	15	20
3	15	15	15	15
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	15	15	10
2	10	10	15	15
3	10	15	10	15
4	10	10	15	10
5	15	10	15	15
0	15	10	10	10
1	10	10	10	15
2	15	15	15	15
3	15	15	15	10
4	10	15	15	10
5	10	10	10	10

Remarks: _____



Received By: Heidi Mowery

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: WEST 7TH AVE. / P.O. BOX 1937
 City: HATTIESBURG
 Emission Point: NORTH STACK / BOILERS #3 & #4
 Date: 22ND FEBRUARY 1985
 Is emission point operation normal? YES

V. E. Observer: HEIDI MOWERY
 Certification Expiration: 4/85

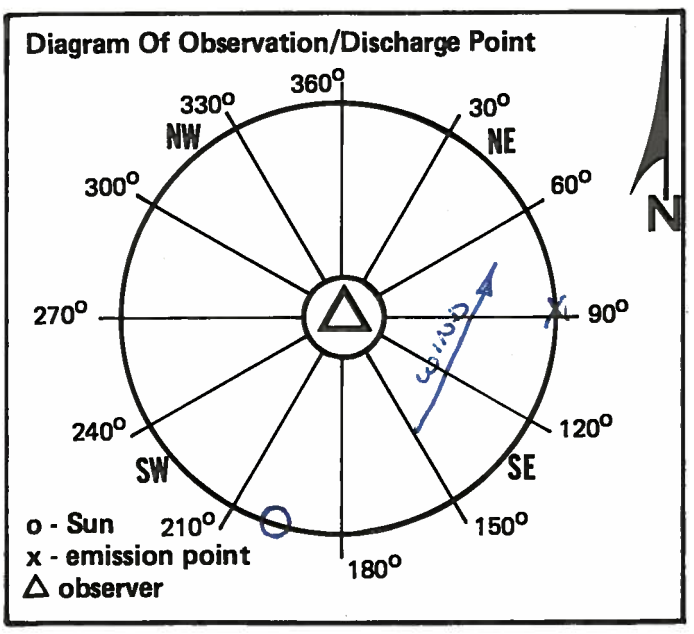
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	1:14	1:20	240	10
2	1:20	1:26	240	10
3	1:26	1:32	240	10

Overall Average: 10%

	Initial	Final
Distance to discharge	<u>1000'</u>	
Direction to discharge	<u>E</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>225'</u>	
Plume color	<u>LT. GREY</u>	
Plume background	<u>SKY</u>	
Water vapor in plume?	<u>NO</u>	
Wind direction (from)	<u>SW</u>	
Wind speed	<u>10-12 mph</u>	
Ambient temperature	<u>63°</u>	
Discharge temperature	<u>415°</u>	
Sky conditions	<u>OVERCAST</u>	

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10

Remarks: _____



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules
Address: W. 7th Street
City: Hattiesburg
Emission Point: North Stack
Date: 1/29/85

V. E. Observer: Don Watts
Certification Expiration: 4/25/85

Is emission point operation normal? Yes (see comments)

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:41	10:47	1890	78.75
2	10:47	10:53	1655	68.96
3	10:53	10:59	2250	93.75

Distance to discharge: ~1000ft
Direction to discharge: NW
Height of observation point: 0
Height of discharge: ~290ft
Plume color: White + Black
Plume background: Sky
Water vapor in plume?: NO
Wind direction (from): E-NE
Wind speed: 0-10
Ambient temperature: 50°F
Discharge temperature: _____
Sky conditions: Clear

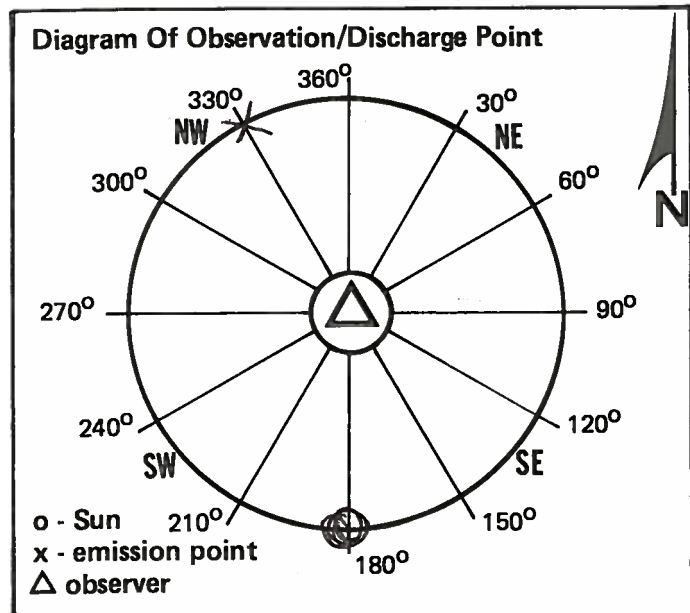
Overall Average: _____

Min.	Seconds			
	0	15	30	45
0	50	45	50	40
1	40	45	65	90
2	90	85	85	90
3	100	100	100	95
4	90	90	95	100
5	90	90	85	80
0	70	60	55	65
1	60	50	45	50
2	50	50	50	55
3	50	65	60	70
4	75	85	95	100
5	100	100	100	95
0	100	100	90	90
1	80	80	90	85
2	95	100	100	100
3	100	100	95	90
4	95	95	85	90
5	100	100	90	100

Remarks: #1 - 55,000#/hr at 1:00 PM; was being cleaned from 9:55 to 11:35 am

#2 - OFF LINE were feeding wet sawdust to #1

Received By: [Signature]



Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
Address: P.O. Box 1937
City: HATTESBURG
Emission Point: SOUTH STACK
Date: 29th JANUARY 1985
Is emission point operation normal? YES

V. E. Observer: HEIDI MOWERY
Certification Expiration: 4/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:57	11:03	240	10
2	11:03	11:09	240	10
3	11:09	11:15	250	10

Overall Average: 10%

Initial Final

Distance to discharge 600'

Direction to discharge W

Height of observation point 0'

Height of discharge 180'

Plume color grey

Plume background sky

Water vapor in plume? NO

Wind direction (from) SE

Wind speed 5mph

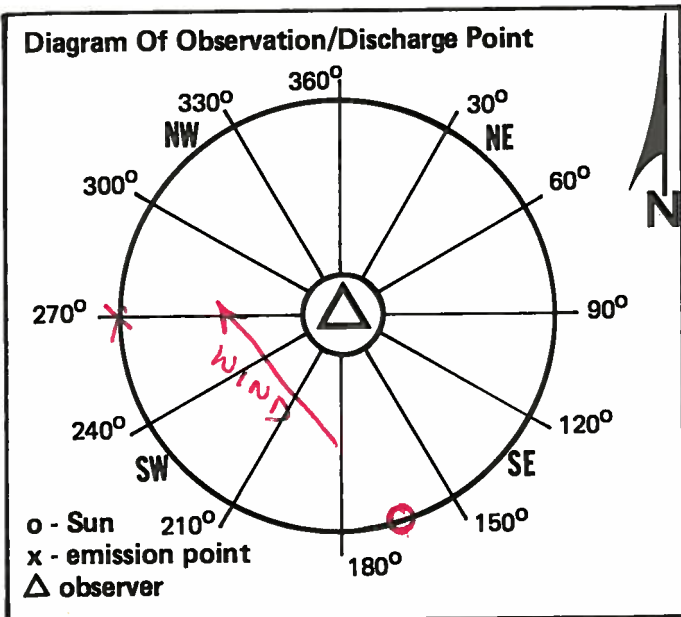
Ambient temperature 50°

Discharge temperature 400°

Sky conditions clear

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	15	10	15

Remarks: _____



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules
 Address: W. 7th Street
 City: Hattiesburg
 Emission Point: South Stack
 Date: 1/29/85
 Is emission point operation normal? Yes

V. E. Observer: Don Watts
 Certification Expiration: 4/25/85

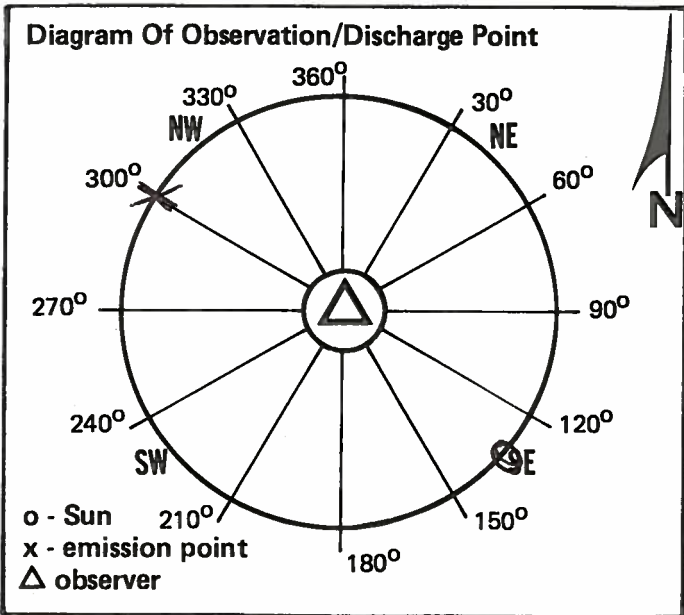
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:17	10:23	195	8.13
2	10:23	10:29	450	18.75
3	10:29	10:35	600	25.0

Overall Average: _____

	Initial	Final
Distance to discharge	<u>~700 ft</u>	_____
Direction to discharge	<u>W-NW</u>	_____
Height of observation point	<u>0</u>	_____
Height of discharge	<u>~275 ft</u>	_____
Plume color	<u>White</u>	_____
Plume background	<u>SKY</u>	_____
Water vapor in plume?	<u>NO</u>	_____
Wind direction (from)	<u>E-NE</u>	_____
Wind speed	<u>0-10 mph</u>	_____
Ambient temperature	<u>50°F</u>	_____
Discharge temperature	_____	_____
Sky conditions	<u>Clear</u>	_____

Min.	Seconds			
	0	15	30	45
0	0	5	5	5
1	5	5	10	5
2	5	5	5	10
3	5	5	5	5
4	5	5	10	15
5	15	20	20	20
0	15	20	20	15
1	15	20	15	15
2	20	15	15	15
3	15	20	20	20
4	25	20	25	20
5	20	20	30	15
0	20	15	20	20
1	20	25	20	25
2	30	35	30	35
3	30	30	30	25
4	30	25	25	20
5	30	20	20	20

Remarks: #3 - ~ 50,000 #/hr
#4 - ~ 35,000 #/hr



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules
 Address: W. 7th Street
 City: Hattiesburg
 Emission Point: North Stack
 Date: 1/29/85

V. E. Observer: Don Watts
 Certification Expiration: 4/25/85

Is emission point operation normal? Yes (see Comments)

Set No.	Time		Opacity	
	Start	End	Sum	Average
4	10:59	11:05	1895	78.96
5	11:05	11:11	1280	53.33
6	11:11	11:17	1340	55.83

Initial Final

Distance to discharge ~1000ft

Direction to discharge NW

Height of observation point 0

Height of discharge ~290ft

Plume color Black + White

Plume background SKY

Water vapor in plume? NO

Wind direction (from) E-NE

Wind speed 0-10mph

Ambient temperature 50°F

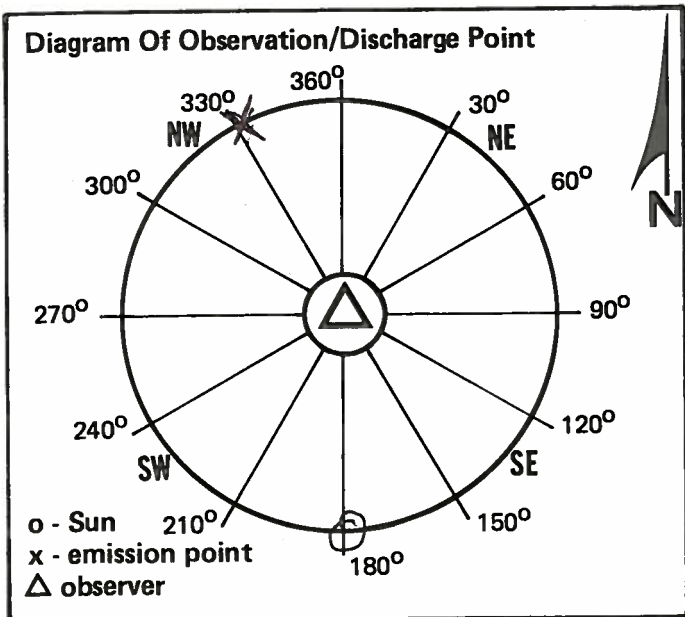
Discharge temperature _____

Sky conditions Clear

Overall Average: _____

Min.	Seconds			
	0	15	30	45
0	100	100	100	95
1	100	100	85	90
2	85	100	100	100
3	85	100	100	95
4	90	90	85	70
5	60	50	40	35
0	40	50	50	55
1	60	55	50	45
2	45	40	40	50
3	50	50	40	90
4	60	40	45	50
5	80	85	55	55
0	50	40	40	40
1	40	45	45	35
2	40	100	100	90
3	90	80	85	80
4	75	50	40	40
5	30	30	30	45

Remarks: See previous page



Received By: [Signature]

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
 Address: P.O. Box 1937
 City: HATTIESBURG
 Emission Point: NORTH STACK
 Date: 29TH JANUARY 1985
 Is emission point operation normal? YES

V. E. Observer: HERD MOWERY
 Certification Expiration: 4/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:57	11:03	1690	85
2	11:03	11:09	900	45
3	11:09	11:15	800	40

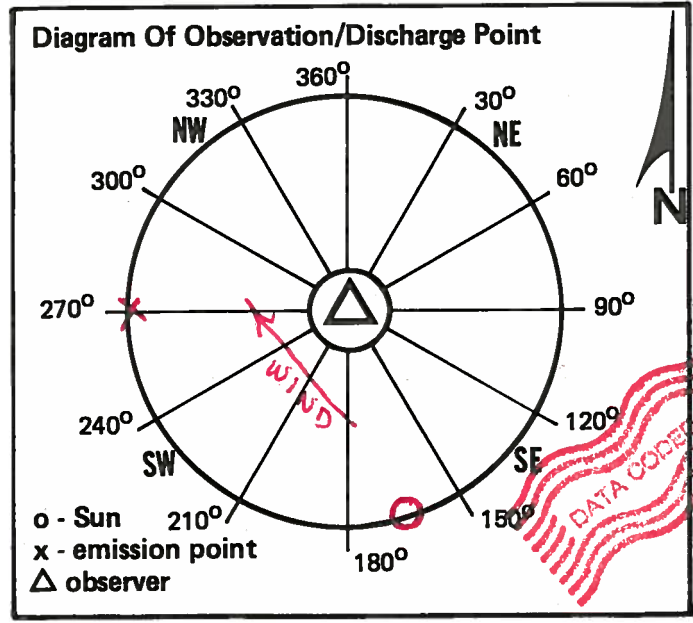
Overall Average: 57%

	Initial	Final
Distance to discharge	<u>600'</u>	
Direction to discharge	<u>N</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>180'</u>	
Plume color	<u>GREY/BLACK</u>	
Plume background	<u>SKY</u>	
Water vapor in plume?	<u>YES</u>	
Wind direction (from)	<u>SE</u>	
Wind speed	<u>5mph</u>	
Ambient temperature	<u>50°</u>	
Discharge temperature	<u>390°-410°</u>	
Sky conditions	<u>CLEAR</u>	

Min.	Seconds			
	0	15	30	45
0	100	100	85	75
1	95	80	75	55
2	60	65	60	75
3	100	70	50	85
4	100	80	55	55
5	50	40	50	50
0	55	55	55	50
1	50	65	40	40
2	45	35	35	30
3	30	25	25	30
4	30	30	30	30
5	30	30	25	25
0	25	25	30	35
1	35	30	35	35
2	35	30	35	50
3	65	30	25	25
4	30	25	35	30
5	30	35	35	35

Remarks: excessive emissions continued after U.E.E. was completed.
Mr. Vanbeek contacted boiler operator to find that boiler #1 was having grates raked. In addition, wet saw-dust was going into boiler

Received By: [Signature]



Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules, inc.
 Address: p.o. box 1937
 City: Kathiesburg
 Emission Point: north stack
 Date: 4th January 1985
 Is emission point operation normal? yes

V. E. Observer: Heidi Morvey
 Certification Expiration: 4/85

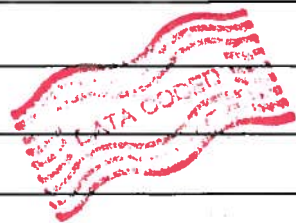
Set No.	Time		Opacity	
	Start	End	Sum	Average
1	2:13	2:19	240	10
2	2:19	2:25	240	10
3	2:25	2:31	240	10

Overall Average: 10%

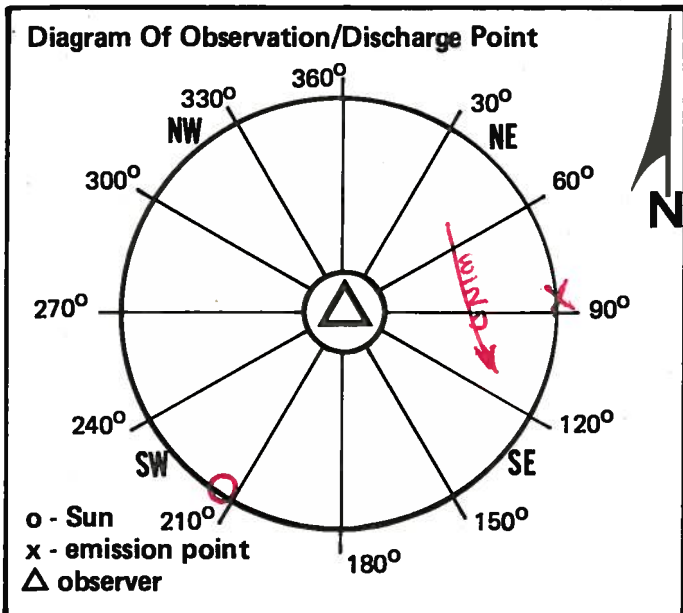
	Initial	Final
Distance to discharge	<u>600'</u>	
Direction to discharge	<u>E</u>	
Height of observation point	<u>0'</u>	
Height of discharge	<u>200'</u>	
Plume color	<u>grey</u>	
Plume background	<u>sky</u>	
Water vapor in plume?	<u>no</u>	
Wind direction (from)	<u>NNW</u>	
Wind speed	<u>15-18mph</u>	
Ambient temperature	<u>35°</u>	
Discharge temperature		
Sky conditions	<u>p. cloudy</u>	

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10

Remarks: _____



Received By: P.C. [Signature]



Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: hercules, inc.
Address: p.o. box 1937
City: hattiesburg
Emission Point: south stack
Date: 4th january 1985
Is emission point operation normal? yes

V. E. Observer: keidi mowery
Certification Expiration: 4/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	2:13	2:19	295	12
2	2:19	2:25	240	10
3	2:25	2:31	255	11

Overall Average: 11%

Initial Final

Distance to discharge 600'

Direction to discharge E

Height of observation point 0'

Height of discharge 200'

Plume color grey

Plume background sky

Water vapor in plume? no

Wind direction (from) NW

Wind speed 15-18 mph

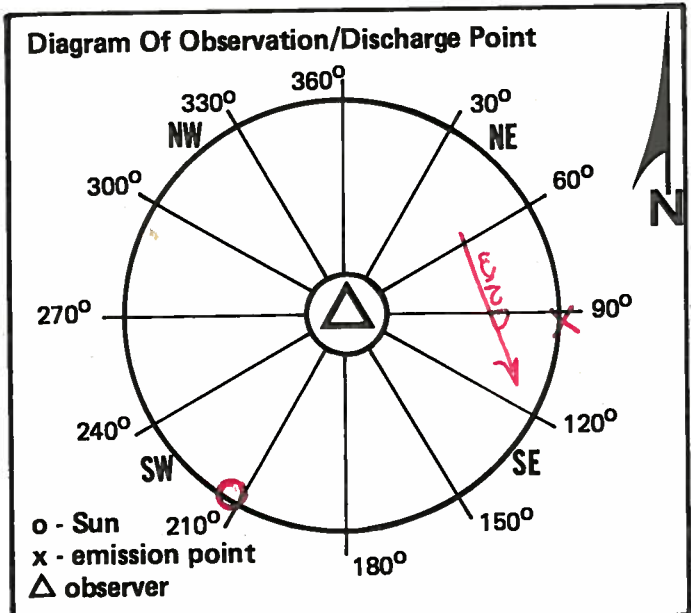
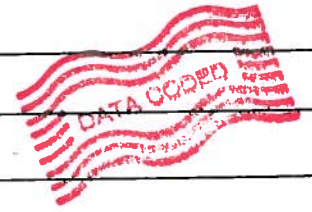
Ambient temperature 35°

Discharge temperature _____

Sky conditions p. cloudy

Min.	Seconds			
	0	15	30	45
0	10	10	10	10
1	10	10	15	15
2	15	15	15	15
3	15	15	10	10
4	15	10	10	10
5	15	10	15	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
0	10	10	10	10
1	10	10	10	10
2	10	10	10	10
3	10	10	10	15
4	15	10	10	10
5	10	10	10	15

Remarks: _____



Received By: L.C. Felt

NAME: HERCULES

ADDRESS: _____ Page of

EMS NO. 11110-0181010-010101011

PLANT TYPE: _____

MAJOR MINOR ()

Source/ Reference

Emission Point Description Combination Boilers No. 1 + No. 2

Emission Point No. 009

Emission Data: SOUTH STACK TOTAL FOR BOTH BOILERS

Stack Height: 200 ft. BASED ON 5/1/85 + 5/27/85

Exit Gas Temperature: 375 °F STACK TESTS

Exit Diameter: 10 ft.

Exit Velocity: 31.2 ft/sec

Volumetric Flowrate: 147,198 acfm

Emission Rates:		lb/hr	tons/yr	Date	
Current Allowable	PM	220.9	968	1985	APC-5-1 (6.3g/ds)
	SO ₂				
	NO _x				
	CO				
	HC				
	OTHER				
Current Actual	PM	37.2	163	1985	Test Report AP-42 (1.6)
	SO ₂	2.2	9.7	}	}
	NO _x	41.4	181.5		
	CO	59.2	259.3		
	HC	25.2	110.2		
	OTHER				
Applicable Baseline Emission Rate		Act.	All.	Act.	All.
	PM				
	SO ₂				
	NO _x				
	CO				
	HC				
	OTHER				

UTM ZONE: 16 AQCR: 005

UTM NORTH: 3469.2 LATITUDE: _____

UTM EAST: 280.6 LONGITUDE: _____

OPERATING SCHEDULE: 24 Hours/Day 7 Days/Week 52 Weeks/Year 8760 Hours/Year

PSD Review Subject: NO NSPS: NO NESHAPS: NO

SCC CODE: _____ SIC CODE: _____

COMMENTS: NEDS
ID = 02

NAME: HERCULES

ADDRESS: _____

EMS NO. 11110-0181010-010101011

PLANT TYPE: _____

MAJOR MINOR ()

Source/ Reference

Emission Point Description: Combination Boilers No. 3 + No. 4

Emission Point No.: 010

Emission Data: NORTH STACK

Stack Height: 225 ft.

Exit Gas Temperature: 382 °F

Exit Diameter: 10 ft.

Exit Velocity: 33.6 ft/sec

Volumetric Flowrate: 158,299 acfm

Emission Rates:		lb/hr	tons/yr	Date	
Current Allowable	PM	232.2	1017	1985	APC-S-1 (.3gn/dscf)
	SO ₂				
	NO _x				
	CO				
	HC				
	OTHER				
Current Actual	PM	57.9	253.6	1985	Test Report AP-42 (1.6)
	SO ₂	2.2	9.7	}	}
	NO _x	41.4	181.5		
	CO	59.2	259.3		
	HC	25.2	110.2		
	OTHER				
Applicable Baseline Emission Rate		Act.	All.	Act.	All.
	PM				
	SO ₂				
	NO _x				
	CO				
	HC				
	OTHER				

UTM ZONE: _____ AOCR: _____

UTM NORTH: _____ LATITUDE: _____

UTM EAST: _____ LONGITUDE: _____

OPERATING SCHEDULE: Hours/Day Days/Week Weeks/Year Hours/Year

PSD Review Subject: NSPS: NESHAPS:

SCC CODE: SIC CODE:

COMMENTS: NEDS
ID = ~~02~~ 02

Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: Hercules
 Address: W. 7th Street
 City: Hattiesburg
 Emission Point: North Stack
 Date: 1/29/85

V. E. Observer: Don Watts
 Certification Expiration: 4/25/85

Is emission point operation normal? Yes (see comments)
 Initial _____ Final _____

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:41	10:47	1890	78.75
2	10:47	10:53	1655	68.96
3	10:53	10:59	2250	93.75

Overall Average: _____

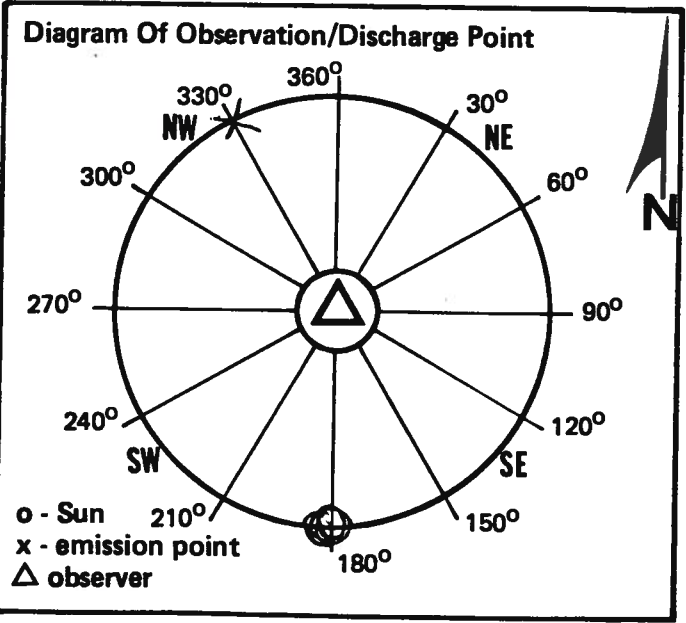
Min.	Seconds			
	0	15	30	45
0	50	45	50	40
1	40	45	65	90
2	90	85	85	90
3	100	100	100	95
4	90	90	95	100
5	90	90	85	80
0	70	60	55	65
1	60	50	45	50
2	50	50	50	55
3	50	65	60	70
4	75	85	95	100
5	100	100	100	95
0	100	100	90	90
1	80	80	90	85
2	95	100	100	100
3	100	100	95	90
4	95	95	85	90
5	100	100	90	100

Remarks: #1 - 55,000#/hr at 1:00 PM; was being cleaned from 9:55 to 11:35 am

#2 - OFF LINE
were feeding wet sawdust to #1

Received By: R. A. [Signature]

Distance to discharge ~1000ft
 Direction to discharge NW
 Height of observation point 0
 Height of discharge ~290ft
 Plume color White + Black
 Plume background Sky
 Water vapor in plume? NO
 Wind direction (from) E-NE
 Wind speed 0-10
 Ambient temperature 50°F
 Discharge temperature _____
 Sky conditions Clear



Mississippi Department of Natural Resources
Bureau of Pollution Control
Visible Emissions Evaluation Record

Plant Name: HERCULES, INC.
Address: P.O. Box 1937
City: HATTIESBURG
Emission Point: NORTH STACK
Date: 29TH JANUARY 1985
Is emission point operation normal? YES

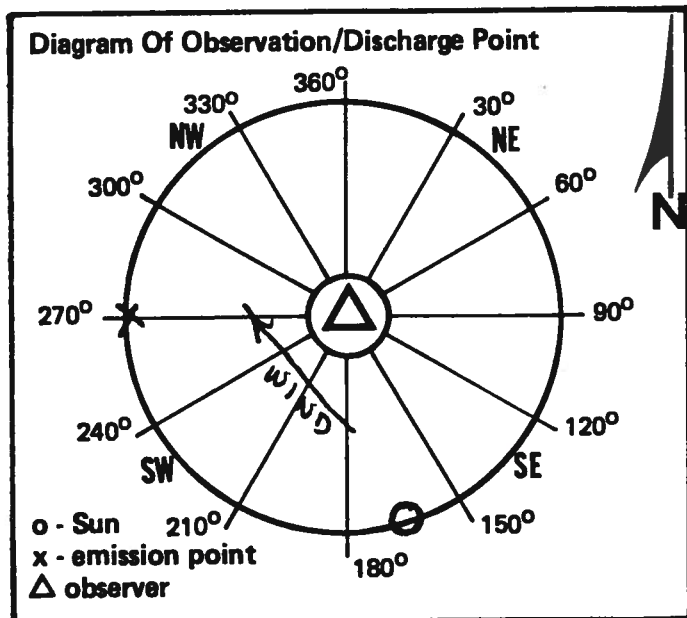
V. E. Observer: HEIDI MOWERY
Certification Expiration: 4/85

Set No.	Time		Opacity	
	Start	End	Sum	Average
1	10:57	11:03	1690	85
2	11:03	11:09	900	45
3	11:09	11:15	800	40

Overall Average: 57%

Distance to discharge 600' Initial Final
Direction to discharge N
Height of observation point 0'
Height of discharge 180'
Plume color GREY/BLACK
Plume background SKY
Water vapor in plume? YES
Wind direction (from) SE
Wind speed 5mph
Ambient temperature 50°
Discharge temperature 390°-410°
Sky conditions CLEAR

Min.	Seconds			
	0	15	30	45
0	100	100	85	75
1	95	80	75	55
2	60	65	60	75
3	100	70	50	85
4	100	80	75	55
5	50	40	50	50
0	55	55	55	50
1	50	65	40	40
2	45	35	35	30
3	30	25	25	30
4	30	30	30	30
5	30	30	25	25
0	25	25	30	35
1	35	30	35	35
2	35	30	35	50
3	65	30	25	25
4	30	25	35	30
5	30	35	35	35



Remarks: excessive emissions continued
after V.E.E. was completed.
Mr. Vanbeek contacted boiler operator
to find that boiler #1 was leaving
grates raked. In addition, wet saw-
dust was going into boiler

Received By: [Signature]