

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
 Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. (Extra charge)      2.  Restricted Delivery (Extra charge)

3. Article Addressed to: Mr. John W. Moon, Jr, VP Sulphur Terminals Co 835 Union St New Orleans, LA 70112	4. Article Number P 256 396 236
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature - Addressee X <i>[Signature]</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery 11 19 90	

P 256 396 236

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

U.S.G.P.O. 1989-234-555

PS Form 3800, June 1985

Sent to	John Moon
Street and No.	Sulphur Terminals
P.O., State and ZIP Code	835 Union St
Postage	New Orleans, La
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	AC 17-167679 11-15-90



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
NOTICE OF PERMIT

Mr. John W. Moon, Jr., Vice President  
Sulfur Terminals Co., Inc.  
835 Union Street  
New Orleans, LA 70112


November 14, 1990

Enclosed is construction permit No. AC 17-167679 to construct a molten sulfur storage and handling system at Sulfur Terminals Company, Inc. in Pensacola, Escambia County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
for J. H. Fancy, P.E.  
Chief

Bureau of Air Regulation

Copy furnished to:

Jack Preece, NW Dist.  
John B. Koogler, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of buisness on 11-15-90.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(9), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

Kerin Deben  
Clerk

11-15-90  
Date

Final Determination

Sulfur Terminals Company, Inc.  
Port Pensacola  
Pensacola, Escambia County, Florida

Molten Sulfur Storage and Handling System

Permit No. AC 17-167679

Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation

November 9, 1990

## Final Determination

The Technical Evaluation and Preliminary Determination for the permit to construct a molten sulfur storage and handling system at Sulfur Terminals Company, Inc. in Pensacola, Escambia County, Florida, was distributed on July 2, 1990. The Notice of Intent to Issue was published in Pensacola News Journal on October 9, 1990. Copies of the evaluation were available for public inspection at the Department's Northwest District office in Pensacola and Bureau of Air Regulation office in Tallahassee.

No comments were submitted on the Department's Intent to Issue the permit. The final action of the Department will be to issue construction permit No. AC 17-167679 as proposed in the Technical Evaluation and Preliminary Determination.



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**

Sulfur Terminals Company, Inc.  
835 Union Street,  
New Orleans, LA 70112

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

County: Escambia

Latitude/Longitude: 30°24'08"N  
87°12'30"W

Project: Port Pensacola Terminal/  
Molten Sulfur Storage & Handling  
Facility

This Permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For an after-the-fact construction permit for molten sulfur storage and handling facility consisting of a storage tank with a capacity of of 10,000 long tons, three truck unloading stations, and a ship unloading facility. Emissions from this facility are controlled by limiting the throughput to  $2.0 \times 10^6$  long tons of molten sulfur per year, and through proper operation and maintenance practices.

The facility is located in Port Pensacola, and the UTM coordinates are Zone 16, 480.0 km East and 3363.2 km North.

The source was constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Sulfur Terminals Company's (STC) application received July 20, 1989.
2. DER's letter dated August 18, 1989.
3. STC's response received September 29, 1989.
4. DER's letter dated October 26, 1989.
5. STC's response received April 23, 1990.

PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

GENERAL CONDITIONS:

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.



PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and

**PERMITTEE:**

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

**GENERAL CONDITIONS:**

records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS:**

1. Sulfur Terminals Company's molten sulfur storage and handling terminal shall be allowed to operate continuously (i.e. 8760 hrs/yr).

2. The maximum molten sulfur throughput shall neither exceed 5480 long tons per day, nor  $2.0 \times 10^6$  long tons per year.

3. Visible emissions (VE) shall not exceed 10% opacity from any loading/unloading/storage operations from this facility, except during periods of ship loading when VE shall not exceed 15% opacity.

4. No objectionable odors will be allowed in accordance with F.A.C. Rule 17-2.620(2).

5. The permittee shall employ proper operation and maintenance procedures to control emissions from the molten sulfur handling facilities subject to Rule 17-2.600(11) of the Florida Administrative Code.

PERMITTEE: Sulfur Terminals Company, Inc. Permit Number: AC 17-167679  
 Expiration Date: March 31, 1991

**SPECIFIC CONDITIONS:**

6. Initial compliance tests shall be conducted before December 31, 1990, in accordance with the July 1, 1988, version of 40 CFR 60, Appendix A, using EPA Method 9, for visible emissions. Such tests shall be conducted for a minimum duration of thirty (30) minutes at each vent of storage tank, each storage tank, each truck and ship loadout, during molten sulfur loading/unloading/storage operations. VE tests shall be conducted annually if required by the Northwest District office at the time of issuing or renewing operation permits.

7. Any change in the method of operation, equipment, or operating hours shall be submitted to the Bureau of Air Regulation and the NW District office for approval.

8. For emission inventory and PSD purposes, the estimated maximum emissions from the ship loading, storage tank (during filling and non-filling), and 3 truck loadouts for molten sulfur storage and handling system are:

Contaminant	Storage Tank		Barge		(3) Truck Loadouts		Total Facility Emissions	
	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr
Molten Sulfur								
SP	1.62	7.02	0.28	0.35	No emissions since unloading operation is completely sealed.		1:90	7.37
PM <sub>10</sub>	3.46	14.98	0.60	0.75		4.06	15.73	
TP	3.92	16.97	0.68	0.85		4.6	17.82	
VOC	4.82	20.86	0.84	1.05		5.66	21.91	
SO <sub>2</sub>	0.51	2.20	0.09	0.11		0.60	2.31	
H <sub>2</sub> S	1.71	7.40	1.46	1.83		3.17	9.23	

9. The NW District office shall be given written notice at least 15 days prior to compliance testing. The compliance test results shall be submitted to the NW District office within 45 days of such testing.

10. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

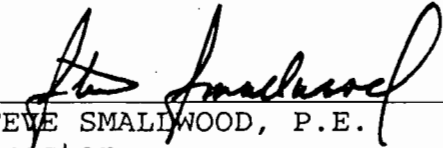
Expiration Date: March 31, 1991

SPECIFIC CONDITIONS:

11. An application for an operation permit must be submitted to the Northwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this 13<sup>th</sup> day  
of November, 1990

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
\_\_\_\_\_  
STEVE SMALLWOOD, P.E.  
Director  
Division of Air Resources  
Management



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

# Interoffice Memorandum

TO: Steve Smallwood  
FROM: Clair Fancy *CAF*  
DATE: November 9, 1990  
SUBJ: Approval of Construction Permit No. AC 17-167679  
Sulfur Terminals Company, Inc.

Attached for your approval and signature is a permit prepared by the Bureau of Air Regulation for the above mentioned company to construct a molten sulfur storage and handling system at Sulfur Terminals Company, Inc. in Pensacola, Escambia County, Florida.

No comments were received during the public notice period.

Day 90, after which this permit will be issued by default, is November 16, 1990.

I recommend your approval and signature.

CF/MB/plm

Attachments

Check Sheet

Company Name: Sulphur Terminals Co.  
Permit Number: AC 17-167679  
PSD Number: \_\_\_\_\_  
Permit Engineer: \_\_\_\_\_

**Application:**

- |  |                          |
|--|--------------------------|
| <input checked="" type="checkbox"/> Initial Application    | Cross References:        |
| <input checked="" type="checkbox"/> Incompleteness Letters | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Responses              | <input type="checkbox"/> |
| <input type="checkbox"/> Waiver of Department Action       | <input type="checkbox"/> |
| <input type="checkbox"/> Department Response               |                          |
| <input type="checkbox"/> Other                             |                          |

**Intent:**

- Intent to Issue
  - Notice of Intent to Issue
  - Technical Evaluation
  - BACT or LAER Determination
  - Unsigned Permit
- Correspondence with:
- EPA
  - Park Services
  - Other
- Proof of Publication
  - Petitions - (Related to extensions, hearings, etc.)
  - Waiver of Department Action
  - Other

**Final**

**Determination:**

- Final Determination
- Signed Permit
- BACT or LAER Determination
- Other

**Post Permit Correspondence:**

- Extensions/Amendments/Modifications
- Other



# W. GRADY SWANN, INC.

3814 West Jackson St. • Pensacola, Florida 32505  
(904) 432-5766 • Fax (904) 469-0335 • Panama City (904) 747-7030 • Mobile (334) 433-7171

---

December 13, 1995

**RECEIVED**

DEC 19 1995

BUREAU OF  
AIR REGULATION

N S P S Coordinator  
Bureau of Air Regulation  
Department of Environmental Protection  
2600 Blair Stone Rd.  
Tallahassee, Florida 32301-8241

re: Pensacola Terminals, Inc.  
3088 Barrancas Ave.  
Pensacola, Florida 32507

Dear Sirs:

Pensacola Terminals, Inc. is in the process of installing an internal floating roof (IFR) in an existing petroleum (gasoline) storage tank. The IFR volatile emissions control system is being retrofitted to tank #201, a 20,000 bbl storage tank.

In accordance with 40 CFR 60 Kb, Standards of Performance for Volatile Liquid Storage Vessels (including petroleum liquid storage vessels), 30 day notification is given for pre filling inspection of the IFR system

If you have any questions, please call me at (904) 432-5766.

Sincerely yours,

J. M. Kapinos  
Environmental Engineer

cc: Mr. Ed Gray, Pensacola Terminals, Inc.  
FDEP Northwest District Office



**FREEPORT-McMoRAN**  
Global Resource Companies

Freeport-McMoRan Inc.  
1615 Poydras Street  
New Orleans, LA 70112  
P.O. Box 61119  
New Orleans, LA 70161

Russell G. Olivier  
Manager of Sulphur Environmental and Safety  
Telephone: 504-582-4757  
Fax: 504-582-1810

October 15, 1990

**Certified Mail - Return Receipt Requested**

Mr. Mirza Baig  
Air Quality Division  
Florida Dept. of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RECEIVED

OCT 18 1990

DER-BAQM

**RE: Proposed Air Permit for  
Sulphur Terminals Co., Inc.  
Pensacola Terminal  
Escambia County**

Dear Mr. Baig:

In follow-up to our recent telephone conversation, attached is proof of publication of the "Notice of Intent to Issue" for the subject permit.

Please advise if additional information is needed concerning this subject.

Sincerely,

*R. G. Olivier*

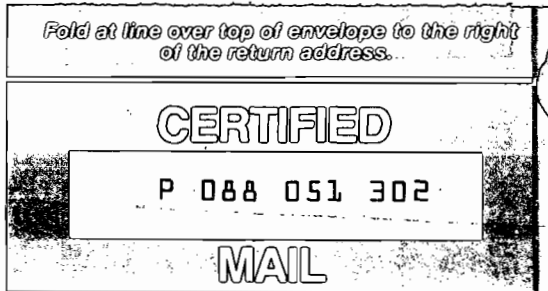
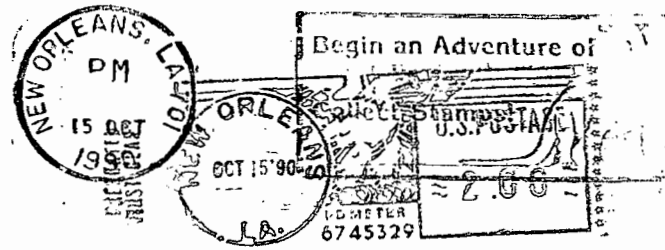
RGO:rrw  
Attachment

cc: with attach. - Mr. Barry Andrews (Bureau of Air Reg.)  
- Mr. John Moon - Canal Barge  
- Mr. Al Speer - Sulphur Terminals Co.





Freeport-McMoRan Inc.  
 1615 Poydras Street  
 P.O. Box 61119  
 New Orleans, LA 70161



MR. MIRZA BAIG  
 AIR QUALITY DIVISION  
 FLORIDA DEPT. OF ENVIRONMENTAL REGULATION  
 2600 BLAIR STONE ROAD  
 TALLAHASSEE, FL 32399 2400



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TRAVEL AGENT

Datas. II, experience preferred. Immediate opening, full time. Leisure Travel Agent. Experience required. South Fla. Agency, 1-800-868-3505

37 PROFESSIONAL

ACCOUNTANT Local CPA firm 2-5 yrs. exp needed. Degree in accounting necessary, apply P.O. BOX 927 Pensacola, FL 32594.

LEGAL NOTICE

State of Florida Department of Environmental Regulation Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue an after-the-fact construction permit to Sulfur Terminals Co., Inc., 835 Union Street, New Orleans, LA 70112 for the existing storage tank with a capacity of 10,000 LT, three truck unloading stations and a ship unloading facility, located in Port Pensacola, Escambia County, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida

32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The petition shall contain the following information: a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the po-

sition taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except for legal holidays, at:

Department of Environmental Regulation Bureau of Air Regulation 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Department of Environmental Regulation Northwest District Office 160 Governmental Center Pensacola, Florida 32501-5794

Any person may send in written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Legal No. 38473 1T Oct. 9, 1990

P 256 396 145  
**RECEIPT FOR CERTIFIED MAIL**  
 NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
 Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address.    2.  Restricted Delivery (Extra charge)

3. Article Addressed to:  
 John W Moon, Jr. Vice Pres.  
 Sulfur Terminals Co., Inc.  
 835 Union St.  
 New Orleans, LA 70112

4. Article Number  
 P 256 396 109

Type of Service:  
 Registered     Insured  
 Certified     COD  
 Express Mail     Return Receipt for Merchandise

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Address  
 X *[Signature]*

6. Signature - Agent  
 X

7. Date of Delivery  
 7-02-90

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1988 \* U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

\* U.S.G.P.O. 1989-234-555

PS Form 3800, June 1985

Sent to Mr. John W. Moon, V.P.	
Sulfur Terminals Co., Inc.	
835 Union Street	
New Orleans, LA 70112	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date mailed: 7/3/90 AC 17-167679	



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

July 2, 1990

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. John W. Moon, Jr., Vice President  
Sulfur Terminals Co., Inc.  
835 Union Street  
New Orleans, LA 70112

Dear Mr. Moon:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed after-the-fact construction permit for Sulfur Terminals Company, Inc. for molten sulfur storage tanks and handling system at the Port of Pensacola facility in Escambia County, Florida.

Please publish the attached "Notice of Intent to Issue" in the legal ad section of a newspaper of general circulation in the area affected and submit the proof of publication to the Department within seven days of publication, along with any written comments you wish to have considered concerning the Department's proposed action, to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

*James K. Pennington*  
for C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation

CHF/MB/plm

Attachments

c: J. Preece, NW Dist.  
John B. Koogler, P.E.

Reading File }  
Mirza Baig } 7-3-90 RRM  
CHF/BA

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of  
Application for Permit by:

Sulfur Terminals Co., Inc.  
835 Union Street  
New Orleans, LA 70112

DER File No. AC 17-167679

---

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Sulfur Terminals Company, Inc., applied on July 7, 1989, to the Department of Environmental Regulation for an after-the-fact construction permit for the existing storage tank with a capacity of 10,000 LT, three truck unloading stations and a ship unloading facility to receive and distribute molten sulfur. The annual throughput at this facility is  $2.0 \times 10^6$  LT. The storage tank has eight perimeters and one center vent.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and


(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such

person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
for James K. Pennington  
C. H. Fancy, P.E.  
Chief  
Bureau of Air Regulation

Copies furnished to:

J. Preece, NW Dist.  
John B. Koogler, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 7-3-90.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(9), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

Keri Jaber  
Clerk

7-3-90  
Date



State of Florida  
Department of Environmental Regulation  
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue an after-the-fact construction permit to Sulfur Terminals Co., Inc., 835 Union Street, New Orleans, LA 70112 for the existing storage tank with a capacity of 10,000 LT, three truck unloading stations and a ship unloading facility, located in Port Pensacola, Escambia County, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Department of Environmental Regulation  
Northwest District Office  
160 Governmental Center  
Pensacola, Florida 32501-5794

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation  
and  
Preliminary Determination

Sulfur Terminals Company, Inc.  
Port Pensacola  
Pensacola, Escambia County, Florida

Molten Sulfur Storage and Handling System

Permit No. AC 17-167679

Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation

July 2, 1990

## I. Application

### A. Applicant

Sulfur Terminals Company, Inc.  
835 Union Street  
New Orleans, LA 70112

### B. Project and Location

Sulfur Terminals Company, Inc. has applied for an after-the-fact construction permit application for the existing storage tank for molten sulfur storage and handling system in Pensacola (Port Pensacola), Escambia County, Florida.

### C. Facility Category

The SIC Code is 5169 and the SCC Code is 3-01-070-02. Sulfur Terminals Company, Inc. applied for a construction permit on July 20, 1989 and was deemed complete on April 23, 1990.

## II. Project Description

The Sulfur Terminals Company, Inc. terminal consists of a ship unloading system; three truck unloading systems; one storage tank with a capacity of 10,000 long tons, to store molten sulfur; and the associated transfer pumps and pipings. The Sulfur Terminals Company, Inc. terminal currently receives molten sulfur by trucks for storage and ships it to customers via barges.

The molten sulfur is delivered to the facility by trucks with a capacity of about 24,000 LT, each truck. On an average they receive about 40 truck loads of molten sulfur a day and a maximum of 90 truckloads a day. The molten sulfur is only unloaded to storage tank at the truck unloading stations. From the storage tank, the molten sulfur is pumped to the barge at a rate of 800 tons/hr. The average barge loadout is about 5000 long tons/day. When molten sulfur is stored in the tank it has to be steam heated.

The storage tank has a capacity of 10,000 long tons, and is well insulated. Each tank has 8 perimeter vents (0.83 ft. in diameter) and 1 center vent (2.5 ft. in diameter). The maximum annual throughput is 2.0 million long tons of molten sulfur. During the molten sulfur storing and transfer operations, all nine vents may be opened. There are three truck loadout stations and a ship loading facility at this terminal.

## III. Rule Applicability

The existing Sulfur Terminals Company, Inc. facility is minor in accordance with Rule 17-2.100. The molten sulfur storage and handling system will emit sulfur particulate matter and will be permitted in accordance with F.A.C. Rules 17-2 and 17-4; and Chapter 403 of the Florida Administrative Codes.

The facility is located in Port Pensacola, in Escambia County, an area designated as attainment for ozone, particulate matter, sulfur dioxide, and other criteria pollutants; in accordance with F.A.C. Rules 17-2.410, 17-2.430 and 17-2.420, respectively.

The project is not subject to the new source review requirements of F.A.C. Rule 17-2.500(5), Prevention of Significant Deterioration-Preconstruction Review Requirements, or F.A.C. Rule 17-2.510(4), Nonattainment Area Review, because it is minor.

The project is subject to F.A.C. Rule 17-2.520, Sources Not Subject to PSD or Nonattainment Requirements.

The project is subject to F.A.C. Rule 17-2.600(11), Specific Emission Limiting and Performance Standards for Sulfur Storage and Handling Facilities, which lists specific operational emission reduction procedures that are to be followed. Visible Emissions (VE) will be limited to 10% opacity, except during periods of ship unloading when VE shall not exceed 15% opacity. The sources are not subject to a weight emission limiting standard, in accordance with F.A.C. Rule 17-2.600(11)(3), since the sulfur particulate emissions from each individual source are less than 25 tons per year.

The project is subject to F.A.C. Rule 17-2.620, General Pollutant Emission Limiting Standards, which prohibits objectionable odors.

The project is subject to compliance testing and reporting requirements in accordance with F.A.C. Rule 17-2.700. Compliance testing for the sources shall be conducted using EPA Method 9 for visible emissions in accordance with F.A.C. Rule 17-2.700(6)(b)9. VE tests will be required to be conducted for every point in the storage and handling system (every vent, truck/ship loading or transferring) for the initial compliance demonstration. The Department may require a retest annually.

#### IV. Source Impact Analysis

##### A. Emission Limitations

At this molten sulfur storage and handling facility, the maximum hourly and annual emission estimates of SP, PM<sub>10</sub>, VOC, H<sub>2</sub>S, SO<sub>2</sub>, and TP are summarized below.

Contaminant	Storage Tank		Barge		(3) Truck Unloading		Total Facility Emissions	
	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr
Molten Sulfur								
SP	1.62	7.02	0.28	0.35	No emissions since unloading operation is completely sealed.		1.90	7.37
PM <sub>10</sub>	3.46	14.98	0.60	0.75			4.06	15.73
TP	3.92	16.97	0.68	0.85			4.6	17.82
VOC	4.82	20.86	0.84	1.05			5.66	21.91
SO <sub>2</sub>	0.51	2.20	0.09	0.11			0.60	2.31
H <sub>2</sub> S	1.71	7.40	1.46	1.83			3.17	9.23

The ship's emissions during ship unloading are expected to be temporary and negligible.

Visible emissions (VE) will be limited to 10% opacity during all loading/unloading operations, except 15% opacity during periods of ship unloading.

#### B. Air Quality Impacts

The Technical Evaluation of this project determined that ambient air monitoring or modelling would not be required to provide reasonable assurance that the Florida's air quality standards would not be violated.

#### V. Conclusion

Based on the information provided by Sulfur Terminals Company, Inc., the Department has reasonable assurance that the existing storage tanks and handling terminal, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

**PERMITTEE:**

Sulfur Terminals Company, Inc.  
835 Union Street  
New Orleans, LA 70112

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

County: Escambia

Latitude/Longitude: 30°24'08"N  
87°12'30"W

Project: Port Pensacola Terminal/  
Molten Sulfur Storage & Handling  
Facility

This Permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For an after-the-fact construction permit for molten sulfur storage and handling facility consisting of a storage tank with a capacity of of 10,000 long tons, three truck unloading stations, and a ship unloading facility. Emissions from this facility are controlled by limiting the throughput to  $2.0 \times 10^6$  long tons of molten sulfur per year, and through proper operation and maintenance practices.

The facility is located in Port Pensacola, and the UTM coordinates are Zone 16, 480.0 km East and 3363.2 km North.

The source was constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Sulfur Terminals Company's (STC) application received July 20, 1989.
2. DER's letter dated August 18, 1989.
3. STC's response received September 29, 1989.
4. DER's letter dated October 26, 1989.
5. STC's response received April 23, 1990.

PERMITTEE: Sulfur Terminals Company, Inc. Permit Number: AC 17-167679  
Expiration Date: March 31, 1991

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.



PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

**GENERAL CONDITIONS:**

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

**GENERAL CONDITIONS:**

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and

PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

**GENERAL CONDITIONS:**

records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS:**

1. Sulfur Terminals Company's molten sulfur storage and handling terminal shall be allowed to operate continuously (i.e. 8760 hrs/yr).

2. The maximum molten sulfur throughput shall neither exceed 5480 long tons per day, nor  $2.0 \times 10^6$  long tons per year.

3. Visible emissions (VE) shall not exceed 10% opacity from any loading/unloading/storage operations from this facility, except during periods of ship loading when VE shall not exceed 15% opacity.

4. No objectionable odors will be allowed in accordance with F.A.C. Rule 17-2.620(2).

5. The permittee shall employ proper operation and maintenance procedures to control emissions from the molten sulfur handling facilities subject to Rule 17-2.600(11) and Chapter 17-4 of the Florida Administrative Code.

PERMITTEE:

Sulfur Terminals Company, Inc.

Permit Number: AC 17-167679

Expiration Date: March 31, 1991

SPECIFIC CONDITIONS:

6. Initial compliance tests shall be conducted before December 31, 1990, in accordance with the July 1, 1988, version of 40 CFR 60, Appendix A, using EPA Method 9, for visible emissions. Such tests shall be conducted for a minimum duration of thirty (30) minutes at each vent of storage tank, each storage tank, each truck and ship loadout, during molten sulfur loading/unloading/storage operations. VE tests shall be conducted annually if required by the Northwest District office at the time of issuing or renewing operation permits.

7. Any change in the method of operation, equipment, or operating hours shall be submitted to the NW District office for approval.

8. For emission inventory and PSD purposes, the estimated maximum emissions from the ship loading, storage tank (during filling and non-filling), and 3 truck loadouts for molten sulfur storage and handling system are:

Contaminant	Storage Tank		Barge		(3) Truck Loadouts		Total Facility Emissions	
	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr
Molten Sulfur								
SP	1.62	7.02	0.28	0.35	No emissions since unloading operation is completely sealed.		1.90	7.37
PM <sub>10</sub>	3.46	14.98	0.60	0.75			4.06	15.73
TP	3.92	16.97	0.68	0.85			4.6	17.82
VOC	4.82	20.86	0.84	1.05			5.66	21.91
SO <sub>2</sub>	0.51	2.20	0.09	0.11			0.60	2.31
H <sub>2</sub> S	1.71	7.40	1.46	1.83			3.17	9.23

9. The NW District office shall be given written notice at least 15 days prior to compliance testing. The compliance test results shall be submitted to the NW District office within 45 days of such testing.

10. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

PERMITTEE: Sulfur Terminals Company, Inc. Permit Number: AC 17-167679  
Expiration Date: March 31, 1991

**SPECIFIC CONDITIONS:**

11. An application for an operation permit must be submitted to the Northwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this \_\_\_\_\_ day  
of \_\_\_\_\_, 1990

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

---

STEVE SMALLWOOD, P.E.  
Director  
Division of Air Resources  
Management

RECEIVED

APR 23 1990

**PEEPLES, EARL & BLANK**

PROFESSIONAL ASSOCIATION  
ATTORNEYS AT LAW  
1800 2ND STREET  
SUITE 888  
SARASOTA, FLORIDA 34236  
TELEPHONE (813) 366-1180  
TELEFAX (813) 366-1183

**DER-BAQM**  
MIAMI OFFICE

ONE BISCAYNE TOWER, SUITE 3636  
TWO SOUTH BISCAYNE BOULEVARD  
MIAMI, FLORIDA 33131  
(305) 358-3000  
FAX (305) 358-5079

JUDITH S. KAVANAUGH

REPLY TO:

Sarasota

April 17, 1990

Mr. Pradeep Raval  
Air Resources Management  
Department of Environmental Resources  
2600 Blair Stone Road  
Tallahassee, Florida 34399-2400

Re: Sulphur Terminals Company, Inc.: Pensacola Facility  
Permit Application No. AC-17-167679

Sulphur Terminals Company, Inc.: Tampa Facility  
Permit Application No. AC-29-168895

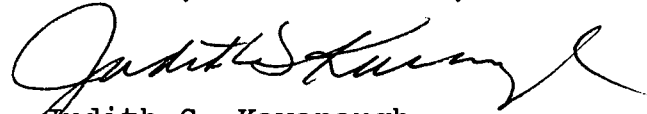
Dear Pradeep:

Attached please find executed and sealed Certificates Of Engineer with regard to the above-referenced Permit Applications. As you can see, Dr. Koogler has also corrected the locational references in each Permit Application.

I hope this will complete the application for the above-referenced facilities, and if any further information is required to complete the processing of the applications, please let me know.

Sincerely,

PEEPLES, EARL & BLANK, P.A.

  
Judith S. Kavanaugh  
For The Firm

JSK/gc

Enclosures

*cc: E. Middlewert  
B. Thomas, SW Dist.  
J. Campbell, EPC HC*

RECEIVED

ENGINEERING REVIEW OF AIR POLLUTION SOURCE  
CONSTRUCTION PERMIT APPLICATION FOR THE  
SULPHUR TERMINALS COMPANY, INC.  
Pensacola, Florida

MAR 23 1990

PEEPLES, EARL & BLANK  
SARASOTA

Rule 17-4.05(3),FAC requires that applications and supporting plans and calculations for an air pollution source construction permit be reviewed by a Professional Engineer registered in the State of Florida. The air pollution source construction permit application for Sulphur Terminals Company, Inc., located in Pensacola, Florida, has been reviewed.

The location of the facility, as identified on page 1 of 12 of the permit application, should read:

UTM: East - (16) 480.0 km

North - 3363.2 km

Latitude: 30° 24' 08" N

Longitude: 87° 12' 30" W

This is to certify that with the changes noted above, the engineering features and calculations contained in this air permit application have been examined by me and found to be in conformity with modern engineering principles applicable to the characterization of air pollutants addressed in the permit application. There is reasonable assurance, in my professional judgment, that the air pollution sources described in the application, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish, if authorized by the owner and required by the Department, a set of instructions for the proper maintenance and operation of the pollution sources.

Signed \_\_\_\_\_

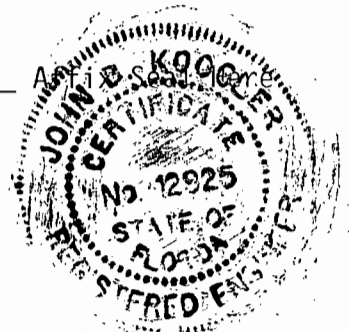
Date: 3/21/90 Telephone No (904) 377-5822

John B. Koogler  
Name

Koogler & Associates  
Company Name

4014 N.W. 13th Street Gainesville, FL 32609  
Mailing Address

Florida Registration No. 12925



ENGINEERING REVIEW OF AIR POLLUTION SOURCE  
CONSTRUCTION PERMIT APPLICATION FOR THE  
SULPHUR TERMINALS COMPANY, INC.  
Pensacola, Florida

Rule 17-4.05(3), FAC requires that applications and supporting plans and calculations for an air pollution source construction permit be reviewed by a Professional Engineer registered in the State of Florida. The air pollution source construction permit application for Sulphur Terminals Company, Inc., located in Pensacola, Florida, has been reviewed.

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UTM: East - (16) 480.0 km

North - 3363.2 km

Latitude: 30° 24' 08" N

Longitude: 87° 12' 30" W

This is to certify that with the changes noted above, the engineering features and calculations contained in this air permit application have been examined by me and found to be in conformity with modern engineering principles applicable to the characterization of air pollutants addressed in the permit application. There is reasonable assurance, in my professional judgment, that the air pollution sources described in the application, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish, if authorized by the owner and required by the Department, a set of instructions for the proper maintenance and operation of the pollution sources.

Signed \_\_\_\_\_

Date: 3/2/90 Telephone No. (904) 377-5822

John B. Koogler

Name

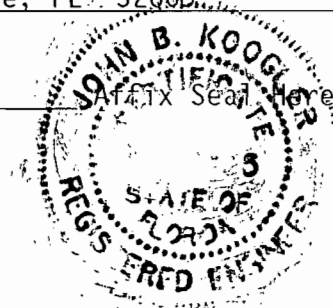
Koogler & Associates

Company Name

4014 N.W. 13th Street Gainesville, FL 32609

Mailing Address

Florida Registration No. 12925





**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.  
 Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address.    2.  Restricted Delivery (Extra charge)

3. Article Addressed to: Mr. J. W. Moon, Jr. Sulphur Terminals Company 835 Union Street New Orleans, LA 70112	4. Article Number P 938 762 725  Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature Address <input checked="" type="checkbox"/>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature Agent <input checked="" type="checkbox"/>	
7. Date of Delivery 10-30-89	

PS Form 3811, Mar. 1988    \* U.S.G.P.O. 1988-212-865    DOMESTIC RETURN RECEIPT

P 938 762 725

**RECEIPT FOR CERTIFIED MAIL**  
 NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

Sent to	
Mr. J. W. Moon, Jr., Sulphur	
Street and No.	
835 Union Street Terminals	
P.O., State and ZIP Code	
New Orleans, LA 70112	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	
Permit: AC 17-167679	
Mailed: 10-26-89	

PS Form 3800, June 1985



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

October 26, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. J. W. Moon, Jr.  
Sulphur Terminals Company, Inc.  
835 Union Street  
New Orleans, LA 70112

Dear Mr. Moon:

Re: STI - Pensacola Sulfur Facility Permitting, AC 17-167679

The Department has received your responses dated September 25 and 29, 1989. Please complete Section 1.B., P.E. certification, for DER to be able to process your application.

If you have any questions please call Pradeep Raval at (904) 488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.  
Bureau of Air Regulation

CHF/PR

cc: E. Middleswart, NW District  
J. Kavanaugh; Peeples, Earl and Blank

# PEEPLES, EARL & BLANK

PROFESSIONAL ASSOCIATION  
ATTORNEYS AT LAW  
1800 2<sup>ND</sup> STREET  
SUITE 888  
SARASOTA, FLORIDA 34236  
TELEPHONE (813) 366-1180  
TELEFAX (813) 366-1183

MIAMI OFFICE  
ONE BISCAYNE TOWER, SUITE 3636  
TWO SOUTH BISCAYNE BOULEVARD  
MIAMI, FLORIDA 33131  
(305) 358-3000  
FAX (305) 358-5079

JUDITH S. KAVANAUGH

REPLY TO:  
**RECEIVED** Sarasota

OCT 2 1989

September 29, 1989

DER-BAQM

Claire H. Fancy, Deputy Chief  
Air Resource Management  
**FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION**  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**Re: Sulphur Terminals Company, Inc., Pensacola Facility - Sulphur  
Facility Permitting, #AC 17-167679**

Dear Mr. Fancy:


This letter is written on behalf of Sulphur Terminals Co., Inc., ("STI"), a client of this office to correct a clerical error in its response to your request for additional information regarding the above-described air permit. The corrected response is as follows:

**DER Request No. 4: Provide the physical dimensions of the sources (tanks and pits) in the sulphur facility?**

The sulphur tank at the STI Pensacola facility is 40'3" high and 81' in diameter.

If I can be of any further assistance to you or your staff, please do not hesitate to contact me, I remain

Sincerely,  
PEEPLES, EARL & BLANK, P.A.

  
Judith S. Kavanaugh  
For the Firm

JSK/jcs

cc: Pradeep Raval  
Sulphur Terminals Co., Inc.

*J. Peelle, NW Dist*  
*CHP/13T*

**PEEPLES, EARL & BLANK**

ATTORNEYS AT LAW

1800 2ND STREET

SUITE 888

SARASOTA, FLORIDA 34236



Claire H. Fancy, Deputy Chief  
Air Resource Management  
**FLORIDA DEPARTMENT OF ENVIRONMENTAL  
REGULATION**  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

# PEEPLES, EARL & BLANK

PROFESSIONAL ASSOCIATION

ATTORNEYS AT LAW

1800 2<sup>ND</sup> STREET

SUITE 888

SARASOTA, FLORIDA 34236

TELEPHONE (813) 366-1180

TELEFAX (813) 366-1183

MIAMI OFFICE

ONE BISCAYNE TOWER, SUITE 3636

TWO SOUTH BISCAYNE BOULEVARD

MIAMI, FLORIDA 33131

(305) 358-3000

FAX (305) 358-5079

JUDITH S. KAVANAUGH

REPLY TO: Sarasota

September 25, 1989

RECEIVED  
SEP 29 1989  
DER-BAQM

Claire H. Fancy, Deputy Chief  
Air Resource Management  
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION  
2600 Blair Stone Road  
Tallahassee, Florida 34399-2400

Re: Sulphur Terminals Company, Inc., Pensacola Facility - Sulphur  
Facility Permitting, #AC 17-167679

Dear Mr. Fancy:

This letter is written on behalf of Sulphur Terminals Co., Inc., ("STI"), a client of this office to respond to your letter of August 18, 1989, requesting additional information to assist the Department in the processing of the air permit for STI's Pensacola sulphur facility. In response to your request for additional information STI submits the following:

**DER Request 1: Please describe the sulphur unloading procedures and the equipment involved with that operation?**

See Attachment "A"

**DER Request 2: What has been the maximum (permitted or actual) sulphur throughput at this facility? What was the molten sulphur throughput during two consecutive representative years in the last five (5) year period?**

The historical data with regard to sulphur throughput at this facility reflects that 0.3MM tons per year is the optimum representation throughput. These are estimates based on operational experience and available records and are believed by STI to be representative of a typical

Claire H. Fancy  
September 26, 1989  
Page 2

year of operation based on long operation experience. As the Department is aware, these facilities were not permitted because no permits were required until the adoption of the recent Sulphur Rule. This information is submitted as part of bringing these existing facilities within the regulatory framework established under that rule.

**DER Request 3: Please submit air emission estimates for any other source/equipment/process within (or associated with) the sulphur facility which has not yet been permitted by DER.**

There are no other sources, equipment or processes, other than those set out in the original permit application.

**DER Request 4: Provide the physical dimensions of the sources (tanks and pits) in the sulphur facility?**

The sulphur tank at the STI Pensacola facility is 400'3" high and 81' in diameter.

**DER Request 5: Please complete Section 1B, P.E. Requirement for the application you have submitted.**

As DER is aware, this facility is already constructed and uses no pollution control equipment. Thus the P.E. certification as to pollution control equipment or facilities is not applicable. STI is in the process of obtaining certification by a Florida P.E. certifying that the facility is constructed as represented in the permit application, and will provide that as soon as possible for purposes of emissions estimates.

Claire H. Fancy  
September 26, 1989  
Page 3

If you or your staff have any questions or any further information as required, please do not hesitate to contact me and I remain,

Sincerely,  
**PEEPLES, EARL & BLANK, P.A.**



Judith S. Kavanaugh  
For the Firm

JSK/jcs

cc: Mr. Pradeep Raval  
Sulphur Terminals, Inc.

*J. Trull*

**ATTACHMENT "A"**

**DRIVERS' INSTRUCTIONS - STI PENSACOLA FACILITY**

1. Hook Host Onto Truck.
2. Open Valve on Header, Then Valve on Truck.
3. Start Pumps.
4. Open Dome Lid.
5. When Empty, Close Truck Valve, Drain Hose, Then Close Header Valve.
6. Close Dome Lid.



P 938 762 654

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

- 1:  Show to whom delivered, date, and addressee's address. (Extra charge)
- 2:  Restricted Delivery (Extra charge)

<b>3. Article Addressed to:</b> Mr. J. W. Moon, Jr. Sulphur Terminals Company, Inc. 835 Union Street New Orleans, LA 70112	<b>4. Article Number</b> P 938 762 654  <b>Type of Service:</b> <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise  Always obtain signature of addressee or agent and <b>DATE DELIVERED</b> .
<b>5. Signature - Address</b> X <i>[Signature]</i>	<b>8. Addressee's Address (ONLY if requested and fee paid)</b>
<b>6. Signature - Agent</b> X	
<b>7. Date of Delivery</b> 8/21/89	

Sent to Mr. J. W. Moon, Jr., Sulphur	
Street and No. Terminals, Inc. 835 Union St.	
P.O. State and ZIP Code New Orleans, LA 70112	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 8-18-89 Permit: AC 17-167679	

PS Form 3800, June 1985



# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

August 18, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. J. W. Moon, Jr.  
Sulphur Terminals Company, Inc.  
835 Union Street  
New Orleans, LA 70112

Dear Mr. Moon:

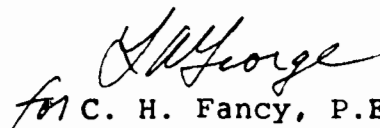
Re: STI - Pensacola Sulfur Facility Permitting, AC 17-167679

The Department has received your application dated July 20, 1989, and deemed it incomplete. Please submit the following information including all assumptions, calculations and reference material:

1. Please describe the sulfur unloading procedures and the equipment involved with that operation.
2. What has been the maximum (permitted or actual) sulfur throughput at this facility? What was the molten sulfur throughput during two consecutive representative years in the last five year period?
3. Please submit air emission estimates for any other source/equipment/process within (or associated with) the sulfur facility which has not yet been permitted by DER.
4. Provide the physical dimensions of the sources (tanks and pits) in the sulfur facility.
5. Please complete Section 1.B., P.E. requirement, for the application you have submitted.

If you have any questions please call Pradeep Raval at (904) 488-1344 or write to me at the above address.

Sincerely,



C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality  
Management

CHF/PR

cc: E. Middleswart, NW District  
J. Kavanaugh; Peeples, Earl and Blank

**PEEPLS, EARL & BLANK**

PROFESSIONAL ASSOCIATION  
ATTORNEYS AT LAW

WILLIAM L. EARL  
ROBERT H. BLANK  
JUDITH S. KAVANAUGH  
DENNIS M. STOTTS  
THOMAS T. ANKERSEN  
TIMOTHY H. CRUTCHFIELD  
LAWRENCE E. MARGOLIS  
KATHLEEN D. KIRWIN

L. GRANT PEEPLES  
OF COUNSEL

RECEIVED  
DER - MAIL ROOM

1989 JUL 20 10:44  
1800 2ND STREET  
SUITE 888  
SARASOTA, FLORIDA 34236  
TELEPHONE (813) 366-1180  
TELEFAX (813) 366-1183

1800 2ND STREET  
SUITE 888  
SARASOTA, FLORIDA 34236  
TELEPHONE (813) 366-1180  
TELEFAX (813) 366-1183

July 19, 1989

RECEIVED

JUL 20 1989 SARASOTA

DER-BAQM

Mr. Pradeep Raval  
Air Resources Management  
Department of Environmental Resources  
2600 Blair Stone Road  
Tallahassee, Florida 34399-2400

**RE: Sulphur Terminals Company, Inc., Bulk Liquid Sulphur Terminal;  
Pensacola, Florida**

Dear Mr. Raval:

Enclosed please find an original and three (3) copies of a permit application package for the above-described facility. The permit application is submitted on behalf of Sulphur Terminals Company, Inc., as requested by the Department of Environmental Regulation. A check in the amount of \$200.00 is also enclosed for the permit application fee as required by Chapter 17-4, Florida Administrative Code.

If there are any questions, or any additional information is needed, please contact me. Sulphur Terminals Company, Inc. appreciates the Department's efforts and cooperation in accomplishing the permitting of its facilities pursuant to the sulphur rule.

Sincerely,

**PEEPLS, EARL AND BLANK, P.A.**

*J. S. K.*  
Judith S. Kavanaugh  
For the Firm

JSK/jcs  
Enc.

cc: Sulphur Terminals, Inc.

1031

**PEEPLES, EARL & BLANK, P.A.**  
OFFICE ACCOUNT  
TWO SOUTH BISCAYNE BLVD.  
3636 ONE BISCAYNE TOWER  
MIAMI, FLORIDA 33131-1853

NCNB-NATIONAL BANK OF FLORIDA  
MAIN OFFICE  
MIAMI, FLORIDA 33131  
63-1121/660

0009708

Check No.

July 18, 1989 \$200.00  
DATE AMOUNT

**PAY** \*\*\*Two Hundred Dollars and no/100\*\*\*  
TO THE  
ORDER OF Florida Department of Environmental  
Regulation

PEEPLES, EARL & BLANK, P.A.  
OFFICE ACCOUNT

*R. H. Blank*



||

DEPARTMENT OF ENVIRONMENTAL REGULATION

\$200 pd.  
7-20-89  
Repts #117639

AC 17-167679



RECEIVED

BOB GRAHAM  
GOVERNOR  
VICTORIA J. TECHINKEL  
SECRETARY  
RICHARD D. GARRITY, PH.D.  
DISTRICT MANAGER

SOUTHWEST DISTRICT

7801 HIGHWAY 301 NORTH  
TAMPA, FLORIDA 33610-9844

JUL 20 1989

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES  
Molten Sulphur Storage

SOURCE TYPE: and Handling Facility [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

APPLICATION TYPE: [X] Construction [X] Operation [ ] Modification

COMPANY NAME: Sulphur Terminals Company, Inc. COUNTY: Escambia

Identify the specific emission point source(s) addressed in this application (i.e. Line  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) 1 Storage Tank, Truck Unloading, Ship Loading

SOURCE LOCATION: ~~XXXXX~~ Sulphur Terminals Company, Inc. City Pensacola, FL

UTM: East X-1, 146, 310 North Y 520, 530  
Latitude 30° 24' 36" Longitude 87° 12' 03"

APPLICANT NAME AND TITLE: Sulphur Terminals Company, Inc.

APPLICANT ADDRESS: 835 Union Street, New Orleans, LA 70112

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Sulphur Terminals Co., Inc.

I certify that the statements made in this application for a Air Construction/Operation permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: [Signature]  
John W. Moon, Jr. Vice-President Operations  
Name and Title (Please Type)

Date: \_\_\_\_\_ Telephone No. 504/581-2424

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

<sup>1</sup> See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed \_\_\_\_\_

\_\_\_\_\_  
Name (Please Type)

\_\_\_\_\_  
Company Name (Please Type)

\_\_\_\_\_  
Mailing Address (Please Type)

Florida Registration No. \_\_\_\_\_ Date: \_\_\_\_\_ Telephone No. \_\_\_\_\_

**SECTION II: GENERAL PROJECT INFORMATION**

- A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Attachment A and B

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Constructi N.A. Existing Source Completion of Construction N.A. Existing Source

- C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

N.A.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

\_\_\_\_\_  
\_\_\_\_\_

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. If this is a new source or major modification, answer the following questions. N.A.  
(Yes or No) Existing Minor Sources.

1. Is this source in a non-attainment area for a particular pollutant? \_\_\_\_\_
  - a. If yes, has "offset" been applied? \_\_\_\_\_
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_
  - c. If yes, list non-attainment pollutants. \_\_\_\_\_
2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. \_\_\_\_\_
3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. \_\_\_\_\_
4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? \_\_\_\_\_
5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? \_\_\_\_\_

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? No. Existing Minor Source. \_\_\_\_\_
- a. If yes, for what pollutants? \_\_\_\_\_
  - b. If yes, in addition to the information required in this form,  
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-  
cation for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

**A. Raw Materials and Chemicals Used in your Process, if applicable:**

SEE ATTACHMENTS A and B

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

Bulk liquid storage.

**B. Process Rate, if applicable: (See Section V, Item 1)** N.A. No process involved.

1. Total Process Input Rate (lbs/hr): \_\_\_\_\_
2. Product Weight (lbs/hr): \_\_\_\_\_

**C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)**

SEE ATTACHMENT B

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).



D. Control Devices: (See Section V, Item 4) N.A.

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basic for Efficiency (Section V Item 5)

E. Fuels N.A.

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units: Natural Gas--MCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average \_\_\_\_\_ Maximum \_\_\_\_\_ N.A.

G. Indicate liquid or solid wastes generated and method of disposal.

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H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ ft.  
 Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM Gas Exit Temperature: \_\_\_\_\_ °F.  
 Water Vapor Content: \_\_\_\_\_ % Velocity: \_\_\_\_\_ FPS

SECTION IV: INCINERATOR INFORMATION

N.A.

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lb/hr)							

Description of Waste \_\_\_\_\_  
 Total Weight Incinerated (lb/hr) \_\_\_\_\_ Design Capacity (lb/hr) \_\_\_\_\_  
 Approximate Number of Hours of Operation per day \_\_\_\_\_ day/wk \_\_\_\_\_ wks/yr. \_\_\_\_\_  
 Manufacturer \_\_\_\_\_  
 Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp. \_\_\_\_\_  
 Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity: \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: N.A.

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Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

N.A.

---

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NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

SEE ATTACHMENTS A - E

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY N.A.**

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:\*

4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Costs:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Heights:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:<sup>1</sup>

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:<sup>2</sup>

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant

Rate or Concentration


(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION N.A.

A. Company Monitored Data

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>\* \_\_\_\_\_ Wind spd/dir

Period of Monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

\*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?  
[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year

2. Surface data obtained from (location) \_\_\_\_\_

3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_

4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

1. \_\_\_\_\_ Modified? If yes, attach description.

2. \_\_\_\_\_ Modified? If yes, attach description.

3. \_\_\_\_\_ Modified? If yes, attach description.

4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicant's Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.



## PROJECT DESCRIPTION

The STI facility in Pensacola is a small existing bulk liquid sulphur storage and handling terminal, which has been operating since its construction over 10 years ago. The facility is located in Pensacola, Florida as indicated at Attachment C. The terminal facility consists of one (1) storage tank with appurtenant enclosed pipeline systems for offloading of the liquid sulphur from trucks into a tank, and loading liquid sulphur into barges and tank ships. The facility was designed and has been used since its construction for bulk liquid storage and handling of elemental sulphur. No processing or manufacturing of any type is conducted at the terminal.

Until 1985, there were no standards applicable to or permits required for the sulphur tank. In 1985, the Florida Environmental Regulation Commission adopted 17-2.600(11), which imposes new standards for sulphur storage and handling facilities. In November of 1988, the DER noticed the existing sulphur industry of the need to apply for permits under the new rule, and established a schedule for the permitting of the existing industry. This permit application is filed pursuant to DER's request that all existing facilities submit permit applications to demonstrate compliance with the sulphur rule.

POLLUTANT EMISSION ESTIMATES FOR THE  
SULPHUR TERMINALS COMPANY, INC. PENSACOLA  
BULK LIQUID SULFUR STORAGE FACILITY

Submitted on behalf of:  
SULPHUR TERMINALS COMPANY, INC.

May 18, 1989  
Ref. No. 51-2116-471

## 1. INTRODUCTION

On February 27, 1985, the Florida Environmental Regulation Commission adopted amendments to Chapter 17-2, Florida Administrative Code which regulates the storage and handling of elemental sulfur in the State of Florida. These amendments, known as the Sulfur Storage and Handling Rule (or "sulfur rule"), established new standards for liquid (molten) sulfur storage facilities. The Florida Department of Environmental Regulation (DER) is now in the process of implementing the sulfur rule through permitting of the existing liquid sulfur storage facilities.

This report summarizes the emission calculations in support of permit applications for the Sulphur Terminals Company, Inc. (STI) facility in Pensacola. This facility stores and handles molten elemental sulfur. Pertinent information on sulfur annual throughputs for this facility, as well as information on storage tank capacities and vent configurations, is contained in Table 1-1.

These emission calculations were primarily based on a series of monitoring studies carried out over the past four and one-half years at the STI and Pennzoil Tampa facilities<sup>(1), (2), (3)</sup>. The test results have been submitted to DER. In these studies storage tank ventilation rates and pollutant emission rates were measured over a range of meteorological conditions; storage tank capacities, liquid levels, and vent configurations; and sulfur product characteristics. This work included the development and testing of a sulfur-specific sampling procedure for accurate measurement of sulfur particulate emission rates at the STI Tampa terminal<sup>(3)</sup>. This alternate sampling method was necessary because of the unique conditions and tank design at the

STI Tampa facility which interfered with accurate measurements using standard reference methods. The sulfur-specific method was approved by DER in March, 1989.

Other pollutants measured in the STI Tampa sampling programs included total particulate, PM-10, VOC, SO<sub>2</sub>, and H<sub>2</sub>S. Total particulate concentrations in the STI vent gases were measured using DER Method 5. Concentrations of PM-10 were based on the measured total particulate concentrations and particle size distribution measurements (performed by microscopic analysis of filter samples, described in reference (1)) indicating PM-10 to be 88.18% of total particulate. U.S. EPA reference methods 18, 25, and 6 were applied for concentration measurements of H<sub>2</sub>S, VOC, and SO<sub>2</sub>, respectively.

The above vent flow and pollutant concentration measurements made at the STI and Pennzoil Tampa facilities are applicable to the STI Pensacola terminal. The vent configuration of the Pensacola storage tank consists of a center vent (similar to the Pennzoil tanks) and multiple perimeter vents (similar to the STI Tampa tanks). The sulfur stored at the Pensacola facility is the same as that stored at the STI Tampa facility, which suggests that the equilibrium pollutant concentrations measured at the STI Tampa facility will apply to the Pensacola facility.

The emission estimates for this facility are based on a maximum expected annual throughput and worst-case operating conditions, leading to upper limit estimates of maximum hourly and annual emissions.

TABLE 1-1:      FACILITY INFORMATION ON MOLTEN SULFUR STORAGE AND HANDLING AT THE STI PENSACOLA TERMINAL

Annual Throughput (LT)	No. of Storage Tanks	Storage Capacity Per Tank (LT)	No./Type of Vents Per Tank	Vent Diameter (ft)
$2.0 \times 10^6$	1	10,000	8 perimeter 1 center	0.83 2.5

2. EMISSION CALCULATIONS FOR THE SULPHUR TERMINALS COMPANY  
PENSACOLA FACILITY

Emissions of sulfur particulate (SP), PM-10, total particulate (TP), VOC, H<sub>2</sub>S, and SO<sub>2</sub> occur from the storage and handling of molten sulfur at this facility. There are two major types of emissions:

- 1) Emissions from one storage tank during filling and non-filling periods
- 2) Emissions from the barge during barge filling from the storage tank

2.1 BACKGROUND INFORMATION

2.1.1 Annual Throughput of Molten Sulfur

$2 \times 10^6$  LT/yr, maximum permitted throughput for facility

2.1.2 Sulfur Transfer Rates

2.1.2.1 Trucks to Storage Tank

Maximum of 291.6 LT/hr, based on the sulfur discharge from 4 trucks/hr at each of 3 unloading stations, each truck having a 24.3 LT capacity.

### 2.1.2.2 Storage Tank to Barge

800 LT/hr

### 2.1.3 Storage Tank Ventilation Rate

Estimated at 1455 acfm, based on storage tank ventilation rate measurements at the Freeport Sulphur Terminals Company, Inc. (STI) and the Pennzoil facilities in Tampa:

a) Outflow from the eight 10" diameter peripheral vents based on STI measurements for eight 10" diameter vents, i.e., 530 acfm. This includes 13 acfm for air purging of the tank.

b) Outflow from the 30" diameter center vent estimated from outflow measurements from Pennzoil 6" diameter vent, i.e., 37 acfm, increased by a factor of 25 to account for the increase in vent area, i.e.,  $25 (37) = 925$  acfm.

c) Total ventilation rate for Pensacola tank =  $530 + 925 = 1455$  acfm.

### 2.1.4 Concentrations of Pollutants in Vapor Space Above Molten Sulfur

Based on pollutant concentration measurements at the STI Tampa facility, the following pollutants are assumed to be at equilibrium (i.e., independent of tank ventilation rate):

Pollutant	Concentration (lb/ft <sup>3</sup> )
SP	$1.757 \times 10^{-5}$
PM-10	$3.750 \times 10^{-5}$

TP	$4.250 \times 10^{-5}$
VOC	$5.224 \times 10^{-5}$
SO <sub>2</sub>	$5.472 \times 10^{-6}$

Measurements have shown the H<sub>2</sub>S concentration in the vapor space inside a molten sulfur storage tank to be a function of tank ventilation rate, V (acfm), i.e.,

$$\text{H}_2\text{S (lb/ft}^3\text{)} = 1.719 \times 10^{-2} V^{-0.938}$$

At a tank ventilation rate of 1455 acfm, the H<sub>2</sub>S concentration is  $1.856 \times 10^{-5}$  lb/ft<sup>3</sup>.



## 2.2 EMISSION CALCULATIONS

### 2.2.1 Emissions from Storage Tanks During Filling

Period of storage tank filling:

$$(2.0 \times 10^6 \text{ LT/yr}) / (291.6 \text{ LT/hr}) = 6,859 \text{ hr/yr}$$

Rate of vapor displacement due to tank filling:

$$(291.6 \text{ LT/hr}) (2240 \text{ lb/LT}) / (112 \text{ lb S/ft}^3) = 5,832 \text{ ft}^3/\text{hr}$$

Total effective tank ventilation rate during filling:

$$5,832 + (1455-13) (60 \text{ min/hr}) = 92,352 \text{ ft}^3/\text{hr}$$

(there is no tank air purging during filling)

Maximum hourly emission rates during filling are computed as the total effective ventilation rate ( $\text{ft}^3/\text{hr}$ ) times the pollutant concentration ( $\text{lb/ft}^3$ ), i.e.,

$$\begin{aligned} (92,352) (1.757 \times 10^{-5}) &= 1.62 \text{ lb/hr SP} \\ (92,352) (3.750 \times 10^{-5}) &= 3.46 \text{ lb/hr PM-10} \\ (92,352) (4.250 \times 10^{-5}) &= 3.92 \text{ lb/hr TP} \\ (92,352) (5.224 \times 10^{-5}) &= 4.82 \text{ lb/hr VOC} \\ (92,352) (5.472 \times 10^{-6}) &= 0.51 \text{ lb/hr SO}_2 \\ (92,352) (1.856 \times 10^{-5}) &= 1.71 \text{ lb/hr H}_2\text{S} \end{aligned}$$

These are the maximum hourly emissions expected from the storage tank at any time.

Annual emissions from tank filling are computed as the hourly emissions times the period of filling, i.e.,

$$1.62 (6859) = 11,112 \text{ lb/yr} = 5.56 \text{ ton/yr SP}$$

3.46 (6859) = 23,732 lb/yr = 11.87 ton/yr PM-10  
 3.92 (6859) = 26,887 lb/yr = 13.44 ton/yr TP  
 4.82 (6859) = 33,060 lb/yr = 16.53 ton/yr VOC  
 0.51 (6859) = 3,498 lb/yr = 1.75 ton/yr SO<sub>2</sub>  
 1.71 (6859) = 11,729 lb/yr = 5.86 ton/yr H<sub>2</sub>S

### 2.2.2 Emissions from Storage Tanks During Non-Filling

Period of non-filling = 8760 - 6859 = 1901 hr/yr.

Annual emissions are calculated as the tank ventilation rate during non-filling periods, i.e., (1455 acfm) (60 min/hr) (1901 hr/yr) =  $1.660 \times 10^8$  ft<sup>3</sup>/yr, times the pollutant concentration, i.e.,

$(1.660 \times 10^8) (1.757 \times 10^{-5}) = 2,916$  lb/yr = 1.46 ton/yr SP  
 $(1.660 \times 10^8) (3.750 \times 10^{-5}) = 6,223$  lb/yr = 3.11 ton/yr PM-10  
 $(1.660 \times 10^8) (4.250 \times 10^{-5}) = 7,053$  lb/yr = 3.53 ton/yr TP  
 $(1.660 \times 10^8) (5.224 \times 10^{-5}) = 8,670$  lb/yr = 4.33 ton/yr VOC  
 $(1.660 \times 10^8) (5.472 \times 10^{-6}) = 908$  lb/yr = 0.45 ton/yr SO<sub>2</sub>  
 $(1.660 \times 10^8) (1.856 \times 10^{-5}) = 3,080$  lb/yr = 1.54 ton/yr H<sub>2</sub>S

### 2.2.3 Total Annual Emissions from Storage Tanks

Total annual emissions per tank are computed as the sum of emissions during filling and emissions during non-filling, i.e.,

5.56 + 1.46 = 7.02 ton/yr SP  
 11.87 + 3.11 = 14.98 ton/yr PM-10  
 13.44 + 3.53 = 16.97 ton/yr TP  
 16.53 + 4.33 = 20.86 ton/yr VOC  
 1.75 + 0.45 = 2.20 ton/yr SO<sub>2</sub>

$$5.86 + 1.54 = 7.40 \text{ ton/yr H}_2\text{S}$$

#### 2.2.4 Emissions from the Barge During Barge Filling

Maximum hourly emissions are computed as the vapor displacement rate, i.e.,  $(800 \text{ LT/hr})(2240 \text{ lb/LT}) / (112 \text{ lb/ft}^3) = 16,000 \text{ ft}^3/\text{hr}$ , times the pollutant concentrations, i.e.,

$$\begin{aligned} 16,000 (1.757 \times 10^{-5}) &= 0.28 \text{ lb/hr SP} \\ 16,000 (3.750 \times 10^{-5}) &= 0.60 \text{ lb/hr PM-10} \\ 16,000 (4.250 \times 10^{-5}) &= 0.68 \text{ lb/hr TP} \\ 16,000 (5.224 \times 10^{-5}) &= 0.84 \text{ lb/hr VOC} \\ 16,000 (5.472 \times 10^{-6}) &= 0.09 \text{ lb/hr SO}_2 \\ 16,000 (9.114 \times 10^{-5}) &= 1.46 \text{ lb/hr H}_2\text{S} \end{aligned}$$

(Note: the H<sub>2</sub>S concentration applies to a ventilation rate of  $16,000 \text{ ft}^3/\text{hr} = 266.7 \text{ acfm}$ ).

Annual emissions are computed as the hourly emission rate times the number of hours per year of barge filling. The number of hours of filling is equal to the annual throughput divided by the sulfur transfer rate, i.e.,  $2 \times 10^6 \text{ LT/yr} / 800 \text{ (LT/hr)} = 2500 \text{ hr/yr}$ ,

$$\begin{aligned} 2500 (0.28) &= 700 \text{ lb/yr} = 0.35 \text{ ton/yr SP} \\ 2500 (0.60) &= 1,500 \text{ lb/yr} = 0.75 \text{ ton/yr PM-10} \\ 2500 (0.68) &= 1,700 \text{ lb/yr} = 0.85 \text{ ton/yr TP} \\ 2500 (0.84) &= 2,100 \text{ lb/yr} = 1.05 \text{ ton/yr VOC} \\ 2500 (0.09) &= 225 \text{ lb/yr} = 0.11 \text{ ton/yr SO}_2 \\ 2500 (1.46) &= 3,650 \text{ lb/yr} = 1.83 \text{ ton/yr H}_2\text{S} \end{aligned}$$

## 2.3 SUMMARY

Maximum hourly and annual emissions of SP, PM-10, TP, VOC, SO<sub>2</sub>, and H<sub>2</sub>S from the STI Pensacola facility are summarized below:

Contaminant	<u>Source Type</u>			
	Storage Tank		Barge	
	Max lb/hr	Actual T/yr	Max lb/hr	Actual T/yr
SP	1.62	7.02	0.28	0.35
PM-10	3.46	14.98	0.60	0.75
TP	3.92	16.97	0.68	0.85
VOC	4.82	20.86	0.84	1.05
SO <sub>2</sub>	0.51	2.20	0.09	0.11
H <sub>2</sub> S	1.71	7.40	1.46	1.83

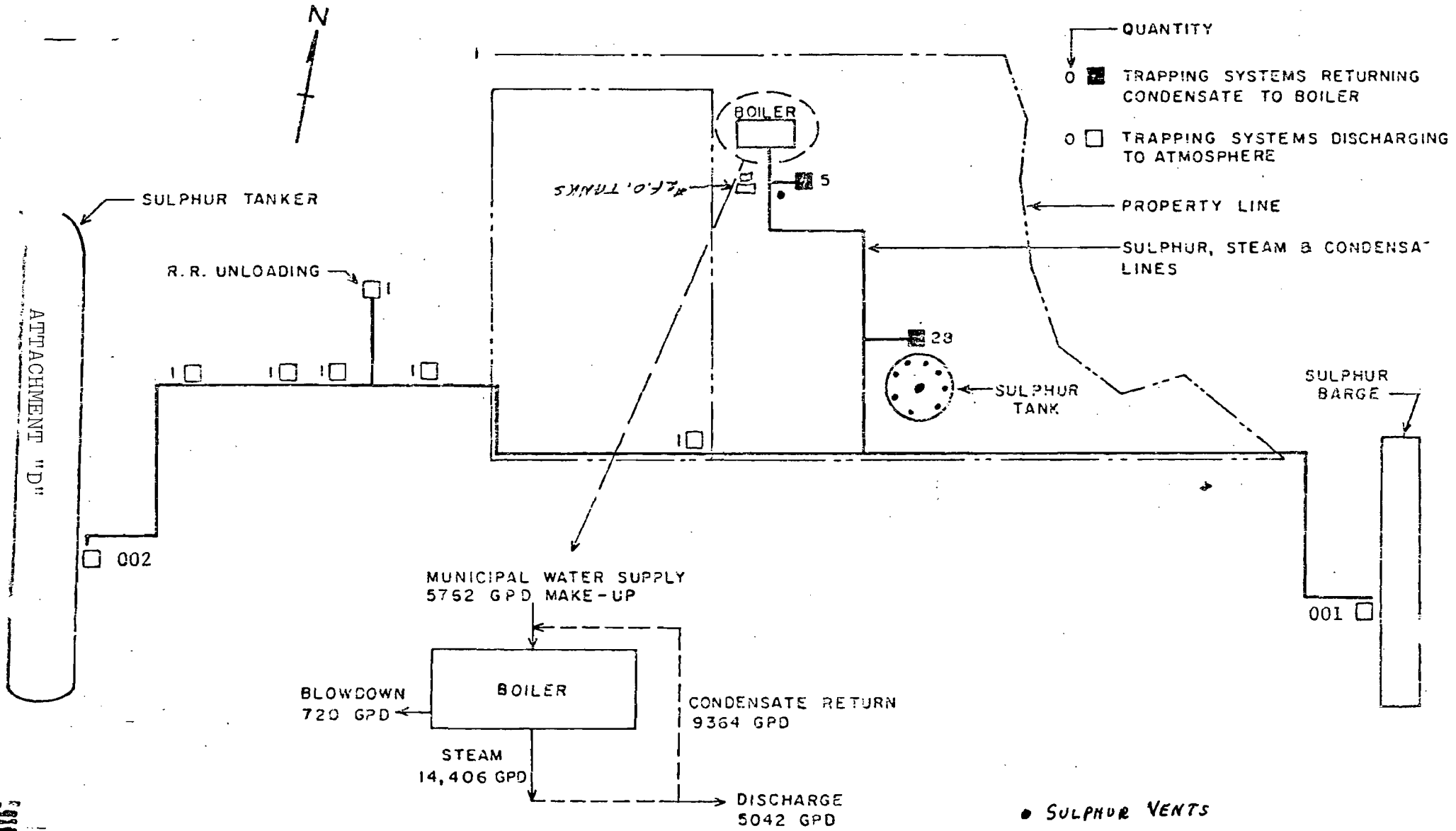
The above table indicates that the SP and PM-10 emissions are roughly 41% and 88% of the TP emissions, respectively. The large (i.e., factor of 2.5) difference between TP and SP emissions is due to emissions of condensible oils. These condensible oils affect TP measurements with DER Method 5 but are excluded from SP measurements using the sulfur-specific sampling procedure.

REFERENCES

- (1) Enviroplan, Inc., Air Quality Impact of Existing Liquid Sulfur Storage and Handling Facilities in the Tampa Area, Ref. No. 2116-418, December 26, 1984.
- (2) Enviroplan, Inc., Sulfur Particulate Emission Measurement Project at the Pennzoil Terminals in Tampa, Florida, Ref. Nos. 4025-617, 4025-620, October, 1986.
- (3) Enviroplan, Inc., Technical Report Supporting Application to the Florida DER for an Alternate Sulfur Particulate Emissions Sampling Procedure, Ref. No. 51-2116-748, October 30, 1987.



EPA I.D. NUMBER: FLD 000828889



JUN 15 1969

# FLOW DIAGRAM: SULTERCO, PENSACOLA, FL

