

→ P 4/8

Check Sheet

Company Name: *Conservug Inc*  
Permit Number: *AC 93-168619*  
PSD Number:  
County: *Dolk*  
Permit Engineer:  
Others involved:

Application:

- Initial Application
- Incompleteness Letters
- Responses
- Final Application (if applicable)
- Waiver of Department Action
- Department Response

Intent:

- Intent to Issue
- Notice to Public
- Technical Evaluation
- BACT Determination
- Unsigned Permit

Attachments:

- 
- 
- 
- Correspondence with:
  - EPA
  - Park Services
  - County
  - Other
- Proof of Publication
- Petitions - (Related to extensions, hearings, etc.)

Final Determination:

- Final Determination
- Signed Permit
- BACT Determination

Post Permit Correspondence:

- Extensions
- Amendments/Modifications
- Response from EPA
- Response from County
- Response from Park Services

P 938 762 871

RECEIPT FOR CERTIFIED MAIL

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

PS Form 3800, June 1985

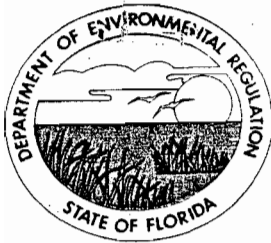
Sent to JG Gabriel	
Street and No. Consero, Inc P.O. Box 314	
P.O., State and ZIP Code Nichols, FI	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date 2-7-90	

● **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: JG Gabriel Consero, Inc P.O. Box 314 Nichols, FI 33863		4. Article Number P 938 762 871	
		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	
5. Signature - Address X		Always obtain signature of addressee or agent and <b>DATE DELIVERED.</b>	
6. Signature - Agent XX <i>Lee Samuel</i>		8. Addressee's Address (ONLY if requested and fee paid)	
7. Date of Delivery 2-9-90			



# 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. J. C. Gabriel  
Conserv, Inc.  
P. O. Box 314  
Nichols, Florida 33863

February 6, 1990

Enclosed is construction permit No. AC 53-168619 to Conserv for the existing molten sulfur system at Conserv's facility in Polk 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

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

Copy furnished to:

B. Thomas, SW District  
D. Patterson, 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 business on 2-7-90.

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.

Kym D. Debar  
Clerk

2-7-90  
Date

Final Determination

Conserv, Inc.  
Nichols, Polk County  
Florida

Molten Sulfur Storage and Handling System

Permit Number: AC 53-168619

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

February 1, 1989

## Final Determination

Conserv, Inc.'s application for the permitting of their existing molten sulfur system in Nichols, Polk County, Florida, has been reviewed by the Bureau of Air Regulation.

Public Notice of the Department's Intent to Issue the permit was published in The Polk County Democrat on January 15, 1990.

Copies of the Preliminary Determination have been available for inspection at the Department's Southwest District office in Tampa and the Department's Bureau of Air Regulation office in Tallahassee.

Comments received from Conserv (attachment 6) during the public notice period are as follows:

### 1. Comments on the Preliminary Determination

a) There is only one vent on the rail pit, not two as stated in the application.

b) The molten sulfur storage tank-north has a 24" vent, not an 8" one as stated in the application.

c) Conserv does not utilize all the molten sulfur received by rail for manufacturing sulfuric acid. Whenever sulfur is received in excess of the acid plant requirement, the excess is pumped to a truck loadout station from the rail pit. Trucks transport this sulfur to other facilities. On average this amounts to almost 30,000 tons per year.

### 2. Comments on the Draft Permit

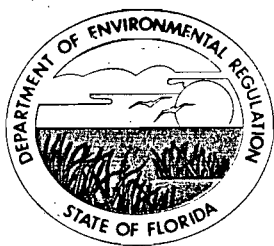
a) The sulfur handling system description should be updated based on the information in l.c., above.

b) The rail pit emission estimates tabulated in Specific Condition No. 8 should reflect the information in l.a. and l.c., above.

c) Specific Condition No. 2 should reflect the information in l.c., above.

The Department is in agreement with Conserv's comments and so Specific Conditions Nos. 2 and 8 will be amended to reflect this.

The final action of the Department is to issue the permit as proposed in the Preliminary Determination with the above mentioned changes to Specific Condition Nos. 2 and 8.



# 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:

Conserv, Inc.  
Post Office Box 314  
Nichols, FL 33863

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991  
County: Polk  
Latitude/Longitude: 27°52'53"N  
82°01'36"W  
Project: Molten Sulfur Storage  
and Handling System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 the permitting of the molten sulfur storage and handling system consisting of a rail and truck unloading system; one 2430 short ton (ST) molten sulfur North Storage Tank; one 1125 ST South Storage Tank; one 195 ST rail pit; one 165 ST truck pit; and the associated transfer pumps and piping. Molten sulfur received in excess of the sulfuric acid plant requirements is supplied by trucks to other facilities. The molten sulfur system is located at the Conserv's facility in Nichols, Polk County, Florida.

The UTM coordinates of this facility are Zone 17, 398.4 km East and 3084.2 km North.

The source shall be 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. Conserv's application received August 9, 1989.
2. DER's letter dated August 31, 1989.
3. Conserv's response received October 23, 1989.
4. Conserv's additional information received December 18, 1989.
5. DER's Preliminary Determination dated January 6, 1990.
6. Conserv's comments received January 18, 1990.
7. DER's Final Determination dated February 1, 1990.

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute 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, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, 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:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

GENERAL CONDITIONS:

6. The permittee shall at all times 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact 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.

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 revocation of this permit.

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

GENERAL CONDITIONS:

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 arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.
- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

**GENERAL CONDITIONS:**

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 date(s) 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 submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. Conserv's molten sulfur storage and handling system shall be allowed to operate continuously (i.e. 8760 hours/year).

2. The maximum molten sulfur receiving/handling rate (including about 30,000 tons per year of truck loadout) shall neither exceed 2800 tons per day (TPD), nor 305,000 tons per year (TPY), based on the rail supply. The maximum molten sulfur utilization rate shall neither exceed 825 tons per day (TPD), nor 275,000 tons per year (TPY), based on the a sulfuric acid production capacity of about 2300 TPD 100% sulfuric acid.

3. Visible emissions (VE) shall not exceed 20% opacity from any source in the molten sulfur system.

4. The permittee shall employ procedures to minimize emissions, from the molten sulfur system pursuant to the applicable requirements of F.A.C. Rule 17-2.600(11)(a) [Molten Sulfur Storage and Handling Facilities]. The permittee shall also comply with other applicable provisions of F.A.C. Chapters 17-2 and 17-4.

5. No objectionable odors shall be allowed, in accordance with F.A.C. Rule 17-2.620(2) [Objectionable Odor Prohibited].

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

**SPECIFIC CONDITIONS:**

6. Initial compliance tests shall be conducted in accordance with the July 1, 1988, version of 40 CFR 60 Appendix A, using EPA Method 9, for visible emissions. Test run duration shall not be less than 30 minutes. For the storage tank vents and the sulfur pits' vents the tests shall be conducted while the tank and pits are being filled (filling does not have to be continuous during the entire test). VE tests shall be required again at the time of renewing the operation permits.

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

8. For emission inventory and PSD purposes, the estimated maximum emissions from the sources in the molten sulfur storage and handling system are:

Source		Expected Emissions				
		PM/PM <sub>10</sub>	SP	SO <sub>2</sub>	TRS/H <sub>2</sub> S	VOC
Tank 1	lb/hr	0.2	0.1	0.2	0.1	0.1
(north)	TPY	0.5	0.2	0.5	0.3	0.3
Tank 2	lb/hr	0.2	0.1	0.1	0.1	0.1
(south)	TPY	0.4	0.2	0.4	0.2	0.3
Truck Pit	lb/hr	0.3	0.1	0.5	0.1	0.3
	TPY	0.4	0.2	0.4	0.2	0.3
Rail Pit	lb/hr	0.2	0.1	0.2	0.1	0.2
	TPY	0.5	0.2	0.5	0.3	0.4

9. A minimum of 15 days prior written notification of the compliance tests shall be given to DER's Southwest District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

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 (BAR) prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

PERMITTEE:  
Conserv, Inc.

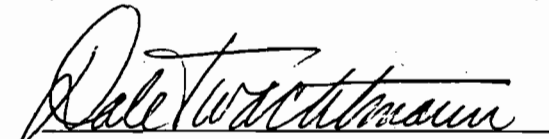
Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

SPECIFIC CONDITIONS:

11. An application for an operation permit must be submitted to DER's Southwest 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. 17-4.220).

Issued this 1 day  
of February, 1990

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Dale Twachtmann, Secretary

Attachments Available Upon Request



CONSERV

AGRIMONT GROUP

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

January 16, 1990

Mr. C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Fl 32399-2400

Re: DER File No. AC 53-168619  
Revised Data - Molten Sulfur Storage and Handling Permit  
Conserv, Inc. - Nichols, Florida

Dear Mr. Fancy:

Enclosed is the original and three copies of the Notice of Intent to Issue permit in the matter of Conserv, Inc. This notice was published in The Polk County Democrat on January 15, 1990 as your letter dated January 6, 1990 requested.

Sincerely,

Kenneth O. West  
Director of Environmental Affairs

attachment

cc: J.C. Gabriel  
E.C. Smith  
F.J. Ollia

KOW:ck  
J:LETTERS:PERMIT

*Handwritten notes:*  
J.C. Gabriel  
E.C. Smith, SW 11/17

RECEIVED

JAN 18 1990

DER-BAQM

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 a permit to Conserv, Inc., Post Office Box 314, Nichols, FL 32863, for the existing molten sulfur storage and handling system located in Nichols, Polk County, Florida. A determination of the 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 (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 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 normal 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, Southwest District Office, 4520 Oak Fair Boulevard, Tampa, Florida 33610-7347.

Any person may send written comments on the proposed action to Mr. Bill Thomas 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.  
Jan. 15, 1990-150

AFFIDAVIT OF PUBLICATION

The Polk County Democrat  
Published Semi-Weekly  
Bartow, Polk County, Florida

Case No. \_\_\_\_\_

STATE OF FLORIDA  
COUNTY OF POLK

Before the undersigned authority personally appeared \_\_\_\_\_

S. L. Frisbie, IV \_\_\_\_\_, who on oath says that (s)he is

Publisher \_\_\_\_\_ of The Polk County Democrat, a newspaper pub-

lished at Bartow, in Polk County, Florida; that the attached copy of advertisement, being

a Notice of intent to issue Permit \_\_\_\_\_ in the

matter of Conserv, Inc. \_\_\_\_\_

in the \_\_\_\_\_ Court, was published in said newspaper in the issues

of January 15, 1990 \_\_\_\_\_

Affiant further says that The Polk County Democrat is a newspaper published at Bartow, in said Polk County, Florida, and that said newspaper has heretofore been continuously published in said Polk County, Florida, each Monday and Thursday, and has been entered as second class matter at the post office in Bartow, in said Polk County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm, or corporation any discount, rebate, commission, or refund for the purpose of securing this advertisement for publication in said newspaper.

Signed S. L. Frisbie, IV

Sworn to and subscribed before me this \_\_\_\_\_ 16th day of

January \_\_\_\_\_, 1990

Nancy M. Carmichael

Notary Public

My Commission Expires:

Notary Public, State of Florida at Large  
My Commission Expires Nov. 18, 1992







**AGRIMONT GROUP**  
MONTEDISON AGRIBUSINESS

P. O. BOX 314  
NICHOLS, FLORIDA 33863  
TELEPHONE: (813) 425-1164  
TELEX: 522421  
TWIX: 810-867-0467

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

January 16, 1990

Mr. C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Fl 32399-2400

Re: DER File No. AC 53-168619  
Revised Data - Molten Sulfur Storage and Handling Permit  
Conserv, Inc. - Nichols, Florida

Dear Mr. Fancy:

Pursuit to our review of the reference subject, we wish to confirm our conversation with Mr. Pradeep Raval. Revisions to the Rail Car Unloading data and vents sizing are attached.

These revisions reflect a Rail Car Pit Unloading logistic arrangement whereby Conserv is able to operate with limited molten storage capacity, and corrections to certain molten storage vessels vent number and sizing.

Sincerely,

Kenneth O. West  
Director of Environmental Affairs

attachment

cc: J.C. Gabriel  
E.C. Smith  
F.J. Farrokh

*P. Raval*  
*B. Thomas, SW Dist*  
*CHP/13T*

RECEIVED

JAN 18 1990

DER-BAQM

REVISIONS REQUESTED TO THE PROPOSED MOLTEN SULFUR STORAGE AND HANDLING PERMIT, DATED 01/05/90

1. The number of vents on our Rail Car Unloading Pit should be revised from two to one. The size is correct. The size of the vent on the North Molten Sulfur Storage Tank should be revised to 24 inches.
  
2. The DER Technical Evaluation and Preliminary Determination, dated January 6, 1990, under II. Project Description, first paragraph: the last sentence should be revised. Conserv does not use all molten sulfur received in the manufacture of sulfuric acid. This sentence should be revised to reflect truck shipments of molten sulfur directly out of the plant from the Rail Car Pit.

Due to limited storage facilities for molten sulfur, from time to time, Conserv receives more molten sulfur delivered by Rail Cars than it can store. The extra sulfur is unloaded in the rail car pit, then immediately shipped out of the plant directly from the Rail Unloading Pit via a truck loading station.

The rail car sulfur is transferred to the truck loading station via a valving and piping arrangement. The extra sulfur is not pumped into the molten sulfur storage tanks.

individual Source Emission Data:

Revised capacity through put rate of the Rail Car Unloading Pit due to loading 30,000 tons per year direct from Rail Car Pit to a truck loading station.

Rail Car Pit Revised Data due to truck loading from pit  
(See detail Rail Car Unloading Pit calculations on page 3)

Total					
Reduced	Sulfur	H2S	SO2	VOC	Total
Sulfur	Partic.	Emiss.	Emiss.	Emiss.	Particulate
0.30*	0.21	0.30	0.53	0.37	0.51

\* All figures in tpy

3. On page 5 of 7, SPECIFIC CONDITIONS: ITEM 2.

If this condition applies only to the production capacity of the sulfuric acid plant, then it is correct. However, it does not consider the extra 30,000 tons per year of molten sulfur, on average, that we load out of the plant through our truck loading station.

To avoid confusion, we believe this statement should be revised to a total of 305,000 tons per year instead of 275,000 TPY to reflect both the shipping of molten sulfur from the Rail Car Unloading Pit and the production rate to the sulfuric acid plant.

#### RAILCAR UNLOADING PIT

##### Sulfur Particulate Idle

= 1 vents x 18 cu.ft./min x 0.2 grains/cu.ft x 60 min/hr x 1/7000 lb/grain  
x 1/2000 ton/lb x 8760 hr/yr  
= 0.14 tpy

##### Sulfur Particulate Filling

= 1/0.0559 ton/cu.ft. x 0.2 grains/cu.ft. x 1/7000 lb/grain  
x 1/2000 ton/lb x 267,015 ton/yr.  
= 0.07 tpy

##### H<sub>2</sub>S Emissions Idle

= 1 x 18 cu.ft./min x 0.303 grains/cu.ft. x 60 min/hr x 1/7000 lbs/grain  
x 1/2000 ton/lb x 8760 hr/yr  
= 0.20 tpy

##### H<sub>2</sub>S Emissions Filling

= 1/0.0559 cu.ft./ton x 0.303 grains/cu.ft. x 1/7000 lb/grain  
x 1/2000 ton/lb x 267,015 ton/yr  
= 0.10 tpy

##### SO<sub>2</sub> Emission Idle

= 1 vents x 18 cu.ft./min x 0.515 grains/cu.ft x 60 min/hr x 1/7000 lb/grain  
x 1/2000 ton/lb x 8760 hr/yr  
= 0.35 tpy

##### SO<sub>2</sub> Emission Filling

= 1/0.0559 cu.ft./ton x 0.515 grains/cu.ft. x 1/7000 lb/grain  
x 1/2000 ton/lb x 267,015 ton/yr = 0.18 tpy

##### VOC Emission Idle

= 1 vent x 18 cu.ft./min x 5.224 x 10<sup>-5</sup> lb/cu.ft. x 1/2000 ton/lb  
x 8760 hr/yr x 60 min/hr = 0.25 tpy

##### VOC Emission Filling

= 1/0.0559 cu.ft./ton x 5.224 x 10<sup>-5</sup> lb/cu.ft. x 1/2000 ton/lb  
x 267,015 ton/yr = 0.12 ton/yr

#### TOTAL EMISSIONS

Sulfur Particulate:	0.21 ton/yr
Total particulate:	0.51 ton/yr
H <sub>2</sub> S Emission	0.30 ton/yr
SO <sub>2</sub> Emission	0.53 ton/yr
VOC Emission	0.37 ton/yr
TRS Emission	0.30 ton/yr

(J:\SUL\_UNLO.DER)

P 938 762 799

**RECEIPT FOR CERTIFIED MAIL**

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

Sent to Mr. J. C. Gabriel, Conserv, Inc	
Street and No. P. O. Box 314	
P.O. State and ZIP Code Nichols, FL 33863	
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: 1-5-90 Permit: AC 63-168619	

PS Form 3800, June 1985

● **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. J. C. Gabriel Conserv, Inc. P. O. Box 314 Nichols, Florida 33863	4. Article Number P 938 762 799 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
5. Signature - Address X	Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .
6. Signature - Agent X X <i>Bob Bennett</i>	8. Addressee's Address (ONLY if requested and fee paid)
7. Date of Delivery <i>1-8-90</i>	

PS Form 3811, Mar. 1988

\* U.S.G.P.O. 1988-212-865

DOMESTIC RETURN RECEIPT



## 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

January 6, 1990

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

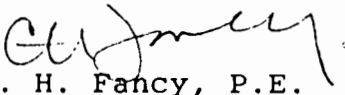
Mr. J. C. Gabriel  
Conserv, Inc.  
Post Office Box 314  
Nichols, Florida, 33863

Dear Mr. Gabriel:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Conserv's molten sulfur storage and handling system in Nichols, Polk County, Florida.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Regulation.

Sincerely,

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

CHF/pr

Attachments

cc: B. Thomas, SW District  
D. Patterson, 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 1-5-90.

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.

Kym D. Eber  
Clerk

1-5-90  
Date

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of  
Application for Permit by:

Conserv, Inc.  
Post Office Box 314  
Nichols, FL. 33863

DER File No. AC 53-168619

---

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, Conserv, Inc., applied on August 9, 1989, to the Department of Environmental Regulation for a construction permit for the existing molten sulfur storage and handling system located at Conserv's facility in Nichols, Polk County, Florida.

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.

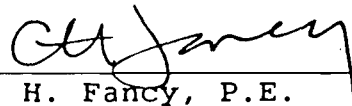
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applicant 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



---

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

Copies furnished to:

B. Thomas, SW District  
D. Patterson, P.E.

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 a permit to Conserv, Inc., Post Office Box 314, Nichols, FL 33863, for the existing molten sulfur storage and handling system located in Nichols, Polk County, Florida. A determination of the 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 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 normal 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  
Southwest District Office  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347

Any person may send written comments on the proposed action to Mr. Bill Thomas 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

Conserv, Inc.  
Nichols, Polk County  
Florida

Molten Sulfur Storage and Handling System

Permit Number: AC 53-168619

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

January 6, 1990

## I. Application

### A. Applicant

Conserv, Inc.  
P. O. Box 314  
Nichols, Florida 33863

### B. Project and Location

The applicant proposes to permit the existing molten sulfur storage and handling system at Conserv's phosphate processing facility in Nichols, Polk County, Florida.

The UTM coordinates of this facility are Zone 17, 398.4 km East and 3084.2 km North.

### C. Facility Category

Conserv's facility is major in accordance with Rule 17-2.100 of the Florida Administrative Code (F.A.C.). The molten sulfur storage and handling system consists of several existing minor sources within the facility. The Standard Industrial Classification (SIC) Code is Industry No. 2819, Sulfuric Acid/Phosphate Processing.

The NEDS Source Classification Code (SCC) is 3-01-070-02, Storage and Transfer, Industrial Inorganic Chemicals Production.

Conserv applied for a construction permit on August 9, 1989, and the application was deemed complete on December 18, 1989.

## II. Project Description

Conserv's molten sulfur storage and handling system consists of a rail and truck unloading system; one 2430 short ton (ST) molten sulfur North Storage Tank; one 1125 ST South Storage Tank; one 195 ST rail pit; one 165 ST truck pit; and the associated transfer pumps and piping. All the molten sulfur received is used in the manufacture of sulfuric acid.

The venting configuration of both tanks consists of one vent at the center of the tank. The rail pit has two vents, while the truck pit has one vent.

The molten sulfur is delivered by 100 ton capacity railcars, and 22 ton capacity trucks. Sulfur from the railcars is gravity fed to the rail receiving pit. Sulfur from the trucks is gravity fed to the truck receiving pit. The north tank receives molten sulfur from both the rail and truck pits. The south tank receives molten sulfur only from the truck pit. The molten sulfur is supplied to the sulfuric acid plant from the storage tanks via the truck pit. The pits and the storage tanks are steam heated to keep the sulfur molten. Currently, the production rate of the acid plant is about 2300 tons per day(TPD). The corresponding molten sulfur requirement would be about 825 TPD, and 275,000 tons per year (TPY).

The 2430 ST north sulfur storage tank is 44 ft in diameter and 25 ft in height. The 1125 ST south sulfur storage tank is 30 ft in diameter and 24 ft in height. Both tanks have a single 8 inch vent in the center. The rail pit is about 50 ft x 8 ft x 8 ft deep, while the truck pit is 48 ft x 8 ft x 7.5 ft deep. The rail pit has two 8 inch vents, while the truck pit has one 8 inch vent. All vents have natural ventilation.

Emissions of particulate matter (PM) and particulates less than 10 microns in size ( $PM_{10}$ ) from the individual sources are expected to be less than 1 TPY. Small amounts of sulfur dioxide ( $SO_2$ ), hydrogen sulfide ( $H_2S$ ), reduced sulfur compounds (TRS), and volatile organic compounds (VOCs), will also be emitted.

### III. Rule Applicability

Conserv's existing facility is major in accordance with F.A.C. Rule 17-2.100. The molten sulfur storage and handling system will emit particulate matter and will be permitted in accordance with F.A.C. Rules 17-2 and 17-4; and, Chapter 403 of the Florida Statutes.

The facility is located in Polk County, an area designated as attainment for all the criteria pollutants, in accordance with F.A.C. Rule 17-2.420.

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, because the projected emissions do not exceed significance levels in Table 500-2.

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 20% opacity.

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 emission point in the sulfur system (including every vent) for the initial compliance demonstration. Several emission points may be done simultaneously if possible within the requirements of EPA Method 9. The Department will require a retest at the time of operation permit renewals.

#### IV. Source Impact Analysis

##### A. Emission Limitations

The maximum emissions from the molten sulfur system are estimated to be as follows, based on test results from other similar sources:

Source		Expected Emissions				
		PM/PM <sub>10</sub>	SP	SO <sub>2</sub>	TRS/H <sub>2</sub> S	VOC
Tank 1	lb/hr	0.2	0.1	0.2	0.1	0.1
(north)	TPY	0.5	0.2	0.5	0.3	0.3
Tank 2	lb/hr	0.2	0.1	0.1	0.1	0.1
(south)	TPY	0.4	0.2	0.4	0.2	0.3
Truck Pit	lb/hr	0.3	0.1	0.5	0.1	0.3
	TPY	0.4	0.2	0.4	0.2	0.3
Rail Pit	lb/hr	0.2	0.1	0.2	0.1	0.2
	TPY	0.8	0.3	0.9	0.5	0.4

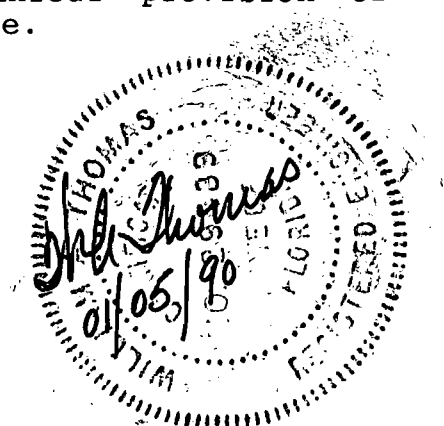
Visible emissions will be limited to 20% opacity.

B. Air Quality Impacts

The technical evaluation of this project determined that ambient air monitoring or modeling would not be required to provide reasonable assurance that Florida's air quality standards would not be violated.

V. Conclusion

Based on the information provided by Conserv, the Department has reasonable assurance that the existing molten sulfur storage and handling system, 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 Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:  
Conserv, Inc.  
Post Office Box 314  
Nichols, FL 33863

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991  
County: Polk  
Latitude/Longitude: 27°52'53"N  
82°01'36"W  
Project: Molten Sulfur Storage  
and Handling System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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 the permitting of the molten sulfur storage and handling system consisting of a rail and truck unloading system; one 2430 short ton (ST) molten sulfur North Storage Tank; one 1125 ST South Storage Tank; one 195 ST rail pit; one 165 ST truck pit; and the associated transfer pumps and piping. The molten sulfur system is located at the Conserv's facility in Nichols, Polk County, Florida.

The UTM coordinates of this facility are Zone 17, 398.4 km East and 3084.2 km North.

The source shall be 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. Conserv's application received August 9, 1989.
2. DER's letter dated August 31, 1989.
3. Conserv's response received October 23, 1989.
4. Conserv's additional information received December 18, 1989.
5. DER's Preliminary Determination dated January 6, 1990.

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute 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, plant or aquatic life or property and penalties therefor caused by the construction or operation of this permitted source, 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:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

**GENERAL CONDITIONS:**

6. The permittee shall at all times 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact 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.

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 revocation of this permit.

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

GENERAL CONDITIONS:

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 arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.
- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

**GENERAL CONDITIONS:**

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 date(s) 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 submitted or corrected promptly.

**SPECIFIC CONDITIONS:**

1. Conserv's molten sulfur storage and handling system shall be allowed to operate continuously (i.e. 8760 hours/year).

2. The maximum molten sulfur throughput rate shall neither exceed 825 tons per day (TPD), nor 275,000 tons per year (TPY), based on the a sulfuric acid production capacity of about 2300 TPD 100% sulfuric acid.

3. Visible emissions (VE) shall not exceed 20% opacity from any source in the molten sulfur system.

4. The permittee shall employ procedures to minimize emissions, from the molten sulfur system pursuant to the applicable requirements of F.A.C. Rule 17-2.600(11)(a) [Molten Sulfur Storage and Handling Facilities]. The permittee shall also comply with other applicable provisions of F.A.C. Chapters 17-2 and 17-4.

5. No objectionable odors shall be allowed, in accordance with F.A.C. Rule 17-2.620(2) [Objectionable Odor Prohibited].

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

SPECIFIC CONDITIONS:

6. Initial compliance tests shall be conducted in accordance with the July 1, 1988, version of 40 CFR 60 Appendix A, using EPA Method 9, for visible emissions. Test run duration shall not be less than 30 minutes. For the storage tank vents and the sulfur pits' vents the tests shall be conducted while the tank and pits are being filled (filling does not have to be continuous during the entire test). VE tests shall be required again at the time of renewing the operation permits.

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

8. For emission inventory and PSD purposes, the estimated maximum emissions from the sources in the molten sulfur storage and handling system are:

Source		Expected Emissions				
		PM/PM <sub>10</sub>	SP	SO <sub>2</sub>	TRS/H <sub>2</sub> S	VOC
Tank 1	lb/hr	0.2	0.1	0.2	0.1	0.1
(north)	TPY	0.5	0.2	0.5	0.3	0.3
Tank 2	lb/hr	0.2	0.1	0.1	0.1	0.1
(south)	TPY	0.4	0.2	0.4	0.2	0.3
Truck Pit	lb/hr	0.3	0.1	0.5	0.1	0.3
	TPY	0.4	0.2	0.4	0.2	0.3
Rail Pit	lb/hr	0.2	0.1	0.2	0.1	0.2
	TPY	0.8	0.3	0.9	0.5	0.4

9. A minimum of 15 days prior written notification of the compliance tests shall be given to DER's Southwest District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

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 (BAR) prior to 60 days before the expiration of the permit (F.A.C. 17-4.090).

PERMITTEE:  
Conserv, Inc.

Permit Number: AC 53-168619  
Expiration Date: Jan. 1, 1991

**SPECIFIC CONDITIONS:**

11. An application for an operation permit must be submitted to DER's Southwest 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. 17-4.220).

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

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

---

Dale Twachtmann, Secretary

Attachments Available Upon Request





AGRIMONT GROUP  
MONTEDISON AGRIBUSINESS

P. O. BOX 314  
NICHOLS, FLORIDA 33863  
TELEPHONE: (813) 425-1164  
TELEX: 522421  
TWIX: 810-867-0467

RECEIVED

DEC 18 1989

DER-BAQM

December 13, 1989

Mr. C. H. Fancy, P. E.  
Deputy Chief  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Incomplete Application for Sulfur Facility Permitting,  
AC 53-168619

Dear Sir:

In response to your letter dated August 31, 1989 and later Phone conversations, we are sending an amendment to our letter dated October 18, 1989. We are amending the air emissions estimates for all of the pollutants emitted by the individual sources in our sulfur facility as follows:

INDIVIDUAL SOURCE EMISSION DATA

	Total Reduced Sulfur	Sulfur Particulate	H2S Emissions	SO2 Emissions	VOC Particulate	Total Particulate
North Tank	0.28tpy	0.19tpy	0.27tpy	0.47tpy	0.34tpy	0.46tpy
South Tank	0.24tpy	0.16tpy	0.24tpy	0.41tpy	0.29tpy	0.39tpy
Rail Car Pit	0.51tpy	0.33tpy	0.50tpy	0.85tpy	0.36tpy	0.80tpy
Truck Pit	0.43tpy	0.15tpy	0.21tpy	0.39tpy	0.27tpy	0.36tpy

The assumptions, calculations, and references are listed in the attached pages. If you need any addition information, or clarification please do not hesitate to contact me.

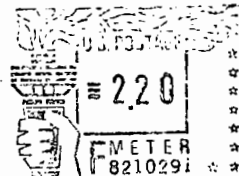
Sincerely,

Kenneth O. West  
Director of Environmental Affairs  
J:LETTERS:sulfur

cc: P. Raval  
B. Thomas, SW Dist  
CHP/BT



123456789012  
123456789012  
123456789012



**CONSERV**

ENVIR - NRS

**AGRIMONT GROUP**

MONTEDISON AGRIBUSINESS

P.O. BOX 314 • NICHOLS, FLORIDIA 33863

Mr. C. H. Fancy, P. E.  
Deputy Chief  
Bureau of Air Quality Management  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

CERTIFIED MAIL  
RETURN RECEIPT

## ASSUMPTIONS

1. At the maximum Conserv would consume 31.0 tons of sulfur per hour.
2. The Hydrogen Sulfide conc. is the same as the total reduced sulfur compounds.
3. The total particulate is 2.42 greater than the sulfur particulate.
4. Average natural ventilation per vent is 18cu.ft/min (from Koogler & Associates).
5. Sulfur particulate in vent gas when pit is being filled is 0.2 grains/cu.ft. (per Koogler and Enviroplan).
6. Sulfur Density at 130 degrees C = 0.0559 ton/cu. ft.
7. Equilibrium Concentrations:  
 $H_2S = 0.303$  grains/cu. ft.  
 $SO_2 = 0.515$  grains/cu. ft.  
 $VOC = 5.224 \times 10^{-5}$  lb/cu. ft.
8. The truck unloading pit receives 34,545 tons/yr sulfur.
9. The rail car unloading pit receives 237,015 tons/yr sulfur.
10. North Storage receives 185,623 ton/yr sulfur.
11. South Storage receives 85,937 ton/yr sulfur.

### CONCENTRATION OF POLLUTENT IN VAPOR SPACE ABOVE MOLTEN SULFUR

	CONCENTRATION, lb/acf
Sulfur Particulate	$1.757 \times 10^{-5}$
Total Particulate	$4.250 \times 10^{-5}$
Hydrogen Sulfide	$1.719 \times 10^{-2} (v^{0.938})^*$
Sulfur Dioxide	$5.472 \times 10^{-6}$
Volatile Organic Compounds	$5.224 \times 10^{-5}$
Total Reduced Sulfur Compounds (TRS)	$1.719 \times 10^{-2} x(v^{-0.938})^*$

\* Where v= ventilation rate (acfm) to the  $-0.938$  power

## CALCULATIONS

### NORTH TANK:

#### Sulfur Particulate Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.2 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr.} \\ &= 0.14 \text{ tpy} \end{aligned}$$

#### Sulfur Particulate Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu.ft./ton} \times 0.2 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 185,623 \text{ ton/yr.} \\ &= 0.05 \text{ tpy} \end{aligned}$$

#### H<sub>2</sub>S Emission Idle:

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.303 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lbs/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ &= 0.20 \text{ tpy} \end{aligned}$$

#### H<sub>2</sub>S Emission Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu. ft./ton} \times 0.303 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 185,623 \text{ ton/yr.} \\ &= 0.07 \text{ tpy} \end{aligned}$$

#### SO<sub>2</sub> Emission Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.515 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ min/yr} \\ &= 0.35 \text{ tpy} \end{aligned}$$

#### SO<sub>2</sub> Emission Filling

$$\begin{aligned} &1/0.0559 \text{ cu. ft./ton} \times 0.515 \text{ grains/ cu.ft.} \times 1/7000 \text{ lb/grain} \times 1/2000 \text{ ton/lb} \\ &\times 185,623 \text{ ton/yr} = 0.12 \text{ tpy} \end{aligned}$$

#### VOC Emissions Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 5.224 \times 10^{-5} \text{ lb/cu.ft.} \times 1/2000 \text{ ton/lb} \\ &\quad \times 8760 \text{ hr/yr} \times 60 \text{ min/hr} = 0.25 \text{ tpy} \end{aligned}$$

#### VOC Emissions Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu.ft./ton} \times 5.224 \times 10^{-5} \text{ lb/cu.ft.} \times 1/2000 \text{ ton/lb} \\ &\quad \times 185,623 \text{ ton/yr} \\ &= 0.09 \text{ tpy} \end{aligned}$$

### TOTAL EMISSIONS

Sulfur Particulate:	0.19 ton/yr
Total Particulate:	0.46 ton/yr
H <sub>2</sub> S Emission:	0.27 ton/yr
SO <sub>2</sub> Emission:	0.47 ton/yr
VOC Emission:	0.34 ton/yr
TRS Emission:	0.28 ton/yr

SOUTH TANK:

Sulfur Particulate Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.2 \text{ grains/cu. ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ &= 0.14 \text{ tpy} \end{aligned}$$

Sulfur Particulate Filling

$$\begin{aligned} &= 1/0.0559 \text{ ton/ cu.ft.} \times 0.2 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb.} \times 85,937 \text{ ton/yr} \\ &= 0.02 \text{ tpy} \end{aligned}$$

H<sub>2</sub>S Emission Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.303 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb.} \times 8760 \text{ hr/yr.} \\ &= 0.21 \text{ tpy} \end{aligned}$$

H<sub>2</sub>S Emission Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu.ft./ton} \times 0.303 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 85,937 \text{ ton/yr} \\ &= 0.03 \text{ tpy} \end{aligned}$$

SO<sub>2</sub> Emission Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.515 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ &= 0.35 \text{ tpy} \end{aligned}$$

SO<sub>2</sub> Emission Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu.ft./ton} \times 0.515 \text{ grains/ cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 85,937 \text{ ton/yr} = 0.06 \text{ tpy} \end{aligned}$$

VOC Emissions Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 5.224 \times 10^{-5} \text{ lb/cu ft} \times 1/2000 \text{ ton/lb} \\ &\quad \times 8760 \text{ hr/yr} \times 60 \text{ min/hr} = 0.25 \text{ tpy} \end{aligned}$$

VOC Emissions Filling

$$\begin{aligned} &1/0.0559 \text{ cu.ft./ton} \times 5.224 \times 10^{-5} \text{ lb/cu.ft.} \times 1/2000 \text{ ton/lb} \times 85,937 \text{ ton/yr} \\ &= 0.04 \text{ tpy} \end{aligned}$$

TOTAL EMISSIONS

Sulfur Particulate:	0.16 ton/yr
Total Particulate:	0.39 ton/yr
H <sub>2</sub> S Emission:	0.24 ton/yr
SO <sub>2</sub> Emission:	0.41 ton/yr
VOC Emission;	0.29 ton/yr
TRS Emission:	0.24 ton/yr

RAILCAR UNLOADING PIT

Sulfur Particulate Idle

$$= 2 \text{ vents} \times 18 \text{ cu.ft./min} \times 0.2 \text{ grains/cu.ft} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ = 0.27 \text{ tpy}$$

Sulfur Particulate Filling

$$= 1/0.0559 \text{ ton/cu.ft.} \times 0.2 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ \times 1/2000 \text{ ton/lb} \times 237,015 \text{ ton/yr.} \\ = 0.06 \text{ tpy}$$

H<sub>2</sub>S Emissions Idle

$$= 2 \times 18 \text{ cu.ft./min} \times 0.303 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lbs/grain} \\ \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ = 0.41 \text{ tpy}$$

H<sub>2</sub>S Emissions Filling

$$= 1/0.0559 \text{ cu.ft./ton} \times 0.303 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ \times 1/2000 \text{ ton/lb} \times 237,015 \text{ ton/yr} \\ = 0.09 \text{ tpy}$$

SO<sub>2</sub> Emission Idle

$$= 2 \text{ vents} \times 18 \text{ cu.ft./min} \times 0.515 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ = 0.70 \text{ tpy}$$

SO<sub>2</sub> Emission Filling

$$= 1/0.0559 \text{ cu.ft./ton} \times 0.515 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ \times 1/2000 \text{ ton/lb} \times 237,015 \text{ ton/yr} = 0.15 \text{ tpy}$$

VOC Emission Idle

$$= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 5.224 \times 10^{-5} \text{ lb/cu.ft.} \times 1/2000 \text{ ton/lb} \\ \times 8760 \text{ hr/yr} \times 60 \text{ min/hr} = 0.25 \text{ tpy}$$

VOC Emission Filling

$$= 1/0.0559 \text{ cu.ft/ton} \times 5.224 \times 10^{-5} \text{ lb/cu.ft.} \times 1/2000 \text{ ton/lb} \\ \times 237,015 \text{ ton/yr} = 0.11 \text{ ton/yr}$$

TOTAL EMISSIONS

Sulfur Particulate:	0.33 ton/yr
Total particulate:	0.80 ton/yr
H <sub>2</sub> S Emission	0.50 ton/yr
SO <sub>2</sub> Emission	0.85 ton/yr
VOC Emission	0.36 ton/yr
TRS Emission	0.51 ton/yr

## TRUCK UNLOADING PIT

### Sulfur Particulate Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.2 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ &= 0.14 \text{ tpy} \end{aligned}$$

### Sulfur particulate Filling

$$\begin{aligned} &= 1/0.0559 \text{ ton/cu.ft.} \times 0.2 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 34,545 \text{ ton/yr} \\ &= 0.01 \text{ tpy} \end{aligned}$$

### H<sub>2</sub>S Emission Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.303 \text{ grains/cu.ft.} \times 60 \text{ min/hr} \times 1/7000 \text{ lbs/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ &= 0.20 \text{ tpy} \end{aligned}$$

### H<sub>2</sub>S Emissions Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu.ft./ton} \times 0.303 \text{ grains/cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 34,545 \text{ ton/yr} \\ &= 0.01 \text{ tpy} \end{aligned}$$

### SO<sub>2</sub> Emissions Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 0.515 \text{ grains/cu. ft.} \times 60 \text{ min/hr} \times 1/7000/ \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 8760 \text{ hr/yr} \\ &= 0.35 \text{ tpy} \end{aligned}$$

### SO<sub>2</sub> Emissions Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu.ft./ton} \times 0.515 \text{ grains/ cu.ft.} \times 1/7000 \text{ lb/grain} \\ &\quad \times 1/2000 \text{ ton/lb} \times 34,545 \text{ ton/yr} = 0.04 \text{ tpy} \end{aligned}$$

### VOC Emissions Idle

$$\begin{aligned} &= 1 \text{ vent} \times 18 \text{ cu.ft./min} \times 5.224 \times 10^{-5} \text{ lb/cu.ft.} \times 1/2000 \text{ ton/lb} \\ &\quad \times 8760 \text{ hr/yr} \times 60 \text{ min/hr} \\ &= 0.25 \text{ tpy} \end{aligned}$$

### VOC Emissions Filling

$$\begin{aligned} &= 1/0.0559 \text{ cu.ft./ton} \times 5.224 \times 10^{-5} \text{ lb/cu.ft.} \times 1/2000 \text{ ton/lb} \\ &\quad \times 34,545 \text{ ton/yr} = 0.02 \text{ tpy} \end{aligned}$$

### TOTAL EMISSIONS

Sulfur Particulate:	0.15 ton/yr
Total Particulate:	0.36 ton/yr
H <sub>2</sub> S Emission:	0.21 ton/yr
SO <sub>2</sub> Emission:	0.39 ton/yr
VOC Emission:	0.27 ton/yr
TRS Emission:	0.43 ton/yr

REFERENCES FOR EMISSION ESTIMATES:

1. Enviroplan, Inc. Sulfur Particulate Emission Measurements Project at the Pennzoil Terminals in Tampa, FL, Res. Nos. 4025-617, 4025-620, October 1986.
2. Enviroplan, Inc. Air Quality Impact of Existing Liquid Sulfur Storage and Handling Facilities in the Tampa Area, Ref: No. 2116-418, December 26, 1984.
3. Sulfur Particulate - prepared by Dr. John B. Koogler, Koogler & Associates, Gainesville, FL for Agrico Chemical Company using actual measurements of a similar system and data obtained from Enviroplan, Inc.

J:LETTERS:assumption





**AGRIMONT GROUP**  
MONTEDISON AGRIBUSINESS

RECEIVED

P. O. BOX 314  
NICHOLS, FLORIDA 33863  
TELEPHONE: (813) 425-1164  
TELEX: 522421  
TWIX: 810-867-0467

OCT 23 1989

DER-BAQM

October 18, 1989

Mr. C.H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Incomplete Application for  
Sulfur Facility Permitting, AC 53-168619

Dear Sir:

The following information is provided in response to your letter of August 31, 1989. This information should complete the Construction Permit Application for Conserv's Molten Sulfur Handling Facilities.

1. What is the permitted sulfuric acid production capacity and the corresponding maximum molten sulfur requirement at this facility?

The permitted capacity of the sulfuric acid plant is 87.5 tons of 100% sulfuric acid per hour based upon the rate at which the May 17, 1989 stack test was conducted. This means that the permitted rate of Conserv's Sulfuric Acid Plant can be as high as 96.25 tons of 100% sulfuric acid per hour per Specific Condition No. 8 of Operating Permit No. A053-146516. At the rate of 96.25 tons of 100% sulfuric acid per hour Conserv would consume 31.0 tons of sulfur per hour.

2. 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. Also estimate the emissions from the sulfur delivery vehicle(s) while it is at the Conserv facility.

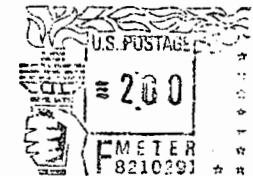
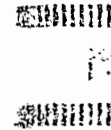
The application Conserv submitted for the facility addressed every source of sulfur particulate. There are no other sources of sulfur particulate at this facility.

Conserv receives molten sulfur by truck (22 tons) and by railcar (100 tons). These vehicles are unloaded by gravity and the volume of molten sulfur inside the vessel is displaced by ambient air, therefore there are no emissions from the sulfur delivery vehicle(s).



**AGRIMONT GROUP**  
MONTEDISON AGRIBUSINESS

P.O. BOX 314 • NICHOLS, FLORIDA 33863 • TEL. (813) 425-1104



Mr. C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

CERTIFIED MAIL  
RETURN RECEIPT

3. Submit air emission estimates for all the air pollutants emitted by the sources in the sulfur facility.

The other pollutants that are presently being emitted are delineated in a report submitted to the FDER by TRC Environmental Consultants, Inc. in 1983. This report titled "Preliminary Report on Emissions from Tank Number 4 at Sulfur Terminal Co., Inc., Tampa, Florida" , TRC Project No.2502-E51, dated December 30, 1983 is in the FDER's files. TRC measured SO<sub>2</sub>, H<sub>2</sub>S, and TRS emissions from a molten sulfur storage tank (10,000 ton) with a continuous air purge system (40 CFM). The average emissions from that tank were:

SO<sub>2</sub> = 0.267 #/HR  
H<sub>2</sub>S = 0.064 #/HR  
TRS = 0.181 #/HR

Conserv's total molten sulfur storage capacity is 3,915 tons and Conserv does not have any continuous air purge systems, therefore Conserv only emits these pollutants while displacing air in the tanks (filling operations). So an appropriate estimate on these emissions for Conserv's Molten Sulfur Handling Facility would be:

Calculations:

$$3,915 \text{ Tons} / 10,000 \text{ Tons (TRC Tank)} = 39.0\%$$

Hours of operation (filling) for facility: 1,565 Hours  
(see submittal dated August 7, 1989)

$$1,565 \text{ Hours} / 8,760 \text{ Hours per Year} = 18.0\%$$

Estimated Average Hourly Emission Factors for Conserv:

SO<sub>2</sub> = 0.267 #/HR \* 0.39 \* 0.18 = 0.019 #/HR  
H<sub>2</sub>S = 0.064 #/HR \* 0.39 \* 0.18 = 0.004 #/HR  
TRS = 0.181 #/HR \* 0.39 \* 0.18 = 0.013 #/HR

4. Provide the physical dimensions of the sulfur storage tanks and pits.

Conserv has two molten sulfur storage tanks; the North Storage Tank and the South Storage Tank. Conserv also has two Molten Sulfur Unloading Pits; the Railcar Unloading Pit and the Truck Unloading Pit. The physical deminsions for these vessels is as follows:

Tanks -

	<u>Height(FT)</u>	<u>Diameter(FT)</u>
North Tank	25	44
South Tank	24	30

Pits -

	<u>Length(FT)</u>	<u>Width(FT)</u>	<u>Depth(FT)</u>
Rail	50	8	8
Truck	48	8	7.5

If you need any additional information, or clarification please do not hesitate to contact me.

Sincerely,



Kenneth O. West  
Director of Environmental Affairs

cc: J.C. Gabriel

E.C. Smith

F.J. Ollia

ENV FILE

(envir/ws/fder/sulfur-2.der)

*copied: P. Paval  
H. Kums, SW Dist,  
C1F/ST*

P 938 762 667

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

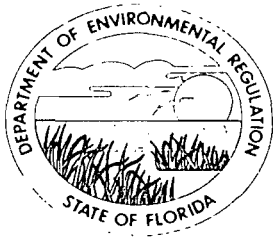
PS Form 3800, June 1985

Sent to Mr. J. C. Gabriel	
Street and No. Conserve, Inc.	
P.O. Box 314	
City and ZIP Code Nichols, FL 33863	
Postage	S
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	S
Postmark or Date mailed: 9/1/89 AC 53-168619	

**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)

<p>3. Article Addressed to: Mr. J. C. Gabriel Conserve, Inc. P.O. Box 314 Nichols, FL 33863</p>	<p>4. Article Number P 938 762 667</p> <p>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</p> <p>Always obtain signature of addressee or agent and DATE DELIVERED.</p>
<p>5. Signature - Address X</p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p>
<p>6. Signature - Agent X <i>J. C. Gabriel</i></p>	
<p>7. Date of Delivery 9-5-89</p>	



# Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

August 31, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. J. C. Gabriel  
Conserve, Inc.  
P.O. Box 314  
Nichols, FL 33863

Dear Mr. Gabriel:

Re: Conserve Sulfur Facility Permitting, AC 53-168619

The Department has received your application dated August 7, 1989, and deemed it incomplete. Please submit the following information including all assumptions, calculations and reference material:

1. What is the permitted sulfuric acid production capacity and the corresponding maximum molten sulfur requirement at this facility?
2. 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. Also estimate the emissions from the sulfur delivery vehicle(s) while it is at the Conserve facility.
3. Submit air emission estimates for all the air pollutants emitted by the sources in the sulfur facility.
4. Provide the physical dimensions of the sulfur storage tanks and pits.

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: B. Thomas, SW District  
D. Patterson, P.E., Conserve  
Reading File }  
Pradeep Raval } 9-1-89 PRN

# CONSERV, Inc.

FIRST FLORIDA BANK, NA  
LAKELAND, FLORIDA

048425

63-728  
631

VENDOR NO.	DATE	CHECK NO.	AMOUNT
010250	8- 4-89	48425	\$ ***200.00

TWO HUNDRED AND 00/100 DOLLARS

PAY  
TO THE  
ORDER  
OF

DEPT OF ENVIRONMENTAL REGULATION

CONSERV, INC.  
*[Signature]*  
*[Signature]*

Mr. C.H. Fancy, Assistant Director  
Department of Air Resources Management  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Construction Permit Application for  
Existing Sulfur Storage and Handling Facility

Dear Mr. Fancy:

Enclosed are five (5) copies of the reference application. Also enclosed is Conserv's check no. 048425, dated 8-4-89, in the amount of \$ 200.00 to cover the application fee.

If there are any questions regarding this application, please contract me at (813) 425-1164.

Sincerely,

*Kenneth O. West*

Kenneth O. West  
Director of Environmental Affairs

cc: J.C. Gabriel  
Engr. file J:\SUL\_APPL.LTR

1031



**AGRIMONT GROUP**  
MONTEDISON AGRIBUSINESS

RECEIVED  
DER - MAIL ROOM

1989 AUG -9 PM 1:19

P. O. BOX 314  
NICHOLS, FLORIDA 33863  
TELEPHONE: (813) 425-1164  
TELEX: 522421  
TWIX: 810-867-0467

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

August 7, 1989

RECEIVED  
AUG 9 1989  
DER-BAQM

Mr. C.H. Fancy, Assistant Director  
Department of Air Resources Management  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Construction Permit Application for  
Existing Sulfur Storage and Handling Facility

Dear Mr. Fancy:

Enclosed are five (5) copies of the reference application. Also enclosed is Conserv's check no. 048425, dated 8-4-89, in the amount of \$ 200.00 to cover the application fee.

If there are any questions regarding this application, please contract me at (813) 425-1164.

Sincerely,

Kenneth O. West  
Director of Environmental Affairs

cc: J.C. Gabriel  
Engr. file J:\SUL\_APPL.LTR

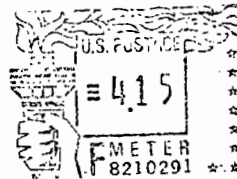
1031

cc: P. Raval  
A. Kerns, SW Dist





9508800000000000



**CONSERV**

Skillen

**AGRIMONT GROUP**

MONTEISON AGRIBUSINESS

P.O. BOX 314 • NICHOLS, FLORIDIA 33863

Mr. C.H. Fancy, Assistant Director  
Department of Air Resources Management  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

048425

REFERENCE NUMBER	DATE	GROSS AMOUNT	DISCOUNT PERCENTAGE	DISCOUNT TAKEN	NET PAYABLE
890108	8- 1-89	200.00			200.00

**CONSERV, INC.**

P.O. BOX 314 • NICHOLS, FLORIDA 33863 • TEL. (813) 425-1164

PLEASE DETACH CHECK BEFORE DEPOSITING

<b>CONSERV, Inc.</b>		FIRST FLORIDA BANK, NA LAKELAND, FLORIDA	048425	63-728 631
VENDOR NO.	DATE	CHECK NO.	AMOUNT	
010250	8- 4-89	48425	\$ ***200.00	
TWO HUNDRED AND 00/100 DOLLARS				
PAY TO THE ORDER OF	DEPT OF ENVIRONMENTAL REGULATION		CONSERV, INC.	
[REDACTED]			[Signature]	

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

#200 pd.  
8-9-89  
Receipt #117646

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



AC 53-168619

BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Molten Sulfur System [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

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

COMPANY NAME: Conserv, Inc. COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired)

SOURCE LOCATION: Street County Road 676 City Nichols

UTM: East 398410 North 3084200

Latitude 27° 52' 53" N Longitude 82° 01' 36" W

APPLICANT NAME AND TITLE: James C. Gabriel, Exec. Vice President & Plant Mgr.

APPLICANT ADDRESS: P. O. Box 314, Nichols, Florida 33863

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Conserv, Inc.

I certify that the statements made in this application for a Construction 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: James C. Gabriel  
James C. Gabriel, Exec. Vice President & Plant Mgr.  
Name and Title (Please Type)

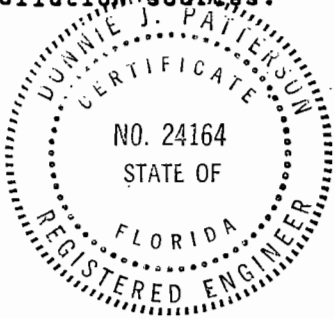
Date: 8/7/89 Telephone No. 813-425-1164

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 Donnie J. Patterson

Mr. Donnie J. Patterson, P.E.  
Name (Please Type)

Conserv, Inc.  
Company Name (Please Type)

P. O. Box 314, Nichols, Florida 33863  
Mailing Address (Please Type)

Florida Registration No. 24164 Date: 8/7/89 Telephone No. 813-425-1164

**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.

This is an existing facility with two (2) Molten Sulfur Storage pits, i.e., one railcar unloading pit (195 tons) and one truck unloading pit (165 tons), and two (2) Molten Sulfur Storage tanks,; one North Storage Tank (2,430 tons) and one South Storage tank (1,125 tons). Emissions are estimated at less than one ton per year.

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

Start of Construction NA Completion of Construction \_\_\_\_\_

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.)

No Control System

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

None

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

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

1. Is this source in a non-attainment area for a particular pollutant? NA  
a. If yes, has "offset" been applied? NA  
b. If yes, has "Lowest Achievable Emission Rate" been applied? NA  
c. If yes, list non-attainment pollutants. NA

2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. NA

3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NA

4. Do "Standards of Performance for New Stationary Sources" (NSPS)  
apply to this source? NA

5. Do "National Emission Standards for Hazardous Air Pollutants"  
(NESHAP) apply to this source? NA

H. Do "Reasonably Available Control Technology" (RACT) requirements apply  
to this source? NA

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.

# CONSERV'S MOLTEN SULFUR SYSTEM

( 189,108 TONS IN 1988 )  
MOLTEN SULFUR IN

RAILCAR UNLOADING PIT  
195 TONS

NORTH STORAGE TANK  
2,430 TONS

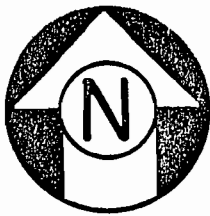
TRUCK UNLOADING PIT  
165 TONS

SOUTH STORAGE TANK  
1,125 TONS

MOLTEN SULFUR IN  
( 27,563 TONS IN 1988 )

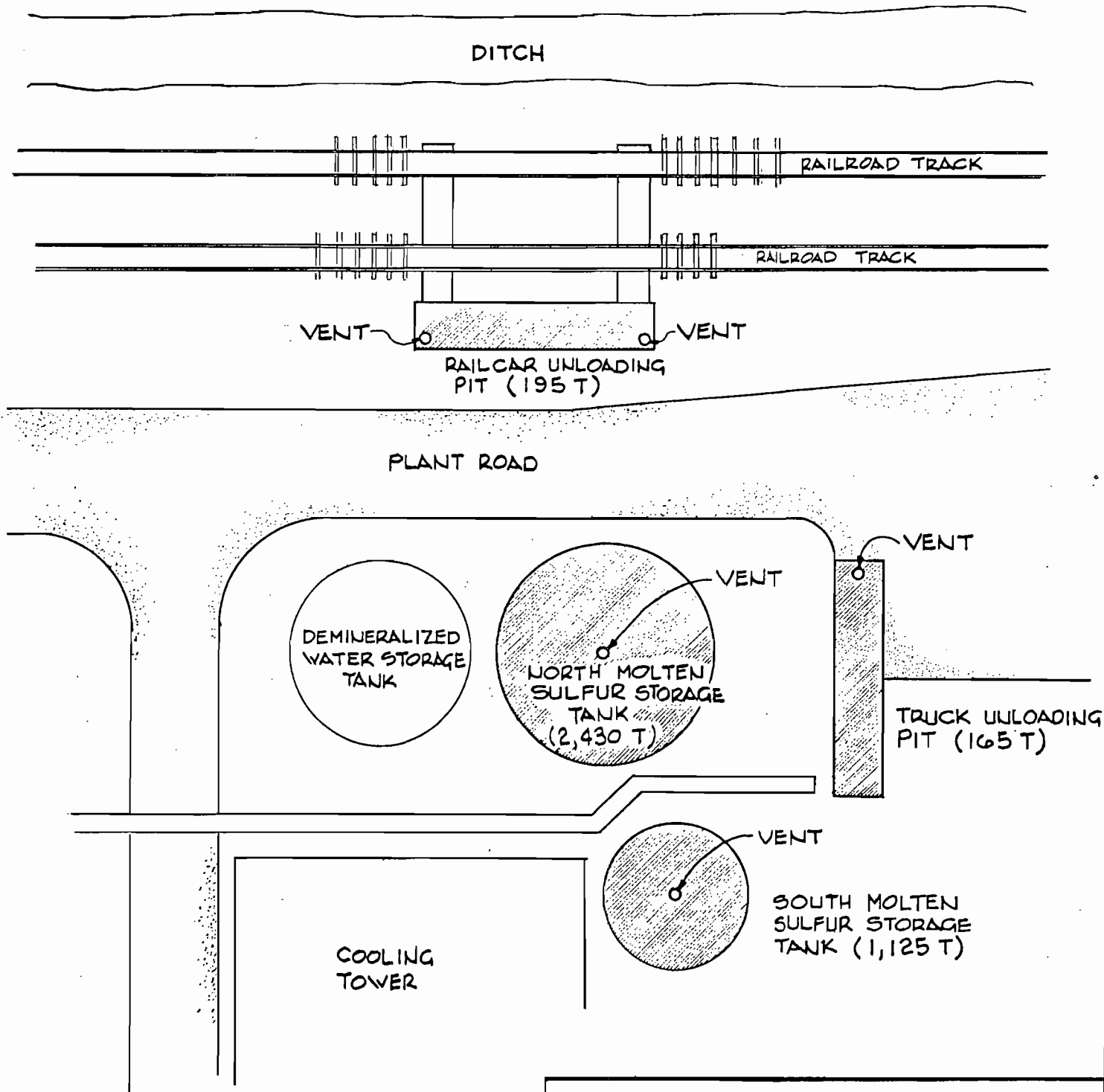
AVERAGE FEED RATE 530 TONS / DAY  
= 22.1 TONS PER HOUR

2,000 TPD SULFURIC ACID PLANT  
SULFUR FURNACE  
( 2100 °F )



# CONSERV'S SULFUR SYSTEM PLOT PLAN

SCALE: 1" = 30'



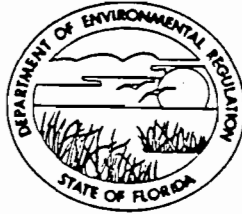
APPROVED	DATE	APPROVED	DATE	CHECKED BY	DATE
					8/4/89
APPROVED	DATE	APPROVED	DATE	DRAWN BY	
				C. BASEL	

NORTH STORAGE TANK



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2800 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Molten Sulfur System       New<sup>1</sup>    Existing<sup>1</sup>

APPLICATION TYPE:    Construction    Operation    Modification

COMPANY NAME: Conserv, Inc.      COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired)      N. Storage Tank

The North Storage Tank has a capacity of 2,430 short tons. It receives Molten Sulfur from both the railcar pit and the truck pit. The sulfur in this tank flows back to the truck pit and from the truck pit it feeds the Sulfuric Acid Plant.

Tank vent: Single 8" diameter, ventilation of the tank is natural, no forced draft. This tank always has Molten Sulfur in it.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Molten Sulfur	None	-	216,671 TPY	Annual Thru-Put

B. Process Rate, if applicable: (See Section V, Item 1)

- Total Process Input Rate (lbs/hr): NA
- Product Weight (lbs/hr): NA

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

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> 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	
Particulate	0.209	0.42	17-2.600(11)	NA	845	0.42	-

<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).

NORTH STORAGE TANK ( 2,145 TONS )

EMISSIONS CALCULATIONS:

PENZOIL MAXIMUM RESULTS:

0.072 LBS PART. / HR ( IDLE OPERATION )

0.209 LBS PART. / HR ( WHILE FILLING )

CONSERV'S SULFUR DELIVERY TO THE NORTH TANK IN 1988:

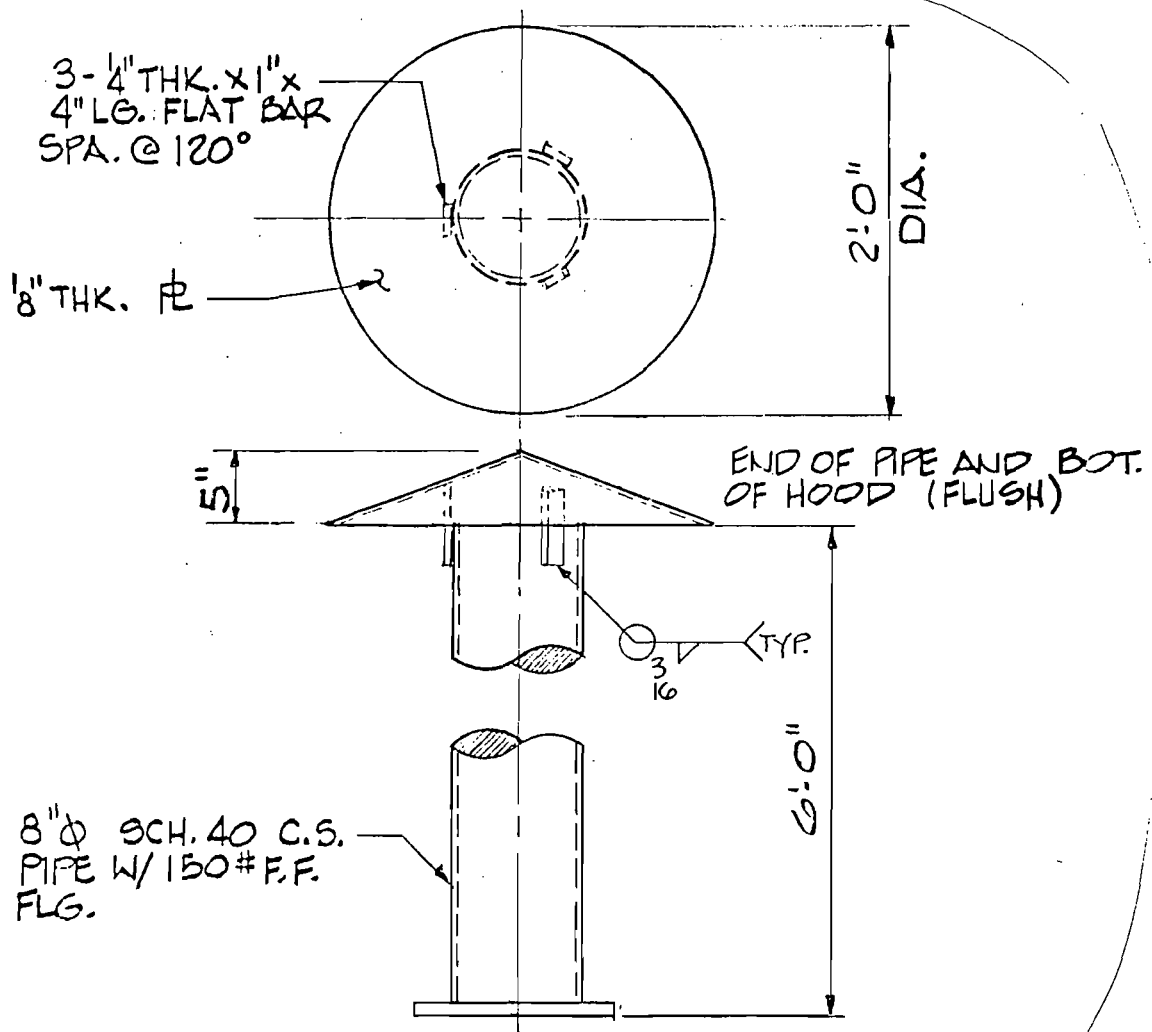
- 1,418 HOURS OF FILLING IN 1988 ( RAILCAR PIT )
- 147 HOURS OF FILLING IN 1988 ( TRUCK PIT )
- 1,418 HOURS + 147 HOURS = 1,565 TOTAL HOURS OF FILLING
- 8,760 HOURS PER YEAR - 1,565 HOURS OF FILLING = 7,195 HOURS OF IDLE OPERATION.

TOTAL EMISSIONS FROM THE NORTH TANK:

1,565 HOURS FILLING * 0.209 LBS PART. / HOUR	= 327 LBS PART.
7,195 HOURS IDLE * 0.072 LBS PART. / HOUR	= 518 LBS PART.
327 LBS PART. + 518 LBS PART.	= 845 LBS PART.
845 LBS PART. / 2,000 LBS PER TON	= 0.42 TONS

THE TOTAL YEARLY EMISSION FROM THE NORTH TANK:

0.42 TONS PER YEAR

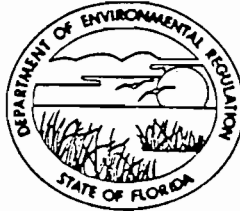


VENT STACK-DETAIL (2)

SOUTH STORAGE TANK

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Molten Sulfur System [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

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

COMPANY NAME: Conserv, Inc. COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) S. Storage Tank

The South Storage Tank has a capacity of 1,125 short tons. It receives Molten Sulfur only from the truck pit. The sulfur in this tank flows back to the truck pit and from the truck pit it feeds the Sulfuric Acid Plant.

Tank Vent: Single 8" diameter, ventilation of the tank is natural, no forced draft. This tank always has Molten Sulfur in it.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Molten Sulfur	None	-	216,671 TPY	Annual Thru-Put

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): NA

2. Product Weight (lbs/hr): NA

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

Name of Contaminant	Emission <sup>1</sup>		Allowed <sup>2</sup> 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	
Particulate	0.209	0.42	17-2.600(11)	NA	845	0.42	-

<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).

SOUTH STORAGE TANK ( 1,125 TONS )

EMISSIONS CALCULATIONS:

PENZOIL MAXIMUM RESULTS:

0.072 LBS PART. / HR ( IDLE OPERATION )

0.209 LBS PART. / HR ( WHILE FILLING )

CONSERV'S SULFUR DELIVERY TO THE SOUTH TANK IN 1988:

- 1,418 HOURS OF FILLING IN 1988 ( RAILCAR PIT )
- 147 HOURS OF FILLING IN 1988 ( TRUCK PIT )
- 1,418 HOURS + 147 HOURS = 1,565 TOTAL HOURS OF FILLING
- 8,760 HOURS PER YEAR - 1,565 HOURS OF FILLING = 7,195 HOURS OF IDLE OPERATION.

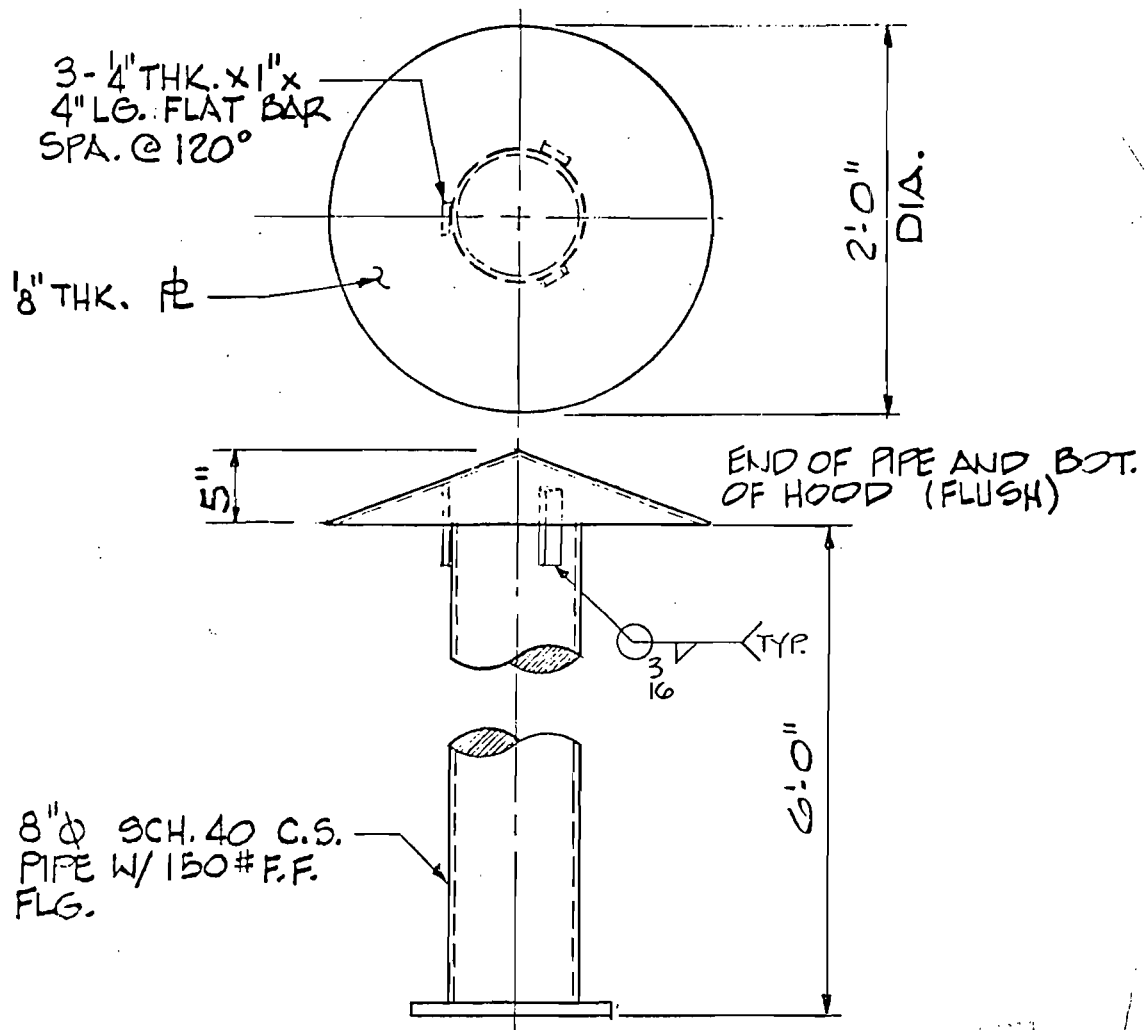
TOTAL EMISSIONS FROM THE SOUTH TANK:

1,565 HOURS FILLING * 0.209 LBS PART. / HOUR	= 327 LBS PART.
7,195 HOURS IDLE * 0.072 LBS PART. / HOUR	= 518 LBS PART.
327 LBS PART. + 518 LBS PART.	= 845 LBS PART.
845 LBS PART. / 2,000 LBS PER TON	= 0.42 TONS

THE TOTAL YEARLY EMISSION FROM THE SOUTH TANK:

0.42 TONS PER YEAR





VENT STACK-DETAIL (2)

RAILCAR UNLOADING PIT

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Molten Sulfur System [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

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

COMPANY NAME: Conserv. Inc. COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Railcar Pit

The Railcar unloading pit has a capacity of 195 short tons. It receives Molten Sulfur from railroad cars (100 tons ea.) It transfer Molten Sulfur to the North storage tank.

Pit Vents: Two 8" diameter, ventilation of the pit is natural, no forced draft. This pit always has Molten Sulfur in it.

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Molten Sulfur	None		189,108 TPY	Annual Thru-Put

B. Process Rate, if applicable: (See Section V, Item 1)

- Total Process Input Rate (lbs/hr): NA
- Product Weight (lbs/hr): NA

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

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> 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	
Particulate	0.209	0.41	17-2,600(11)	NA	825	0.41	

<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).

RAILCAR UNLOADING PIT ( 195 TONS)

EMISSIONS CALCULATIONS:

PENZOIL MAXIMUM RESULTS:

0.072 LBS PART. / HR ( IDLE OPERATION )

0.209 LBS PART. / HR ( WHILE FILLING )

CONSERV'S SULFUR DELIVERY TO THE RAILCAR PIT IN 1988:

- IN 1988 THE RAILCAR PIT RECEIVED 189,108 TONS OF SULFUR
- ONE RAILCAR HOLDS 100 TONS
- IT TAKES AN AVERAGE OF 45 MINUTES TO UNLOAD EACH RAILCAR

THEREFORE:

189,108 TONS / 100 TONS PER RAILCAR = 1,891 RAILCARS  
1,891 RAILCARS \* 45 MINUTES PER RAILCAR = 85,095 MINUTES  
85,095 MINUTES / 60 MINUTES PER HOUR = 1,418 HOURS

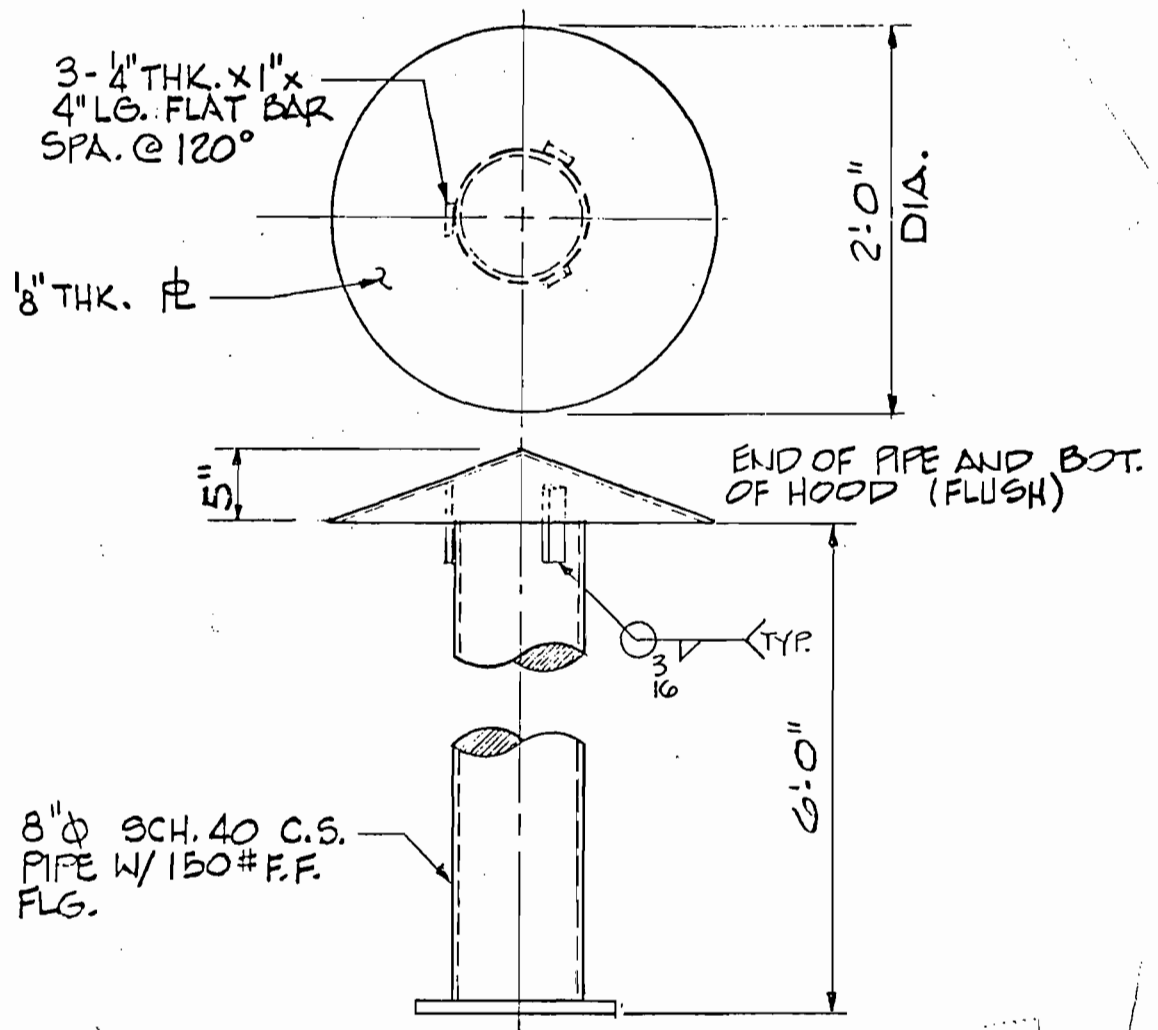
- 1,418 HOURS OF FILLING IN 1988
- 8,760 HOURS PER YEAR - 1,418 HOURS OF FILLING = 7,342 HOURS OF IDLE OPERATION.

TOTAL EMISSIONS FROM THE RAILCAR PIT:

1,418 HOURS FILLING \* 0.209 LBS PART. / HOUR = 296 LBS PART.  
7,342 HOURS IDLE \* 0.072 LBS PART. / HOUR = 529 LBS PART.  
296 LBS PART. + 529 LBS PART. = 825 LBS PART.  
825 LBS PART. / 2,000 LBS PER TON = 0.41 TONS

THE TOTAL YEARLY EMISSION FROM THE RAILCAR PIT:

0.41 TONS PER YEAR



VENT STACK-DETAIL (2)

TRUCK UNLOADING PIT

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Molten Sulfur System [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

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

COMPANY NAME: Conserv, Inc. COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Lime  
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Truck Pit

The Truck unloading pit has a capacity of 165 short tons. It receives Molten Sulfur from the North and South storage tanks as well as from trucks. The truck pit feeds the Sulfuric Acid Plant.

Pit Vent: Single 8" diameter, ventilation of the pit is natural, no forced draft. This pit always has Molten Sulfur in it.



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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Molten Sulfur	None	-	216,671 TPY	Annual Thru-Put

B. Process Rate, if applicable: (See Section V, Item 1)

- Total Process Input Rate (lbs/hr): NA
- Product Weight (lbs/hr): NA

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

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate	0.209	0.33	17-2.600(11)	NA	650	0.33	-

<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).

TRUCK UNLOADING PIT ( 165 TONS )

EMISSIONS CALCULATIONS:

PENZOIL MAXIMUM RESULTS:

0.072 LBS PART. / HR ( IDLE OPERATION )

0.209 LBS PART. / HR ( WHILE FILLING )

CONSERV'S SULFUR DELIVERY TO THE TRUCK PIT IN 1988:

- IN 1988 THE TRUCK PIT RECEIVED 27,563 TONS OF SULFUR
- ONE TRUCK HOLDS 25 TONS
- IT TAKES AN AVERAGE OF 8 MINUTES TO UNLOAD EACH TRUCK

THEREFORE:

27,563 TONS / 25 TONS PER TRUCK = 1,103 TRUCKS  
1,103 TRUCKS \* 8 MINUTES PER TRUCK = 8,820 MINUTES  
8,820 MINUTES / 60 MINUTES PER HOUR = 147 HOURS

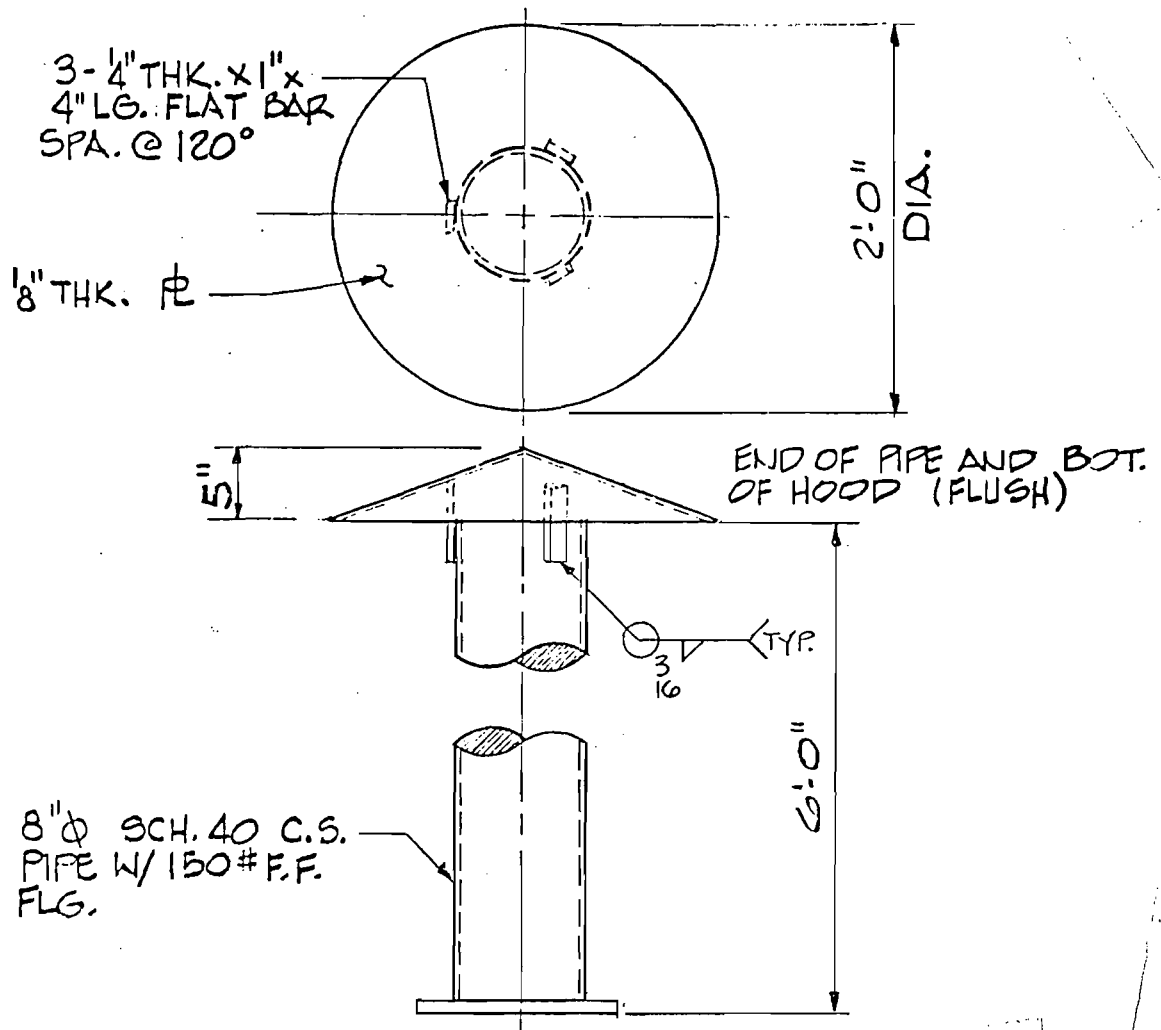
- 147 HOURS OF FILLING IN 1988
- 8,760 HOURS PER YEAR - 147 HOURS OF FILLING = 8,613 HOURS OF IDLE OPERATION.

TOTAL EMISSIONS FROM THE TRUCK PIT:

147 HOURS FILLING \* 0.209 LBS PART. / HOUR = 31 LBS PART.  
8,613 HOURS IDLE \* 0.072 LBS PART. / HOUR = 620 LBS PART.  
31 LBS PART. + 620 LBS PART. = 651 LBS PART.  
651 LBS PART. / 2,000 LBS PER TON = 0.33 TONS

THE TOTAL YEARLY EMISSION FROM THE TRUCK PIT:

0.33 TONS PER YEAR



VENT STACK-DETAIL (2)

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

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

E. Fuels

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

\*Units: Natural Gas--MMCF/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 NA Maximum \_\_\_\_\_

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

NA  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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

SECTION IV: INCINERATOR INFORMATION

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 (lbs/hr)							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/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: \_\_\_\_\_

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

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

#### SECTION V: SUPPLEMENTAL REQUIREMENTS

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**

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
NA	

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

Yes  No

Contaminant	Rate or Concentration
NA	

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

Contaminant	Rate or Concentration
NA	

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

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 Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

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. NA

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. NA

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. NA

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. NA

a. Control Device:

b. Operating Principles:

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

d. Capital Costs:

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: NA

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

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

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

A. Company Monitored Data NA

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 NA

- 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 NA

- 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. Applicants Maximum Allowable Emission Data NA

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

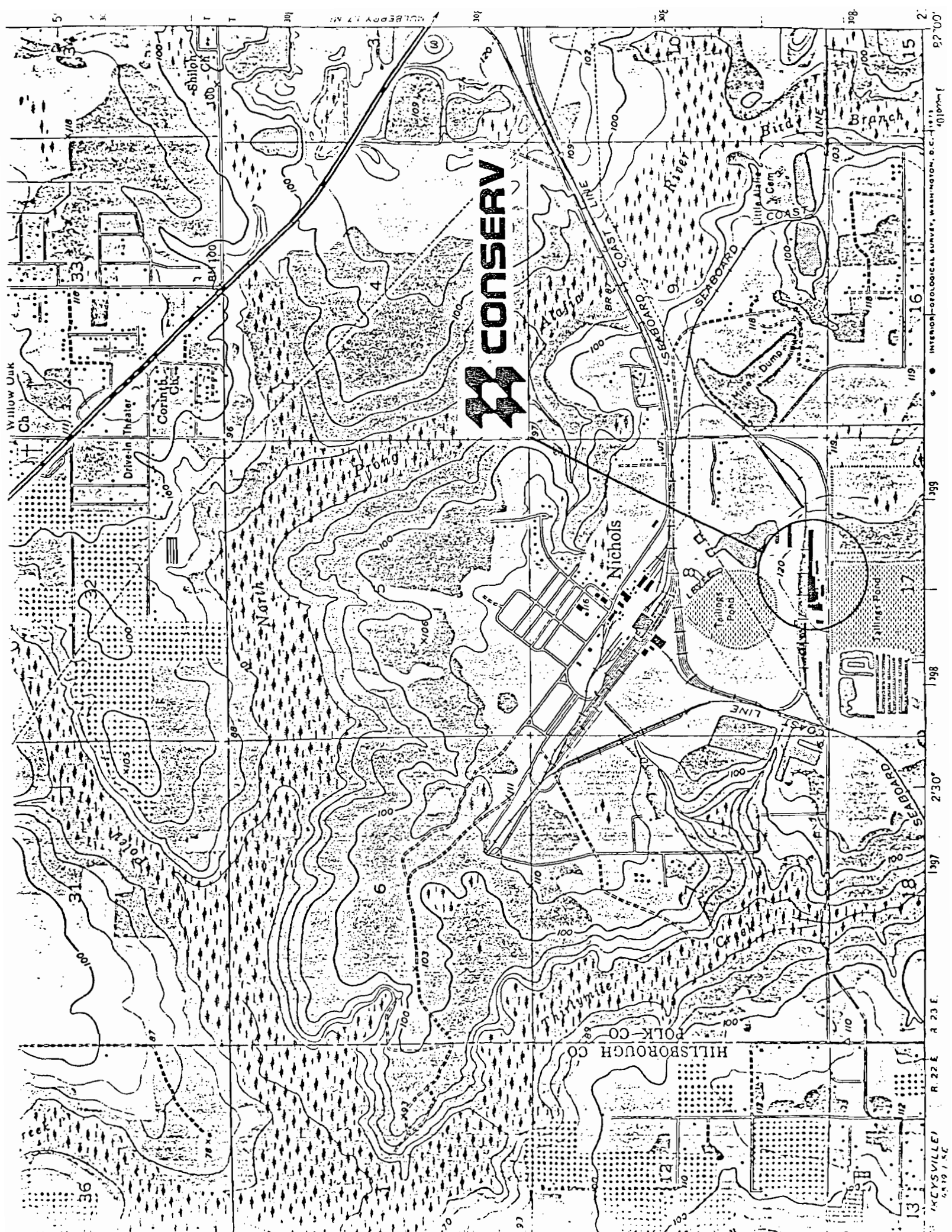
E. Emission Data Used in Modeling NA

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. NA

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. NA

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. NA



**CONSERV**



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 2' 30" 2' 30" 2' 30" 2' 30" 2' 30"  
 R. 22 E. R. 23 E.  
 T. 36 N. T. 37 N. T. 38 N. T. 39 N. T. 40 N.  
 1997 1998 1999  
 U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C. 20508  
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