

Check Sheet

Company Name: Rayster Phosphates, Inc
Permit Number: AC 41-176524
PSD Number: _____
Permit Engineer: _____

Application:

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

Intent:

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

Final

Determination:

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

Post Permit Correspondence:

- Extensions/Amendments/Modifications
- Other



The Bradenton Herald

102 MANATEE AVE. WEST, P.O. BOX 921
BRADENTON, FLORIDA 34206
TELEPHONE (813) 748-0411

PUBLISHED DAILY
BRADENTON, MANATEE COUNTY, FLORIDA

RECEIVED

FEB 18 1991

DER - BAQM

STATE OF FLORIDA
COUNTY OF MANATEE:

Before the undersigned authority personally appeared Linda L. Rikke, who on oath says that she is the Legal Advertising Clerk and the official representative of the Publisher of The Bradenton Herald, a daily newspaper published at Bradenton in Manatee County, Florida, with the express, limited authority to execute this affidavit for the purpose of establishing proof of publication of the public or legal notice and advertisement in the form attached hereto; that the attached copy of advertisement, being a legal advertisement in the matter of

State of Florida/Notice of Intent

in the Court,

was published in said newspaper in the issues of

2/8, '91

Affiant further says that the said The Bradenton Herald is a newspaper published at Bradenton, in said Manatee County, Florida, and that the said newspaper has heretofore been continuously published in said Bradenton, Manatee County, Florida, each day and has been entered as second class mail matter at the post office in Bradenton, in said Manatee County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and the affiant further says that she 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 the said newspaper.

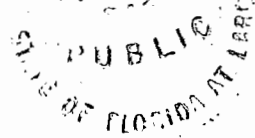
Sworn to and subscribed before me this

13th day of February

A.D. 19 91

(SEAL) Notary Public

Notary Public, State of Florida at Large
My Commission Expires July 24, 1991



cc: M. Baig
B. Shomas, SW Dist.
G. Bruins, MC HD

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 Royster Phosphates, Inc., P.O. Box 1329, Palmetto, Florida 34220, for the existing molten sulfur storage and handling system consisting of five storage tanks, located at the Piney Point terminal facility in Palmetto, Manatee 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 34399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

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

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

Royster Phosphates, Inc.

13300 U.S. Hwy. 41 North
Palmetto, Florida 34221

Fold at line over top of envelope to the right
of the return address

CERTIFIED

P 377 462 206

MAIL

POSTAGE

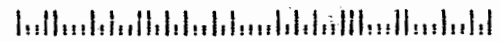
FEB 13 91

FLA.

3303033

2.19

Mr. Barry Andrews
Bureau of Air Regulation
FL DER
2600 Blair Stone Road
Tallahassee, Fl 32399-2400



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:

Dept. of Environmental Affairs
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Dept. of Environmental Affairs
Southwest District Office
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347
Manatee County Pollution
Control Department
410 6th Avenue East
Bradenton, Florida 34208

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

2/8/91

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. Gary L. Dahms V.P. & Gen. Mgr. Royster Phosphates, Inc. P.O. Box 1329 Palmetto, FL 34220	4. Article Number P 407 853 138
Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
Always obtain signature of addressee or agent and DATE DELIVERED .	
5. Signature - Addressee <i>C. Berube</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery <i>2/1/91</i>	

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

P 407 853 138

RECEIPT FOR CERTIFIED MAIL

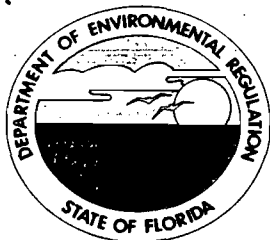
NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

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

Sent to Gary L. Dahms	
V.P. & Gen. Mgr.	
Street and No. Royster Phosphates, Inc.	
P.O. Box 1329	
State and Zip Code Palmetto, FL 34220	
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: 2/1/91 AC41-176524	

PS Form 3800, June 1985

File Copy



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

February 1, 1991

Carol M. Browner, Secretary

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Gary L. Dahms
Vice President & General Mgr.
Royster Phosphates, Inc.
Post Office Box 1329
Palmetto, Florida 34220

Dear Mr. Dahms:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed after-the-fact construction permit to Royster Phosphates, Inc. for the molten sulfur storage and handling system at the Piney Point terminal facility in Manatee County, Florida.

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

Sincerely,

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

CHF/MB/plm

Attachments

- c: B. Thomas, SW District
- Manatee County, PCD
- R. Mayko, P.E.

Ready File } 2-1-91 RR
Minza Baig }

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Royster Phosphates, Inc.
Post Office Box 1329
Palmetto, Florida 34220

DER File No. AC 41-176524

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, Royster Phosphates, Inc., applied on February 20, 1990, to the Department of Environmental Regulation for a construction permit for the existing molten sulfur storage and handling system located at the Piney Point terminal facility in Manatee 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

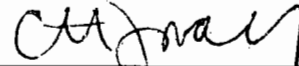
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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 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 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
Manatee County PCD
R. Mayko, 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 2-1-91.

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.

~~Patricia A. [Signature]~~ 2-1-91
Clerk Date

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

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Royster Phosphates, Inc., P. O. Box 1329, Palmetto, Florida 34220, for the existing molten sulfur storage and handling system consisting of five storage tanks, located at the Piney Point terminal facility in Palmetto, Manatee 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

Manatee County Pollution Control Dept.
410 6th Avenue East
Bradenton, Florida 34208

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

Technical Evaluation
and
Preliminary Determination

Royster Phosphates, Inc.
Piney Point Terminal
Manatee County
Palmetto, Florida

Molten Sulfur Storage and Handling System
Permit Number: AC 41-176524

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

February 1, 1991

I. Application

A. Applicant

Royster Phosphates, Inc. - Piney Point Terminal
Post Office Box 1329
Palmetto, Florida 34220

B. Project and Location

The applicant, Royster Phosphates, Inc. (RPI), proposes to permit the existing molten sulfur storage and handling system at the Piney Point molten sulfur terminal in Palmetto, Manatee County, Florida.

Latitude/Longitude of this facility are 27° 37' 58" North/
82° 32' 08" West.

C. Facility Category

The Piney Point facility is minor 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. 5169, Wholesale Trade of Chemicals and Allied Products.

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

RPI applied for a construction permit on February 20, 1990 and the application was deemed complete on November 13, 1990.

II. Project Description

The Piney Point molten sulfur storage and handling terminal consists of a steam heated "pit" and a storage tank, which is 28 feet in diameter, 24 foot sidewalls and has a capacity of 800 tons. The storage tank has 3 vents 180 degrees apart and one vent in the center; all vents are fitted with rain hoods. The sulfuric acid plant has a permitted capacity of 2000 tons/day which consumes approximately 667 tons of molten sulfur per day.

Molten sulfur is received in tank trucks usually 20 tons per truck and 34 truckloads per day. Elemental sulfur is also received via railcar which requires application of heat before it can be unloaded. Each rail car has a capacity of 100 tons and about 7 railcars of molten sulfur is unloaded each day. The daily throughput of molten sulfur is 670 tons and an annual throughput of 243,100 tons.

III. Rule Applicability

The existing Piney Point terminal facility is minor 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 Manatee County, an area designated as attainment for all 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 (PSD) - Preconstruction Review Requirements, because it is minor.

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

The project is subject to F.A.C. Rule 17-2.600(11), Specific Emission Limiting and Performance Standards for Sulfur Storage and Handling Facilities, which lists specific operational emission reduction procedures that are to be followed. Visible emissions (VE) will be limited to 10% opacity. The sources are not subject to a weight emission limiting standard, in accordance with F.A.C. Rule 17-2.600(11)(e), since the sulfur particulate emissions from each individual source are less than 1 ton per year.

The project is subject to F.A.C. Rule 17-2.620, General Pollutant Emission Limiting Standard, 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, namely truck unloading, railcar unloading, molten sulfur receiving "pit" and at each vent of the sulfur storage tank. Such tests shall be conducted within 120 days of issuance of this permit. The visible emissions tests shall be conducted during entire unloading of at least one truck and one railcar or at least 60 minutes, whichever is greater, along with simultaneous visible emissions test to be conducted at the sulfur receiving pit and at each vent of the sulfur storage tank. The Department may require a retest annually, if deemed necessary, or at the time of permit renewal.

IV. Source Impact Analysis

A. Emission Limitations

The maximum emissions from the molten sulfur storage and handling system are estimated to be as follows, based on tests at similar facility:

<u>PM/PM₁₀</u>	<u>SO₂</u>	<u>H₂S</u>	<u>TRS</u>
0.14 lbs/hr and 0.61 tons/yr	1.2 tons/yr	0.28 tons/yr	0.79 tons/yr

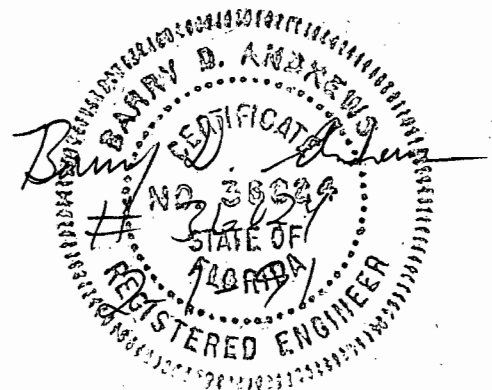
Visible emission (VE) will be limited to 10% opacity during the truck and railcar unloading and storage operations.

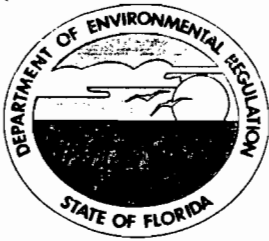
B. Air Quality Impacts

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 Royster Phosphates, Inc., the Department has reasonable assurance that the existing Piney Point molten sulfur storage and handling terminal, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.





Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

Royster Phosphates, Inc.
Piney Point Terminal
Post Office Box 1329
Palmetto, FL 34220

Permit Number: AC 41-176524

Expiration Date: Feb. 28, 1992

County: Manatee

Latitude/Longitude: 27°37'58"N
82°32'08"W

Project: Piney Point Terminal/
Molten Sulfur Storage & Handling
System

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

For the permitting of an existing Piney Point molten sulfur storage and handling facility consisting of a railcar and truck unloading system, one molten sulfur receiving "pit," and one molten sulfur storage tank having a capacity of 800 tons. The sulfuric acid plant at this facility has a permitted capacity of 2000 tons/day.

The molten sulfur receiving and storage system is designed to handle a maximum of 667 tons/day. This facility can unload a maximum of 34 trucks per day (each truck has a capacity of 20 tons) and simultaneously unload 7 railcars per day (each railcar has a capacity of 100 tons). The maximum annual throughput at this facility is 243,100 tons of molten sulfur. The Piney Point Terminal is located on U.S. Highway 41 North, 10 miles North of Palmetto, in Manatee County, Florida.

The latitude/longitude of this facility is 27° 37' 58" N/82° 32' 08"W.

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

PERMITTEE:
Royster Phosphates, Inc.

Permit Number: AC 41-176524
Expiration Date: February 28, 1992

Attachments are as follows:

1. Royster Phosphates, Inc., application received February 20, 1990.
2. DER's letter dated March 19, 1990.
3. RPI's response received June 11, 1990.
4. DER's letter dated June 21, 1990.
5. RPI's response received November 13, 1990.

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.

PERMITTEE:
Royster Phosphates, Inc.

Permit Number: AC 41-176524
Expiration Date: February 28, 1992

GENERAL CONDITIONS:

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.

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.

PERMITTEE:
Royster Phosphates, Inc.

Permit Number: AC 41-176524
Expiration Date: February 28, 1992

GENERAL CONDITIONS:

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case 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:
Royster Phosphates, Inc.

Permit Number: AC 41-176524
Expiration Date: February 28, 1992

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. Royster Phosphates, Inc.'s Piney Point molten sulfur storage and handling terminal shall be allowed to operate continuously (i.e. 8760 hours/year).

2. The maximum molten sulfur throughput rate shall neither exceed 667 long tons per day (LTPD), nor 243,100 long tons per year (LTPY).

3. Visible emissions (VE) shall not exceed 10% opacity from any source in the molten sulfur system, including the truck and railcar unloading operations.

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].

6. Initial compliance tests for visible emissions shall be conducted within 90 days of issuance of this permit in accordance with the July 1, 1988, version of 40 CFR 60 Appendix A, using EPA Method 9. The visible emissions tests shall be conducted during

PERMITTEE:
Royster Phosphates, Inc.

Permit Number: AC 41-176524
Expiration Date: February 28, 1992

SPECIFIC CONDITIONS:

entire unloading of at least one truck and one railcar, or for at least 60 minutes, whichever is greater, along with (simultaneous) visible emissions test to be conducted at the sulfur receiving "pit" and at each vent of the sulfur storage tank. The minimum requirements for stack sampling facilities, source sampling and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A. The Department may require a retest annually, if deemed necessary, or at the time of permit renewal.

7. Any change in the method of operation, equipment or operating hours, shall be submitted to the Department's Bureau of Air Regulation (BAR) office, the Department's Southwest District office, and the Department of Manatee County Pollution Control Department 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:

PM/PM ₁₀	SO ₂	H ₂ S	TRS
0.14 lbs/hr and 0.61 tons/yr	1.2 tons/yr	0.28 tons/yr	0.79 tons/yr

9. A minimum of 15 days prior written notification of the compliance tests shall be given to the Department's Southwest District office. The compliance test results shall be submitted to the Department's Southwest 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 Department's BAR prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

11. An application for an operation permit must be submitted to the Department'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

PERMITTEE:
Royster Phosphates, Inc.

Permit Number: AC 41-176524
Expiration Date: February 28, 1992

SPECIFIC CONDITIONS:

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. Rules 17-4.055 and 17-4.220).

Issued this _____ day
of _____; 1991

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION**

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

Attachments Available Upon Request

Royster Phosphates, Inc.

13300 U. S. Hwy. 41 North
Palmetto, Florida 34221
(813) 722-4555

November 6, 1990

RECEIVED
NOV 13 1990
DER-BAQM

Mr. C.H. Fancy, P.E., Chief
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Manatee County A.P.
Sulfur Storage & Handling System
Permit No. AC41-176524

Dear Mr. Fancy:

Please find enclosed the responses to your request for more information.

Request One

The flow from all three vent pipes, namely, two peripheral 24" diameter vent pipes and the one center 48" diameter vent pipe is 18 ft³/min as per attachment three. Please provide a more reasonable flow estimate from all the vent pipes mentioned above.

Response One

The flow of 18 Ft³/min utilized in our application was an estimated flow based upon work performed by Enviroplan at Penzoil's storage facility in Tampa, Florida.

In response to your request for a more reasonable estimate Royster purchased 0.05 - 0 - 0.25 manometer. This manometer was utilized inconjunction with a standard pitot tube in attempts to determine actual air flow from the peripheral and center vents.

Repeated attempts to make velocity determinations failed to result in a sustainable positive outflow of air. Both positive and negative flows were monitored, with net average flow so small that velocity determinations could not be made based upon standard formulae.

Royster therefore requests reconsideration of the previously considered estimates as they seem to substantially overestimate actual flows, but allow for emission estimates that may overstate actual emissions.

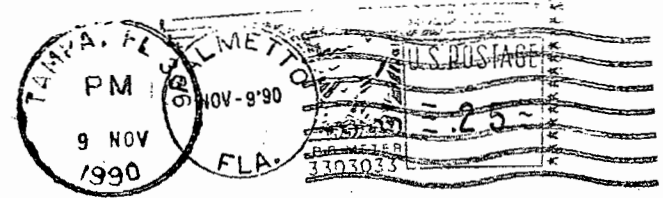
Royster would gratefully accept the Department's guidance on methodologies to correctly determine the actual flow rates.

Request Two

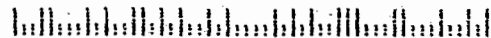
The Department has reason to believe that Sulfur storage and handling facilities emit PM10, TP, VOC, H2S, and SO2 emissions besides the

Royster Phosphates, Inc.

13300 U.S. Hwy. 41 North
Palmetto, Florida 34221



Mr. C. H. Fancy, P.E., Chief
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400



C. H. Fancy
-page two-

SP(sulfur particulates). Accordingly, submit emissions estimates for all these pollutants for the pit and storage tank loading operations.

Response Two

Truck and railcar unloading methods cause a net inflow of external air into the sulfur vessel as unloading occurs. As sulfur is withdrawn from the vessel external air is needed to avoid creation of a vacuum in the vessels. Therefore emissions should not occur at unloading points.

Your referenced "other pollutants" may be generated from the sulfur pit and/or storage tank vents. Royster would estimate these emissions to be:

SO ₂	1.2 tons/yr
H ₂ S	0.28 tons/yr
TRS	0.79 tons/yr

These estimates are based upon data generated by TRC Environmental Consultants Inc., in a report entitled Preliminary Report on Emissions from Tank Number Four at Sulfur Terminal Co. Inc., Tampa, Florida; TRC Project 2SOZE51 30 December 1983. This data was gathered from a 10,000 ton storage tank with a continuous air purge system. Royster's tank is an 800 ton storage capacity, these estimates probably overestimate actual emissions at the Piney Point facility.

Request Three

What is the maximum daily and annual molten sulfur throughput for this facility? What is the maximum amount of sulfur each truck and railcar can deliver?

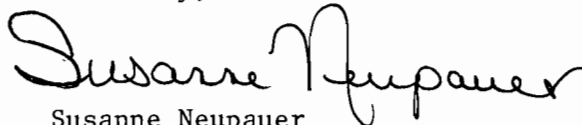
Response Three

Based upon the maximum permitted production capacity of the sulfuric acid plant at 2000 tons per day, daily throughput would be 666 tons. Annual maximum throughput would be 243,090 tons.

Delivery of sulfur by truck at 20 tons per vehicle would require 34 truckloads per day. Railcar capacity at 100 tons per car would result in 7 railcars per day.

This response will hopefully result in completing the application requirements.

Sincerely,



Susanne Neupauer
Environmental Supervisor

SN:dam

Attachment

cc: W.C. Thomas, SW District
Dan Harris
Ivan Nance
File

M. Bailey

FLORIDA DEP AIR PERMITTING SUMMARY SHEET
CITY OF TALLAHASSEE - PURDOM POWER PLANT UNIT 8
250 MEGAWATT GAS -FIRED COMBUSTION TURBINE
HEAT RECOVERY STEAM GENERATOR
PUBLIC MEETING - WAKULLA COUNTY
OCTOBER 30, 1997

The City of Tallahassee submitted an application to construct a 250 megawatt (MW) combined cycle electrical power unit at the Sam O. Purdom power plant in St. Marks, Wakulla County. The location is approximately 0.4 miles Northeast of the St. Marks Wilderness Area.

The main unit is a General Electric MS7231 FA gas-fired combustion turbine which directly generates approximately 160 MW of electricity. A separate heat recovery steam generator will use the waste exhaust heat from the gas turbine to make steam. The steam will be used to generate an additional 90 MW of electricity in a steam turbine generator. The project includes a new 200 foot stack and a cooling tower. Existing conventional steam Units 5 and 6 will be shut down.

The key air emissions will consist of nitrogen oxides, carbon monoxide, particulate matter, and sulfur dioxide. Air pollution control will be accomplished through "dry-low NOx combustion," and use of natural gas with low sulfur diesel oil as backup. With the shutdown of Units 5 and 6, the allowable emissions will be substantially below the previous permitted emissions for the entire facility. The City has also accepted a cap on emissions so that actual sulfur dioxide and nitrogen oxide emissions from all units combined will be less than or equal to emissions during the past two years, despite a significant increase in power generation. The details of the emission limits and control technology will be explained in more detail by the next speakers.

The Florida Department of Environmental Protection (DEP) is the permitting authority for the air construction permit under Chapter 403 of the Florida Statutes, Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code, and delegation of authority from EPA for the Prevention of Significant Deterioration (PSD) of Air Quality under 40 CFR 52.21(u). This permitting review is being conducted concurrently with the Site Certification review under Power Plant Siting Act. However, a final action on this permit application will not occur until after the Governor and Cabinet have considered the project.

The DEP Bureau of Air Regulation in Tallahassee received the four-volume Site Certification application from the City on March 17 of this year. We distributed the air permitting portion to the EPA Region 4 in Atlanta, the

Department of Interior, Fish and Wildlife Service, Air Quality Branch in Denver, Colorado, and the DEP Northeast District Office in Pensacola. The City also copied and invited comments from the USDA Forest Service and the Refuge Manager at St. Marks.

The Technical Evaluation and Preliminary Determination and the draft air permit were completed and sent to the applicant on July 1 along with the Department's Intent to Issue. Copies were provided to the previously - mentioned agencies. Copies were made available for public inspection at DEP offices in Tallahassee and Pensacola.

The Department's Notice of Intent to Issue was published by the City in the Tallahassee Democrat on August 7. It provided a 30 day period for anyone to submit comments on the Department's proposed action or to request this public meeting. It also provided a 14 day period for anyone whose substantial interests were affected by the project to file a petition for an administrative hearing. We have not received any comments in response to the Public Notice except for a request by Wakulla County to hold this public meeting.

This public meeting was noticed on September 25 and October 23 in The Wakulla News and on September 30 and October 28 in the Tallahassee Democrat. The City also noticed the Open House twice in each newspaper. Copies of the Intent to Issue package are available at this meeting. If we run out, we will be happy to make you copies and send them to you. The application and entire file are available for public review and copying at our offices in Tallahassee. The Department will accept additional comments today and until next Friday, November 7, 1997.

DEP will consider comments specifically related to air emissions and control which are submitted here and over the next week. These comments as well as the recommendations of the administrative law judge in the separate site certification hearing, and, of course, the decision of the Governor and Cabinet will be reviewed when issuing the final PSD permit decision.

Comments may be submitted at this public meeting or sent to:

CONTACT: A. A. Linero, P.E Administrator
New Source Review Section
Bureau of Air Regulation
2600 Blair Stone Road., M.S. 5505
Tallahassee, Florida 32399
Tel: (850)488-1344
Fax: (850)922-6979
Internet: Linero_A@DEP.STATE.FL.US

AGENCY CONTACTS
Tallahassee Purdom Unit 8 Permit Evaluation

Following is a list of contacts who can assist with questions regarding air permitting related to the Tallahassee Purdom Unit 8 project:

ADMINISTRATOR:

A. A. Linero, P.E.
New Source Review Section, Tallahassee
Tel: (850)488-1344

AIR PERMITTING:

Marty Costello, P.E.
New Source Review Section, Tallahassee
Tel: (850)488-1344

AIR MODELING:

Cleve Holladay, Meteorologist
New Source Review Section, Tallahassee
Tel: (850)488-1344

AIR COMPLIANCE:

Caroline W. Salmon
N. W. District, Pensacola
Tel: (850)444-8364

LEGAL CONTACTS:

Chip Collette, Attorney (Site Certification)
Jeff Brown, Attorney (Permits - NW District)
Office of General Counsel, Tallahassee
Tel: (850)488-9730

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 fees 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:
 Gary L. Dahms, V.P.
 Royden Phosphates Inc.
 P.O. Box 1329
 Palmetto, FL 34220

4. Article Number
 P256 395 203

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

5. Signature - Addressee
 X Cynthia Beuse

Always obtain signature of addressee or agent and DATE DELIVERED.

6. Signature - Agent
 X

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

7. Date of Delivery
 10/15

PS Form 3811, Apr. 1989

*U.S.G.P.O. 1989-238-815

DOMESTIC RETURN RECEIPT

P 256 395 203

RECEIPT FOR CERTIFIED MAIL

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

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

PS Form 3800, June 1985

Sent to Gary Dahms	
Street and No. Royden Phos	
P.O., State and ZIP Code P.O. Box 1329	
Postage Palmetto, FL	\$
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 10-11-90 AC 41-1765 24	



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

October 4, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gary L. Dahms, Vice President
Royster Phosphates, Inc.
P. O. Box 1329
Palmetto, Florida 34220

Re: Manatee County - A.P.
Royster Phosphates, Inc.
Sulfur Storage & Handling System
Permit No. AC 41-176524

Dear Mr. Dahms:

On June 21, 1990, the Bureau of Air Regulation mailed you a letter (copy attached) requesting more information on the above referenced project. To this date we have not received a response to our letter.

Accordingly, please submit a response to our letter within 30 days of receipt of this letter, or the Department will consider denial of your request for the permit.

Your cooperation in this matter will be appreciated.

Sincerely,

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

CHF/MB/plm

c: B. Thomas, SW Dist.
J. Bruins, MCPCD
R. Mayko, P.E.

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: Gary L. Dahms, VP & GM Ruyter Phosphates, Inc. P.O. Box 1329 Palmetto, FL 34220	4. Article Number P 256 396 108
	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 <i>Jana Fields</i>	8. Addressee's Address (ONLY if requested and fee paid)
7. Date of Delivery <i>29 Jul 90</i>	

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

P 256 396 108

RECEIPT FOR CERTIFIED MAIL

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

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

Sent to	<i>Gary Dahms</i>
Street and No.	<i>Ruyter Phos.</i>
P.O., State and ZIP Code	<i>P.O. Box 1329</i>
Postage	<i>Palmetto, FL</i>
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	<i>6-29-90</i>
	<i>AC 41-176524</i>

PS Form 3800, June 1985



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

June 21, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gary L. Dahms
Vice President and General Manager
Royster Phosphates, Inc.
P. O. Box 1329
Palmetto, Florida 34220

Re: Manatee County - A.P.
Royster Phosphates, Inc.
Sulfur Storage & Handling System
Permit No. AC 41-176524

Dear Mr. Dahms:

The Department has received your letter on June 11, 1990 which was the response to our initial incompleteness letter dated March 19, 1990. Your application is still deemed incomplete. Please submit the following information.

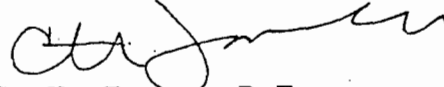
- (1) The flow from all three vent pipes, namely, two peripheral 24" diameter vent pipes and the one center 48" diameter vent pipe (storage tank) is 18 ft³/min as per attachment three. Please provide a more reasonable flow estimate from all the vent pipes mentioned above.
- (2) The Department has reason to believe that sulfur storage and handling facilities emit PM₁₀, TP, VOC, H₂S, and SO₂ emissions besides the SP (sulfur particulates). Accordingly, submit emission estimates for all these pollutants for the railcar & truck unloading, the pit and storage tank loading operations.
- (3) What is the maximum daily and annual molten sulfur throughput for this facility? What is the maximum amount of sulfur each truck and railcar can deliver?

Processing of your application will continue as soon as the above requested information has been received.

Mr. Gary L. Dahms
Page 2
June 21, 1990

If you have any questions, please contact Mr. Mirza P. Baig at
(904)488-1344.

Sincerely,



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

CHF/MB/plm

c: Bill Thomas, SW District
Jack Bruins, MCPD
Robert E. Mayko, P.E.

Royster Phosphates, Inc.

P. O. Box 1329
Palmetto, Florida 34220
(813) 722-4555

May 17, 1990

RECEIVED
JUN 11 1990
DER-BAQM

Mr. C. H. Fancy, Chief
Bureau of Air Regulation
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Re: Sulfur Storage and Handling System
Permitting AC 41-176524

Dear Mr. Fancy:

Please find the following submittal in response to your request for further information in conjunction with the above referenced permit.

Request #1

Please explain the basis for calculating the sulfur particulate emissions from the storage tank.

Response #1

Sulfur particulate emission estimates were based on information obtained from John B. Koogler, Principle with Koogler and Associates, Gainesville, Fl., for typical flow rates for a vented molten sulfur storage tank (18 ft³/min) and typical sulfur particle loading (0.3 gr/ft³).

Request #2

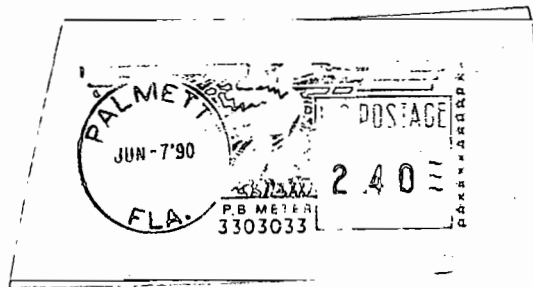
Do you expect more emissions from the sources in the sulfur system during periods of storage tank loading?

Response #2

Emissions from the storage tank are not expected to increase during periods of storage tank loading. The calculations are already based on typical loading. The only change would be the air flow rate which is dependent on wind direction and velocity.

Request #3

Provide the physical dimensions, the venting configuration, and the emission estimates for the sulfur pit.



Fold at line over top of envelope to the right
of the return address

CERTIFIED

P 168 562 793

MAIL

Royster PHOSPHATES, INC.

P.O. BOX 1329
PALMETTO, FL 34220-1329

Royster

U.S. HWY. 41 NORTH OF PALMETTO

TO:

Mr. C. H. Fancy, Chief
Bureau of Air Regulation
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

C. H. Fancy, Chief
-page two-

Response #3

The physical dimensions of the sulfur pit are as follows:

17' 4" North - South
16' 0" East - West
6'10" Deep

There are two vents in the sulfur pit. Both vents are 6" schedule 40 pipe. One vent is located on the north side and the other is on the south side of the sulfur pit. See attachments one and two.

Emission estimates for the sulfur pit are 0.14 tons/yr. See attachment three.

Request #4

Please estimate the emissions expected from the sulfur delivery vehicles while they are at the Royster facility.

Response #4

There are no expected emissions from the sulfur delivery vehicles while they are at the Royster facility. These vehicles are unloaded by gravity and as they empty air is drawn into them.

Request #5

Submit air emission estimates for any other source/equipment/process within or associated with the sulfur system which has not yet been permitted by DER.

Response #5

The sulfur system contains no other sources/equipment/process associated with the system that have air emissions. All other non-permitted sources are either equipped with air entrainment systems or are covered as to allow no emissions.

Request #6

Submit air emission estimates for all the air pollutants emitted by the sources in the sulfur system. Please list them for short term (lb/hr) and long term (tons/hr) for each source separately.

Response #6

Air estimates are as follows:

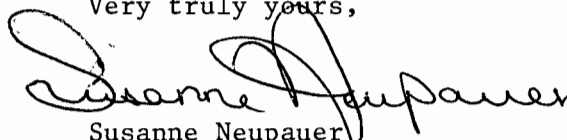
	<u>Short Term</u>	<u>Long Term</u>
Sulfur storage tank	0.14 lb/hr	0.61 ton/yr
Sulfur pit	0.03 lb/hr	0.14 ton/yr

See attachment three.

C. H. Fancy, Chief
-page three-

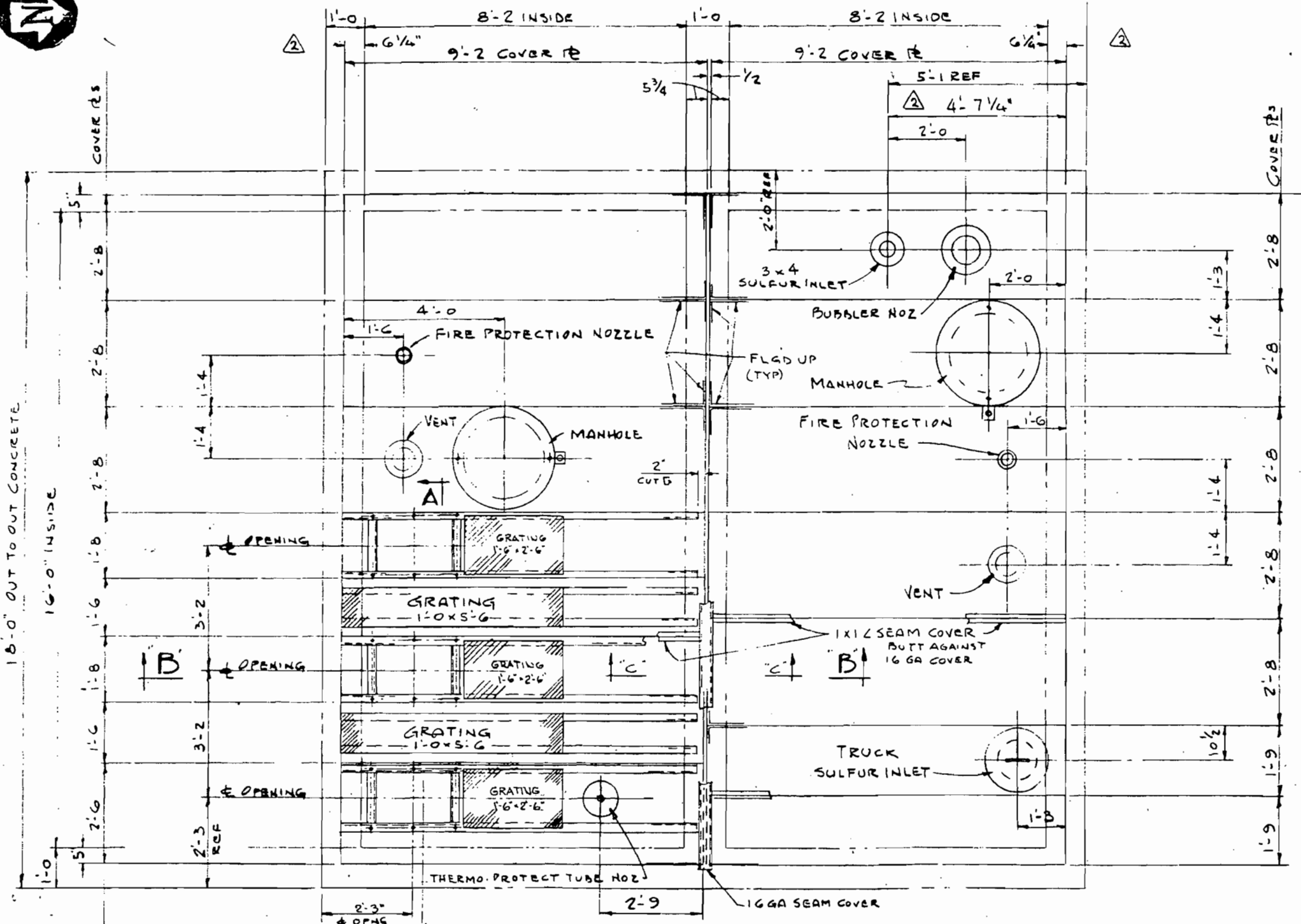
Should any further information be required, please contact this office.

Very truly yours,


Susanne Neupauer
Environmental Engineer

SN:dam
Attachments

cc: M. Bailey
B. Thomas, SW Dist
J. Bruens, Manatee Co.
CHF/BT



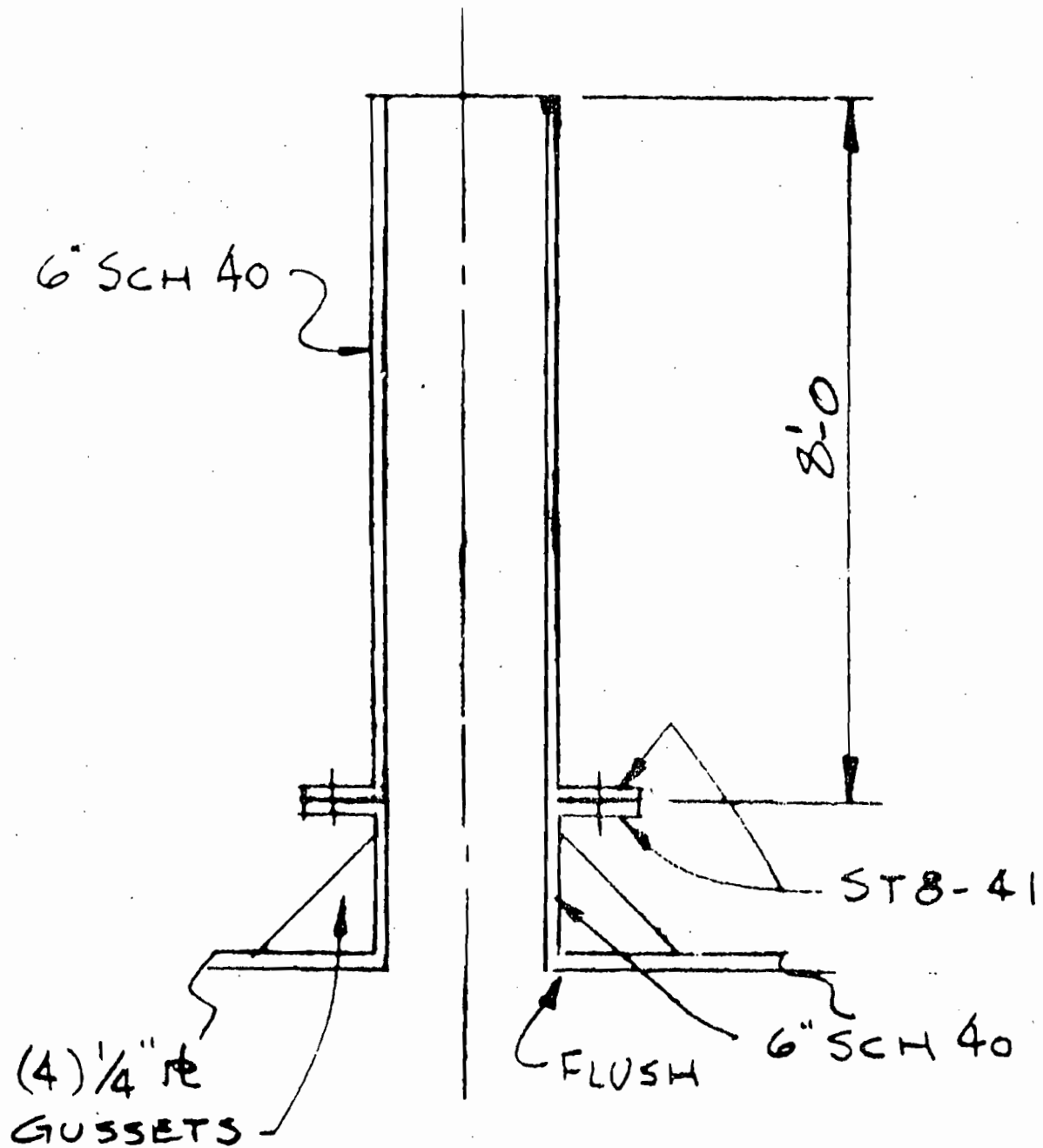
Contract No.
633

Sheet No.
5-145

TRUE ORIENTATION

SULFUR PIT

attachment 1



VENT

SULFUR PIT

ATTACHMENT THREE

SULFUR PIT EMISSIONS ESTIMATES

2 vents * 0.1 gr/ft³ * 18 ft³/min * 60 min/hr * 1 lb/7,000g = 0.03 lb/hr

2 vents * 0.1 gr/ft³ * 18 ft³/min * 60 min/hr * 24 hr/day * 365 days/yr
* 1 lb/7,000g * 1 ton/2,000 lb = 0.14 ton/yr

SULFUR STORAGE TANK EMISSIONS ESTIMATES

3 vents * 0.3 gr/ft³ * 18 ft³/min * 60 min/hr * 1 lb/7,000g = 0.14 lb/hr

3 vents * 0.3 gr/ft³ * 18 ft³/min * 60 min/hr * 24 hr/day * 365 days/yr
* 1 lb/7,000g * 1 ton/2,000 lb = 0.61 tons/yr

PM
4-6-90
Bradenton, FL

File copy



STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

April 5, 1990

RECEIVED

APR 09 1990

DER-BA

Mr. Pradeep Ravel
Florida Department of Environmental Regulation
Twin Tower Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Permit #AC41-176524
Rogster Phosphates, Inc.

Dear Mr. Ravel:

Our permit review has indicated that more information is needed on the rational for assumption that .3gr/ft.3 of sulfur particulate, and 18 ft./min. Flow escaping from each of the (3) three vents. How was this figure obtained.

Also, I like to know how the annual compliance test is to be conducted and what it consist of on the vents?

Should further information be required, please contact our office.

Sincerely,

John A. Bruens
Engineer

4-11-90

CHF
JP
BT

FVI. Please initial
and return to Patty for
filing.

cc:
BAR Engineer?
B. Thomas, SW District } 4-11-90 RBW
File
CHF/JP/BT

DISTRICT SIX

MANATEE COUNTY PUBLIC HEALTH UNIT
410 SIXTH AVENUE EAST, BRADENTON, FLORIDA 34208-1986
(813) 748-0666

● **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. Gary L. Dahms Royster Phosphates, Inc. P. O. Box 1329 Palmetto, Florida 34220	4. Article Number P 938 762 850 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature - Address X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>SBurnell</i>	
7. Date of Delivery <i>3-23-90</i>	

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

P 938 762 850

RECEIPT FOR CERTIFIED MAIL

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

Sent to Mr. Gary L. Dahms, Royster	
Street and No. Phosphates	
P. O. Box 1329	
P.O., State and ZIP Code Palmetto, Florida 34220	
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: 3-21-90 Permit: AC 41-176524	

PS Form 3800, June 1985



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

March 19, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gary L. Dahms
Royster Phosphates, Inc.
P. O. Box 1329
Palmetto, Florida 34220

Dear Mr. Dahms:

Re: Sulfur Storage and Handling System Permitting
AC 41-176524

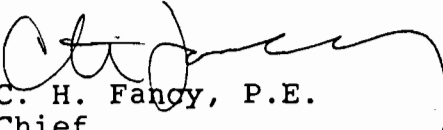
The Department has received your application package dated February 16, 1990, and deemed it incomplete. Please submit the following information including all assumptions, calculations and reference material:

1. Please explain the basis (reference the source) for calculating the sulfur particulate emissions from the storage tank.
2. Do you expect more emissions from the sources in the sulfur system during periods of storage tank loading? If so, please quantify.
3. Provide the physical dimensions, the venting configuration, and the emission estimates for the sulfur pit.
4. Please estimate the emissions expected, if any, from the sulfur delivery vehicle(s) while it is at the Royster facility.
5. Submit air emission estimates for any other source/equipment/process within or associated with the sulfur system which has not yet been permitted by DER.
6. Submit air emission estimates for all the air pollutants emitted by the sources in the sulfur system. Please list them for short term (lb/hr) and long term (tons per year) for each source separately.

Mr. Gary L. Dahms
Page 2
March 19, 1990

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.
Chief
Bureau of Air Regulation

CHF/plm

c: B. Thomas, SW District
Pollution Control Dept., Manatee County
R. Mayko, P.E.

Royster Phosphates, Inc.

CERTIFIED MAIL #P 168 562 814
2/16/90

RECEIVED

P. O. Box 1329
Palmetto, Florida 34220
(813) 722-4555

FEB 20 1990

DER-BAQM

February 16, 1990

Mr. Pradeep Raval
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Molten Sulfur Storage Tank Permit
Application

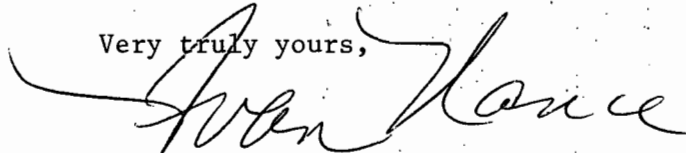
RECEIVED
DER-MAIL ROOM
1990 FEB 20 PM 12:40

Dear Mr. Raval:

Find enclosed an application and check submitted as
required by F.A.C. 17-2 for the above referenced tank.

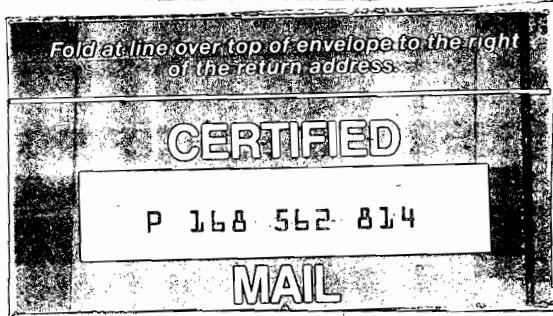
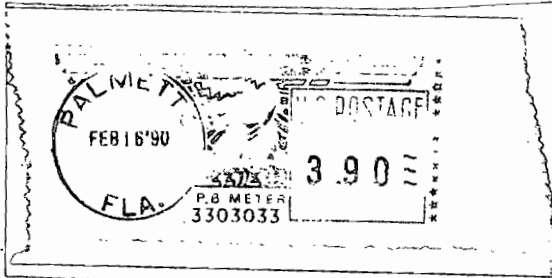
Should further information be required, contact our
office.

Very truly yours,



F. Ivan Nance
Environmental/Technical
Manager

FIN/dam
Enclosures



Royster PHOSPHATES, INC.
P.O. BOX 1329
PALMETTO, FL 34220-1329

Royster

U.S. HWY. 41 NORTH OF PALMETTO

TO:

Mr. Pradeip Raval
Fl Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Royster

ACCOUNTS PAYABLE CHECK

ROYSTER PHOSPHATES, INC.
P.O. BOX 1329 • PALMETTO, FL 34220

DATE 01/29/90

62-22/311

CHECK NUMBER 0009368

PAY EXACTLY TWO HUNDRED AND NO/100

No 82009368

CoreStates Bank
of Delaware N.A.

AMOUNT \$200.00

Pay
to the
order of

FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
2600 BLAIR STONE ROAD
TALLAHASSEE FL 323992400

D. J. D. S.
AUTHORIZED SIGNATURE



RECEIVED
FEB 20 1990
DER - BAQIM

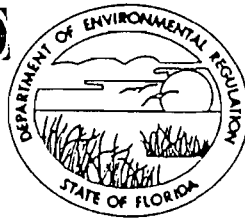
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

\$200pd.
2-20-90
Recpt. #151104

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2100

RECEIVED

FEB 20 1990



AC41-176524

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

DER-BAQM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: SULFUR STORAGE TANK [] New¹ [X] Existing

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

COMPANY NAME: Royster Phosphates, Inc. COUNTY: Manatee

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) Tank Vents

SOURCE LOCATION: Street U S Highway 41 North 10 Mi. N. of Palmetto, City Palmetto, Fl

UTM: East _____ North _____

Latitude 27° 37' 58" N Longitude 82° 32' 8" W

APPLICANT NAME AND TITLE: Gary L. Dahms, Vice President and General Manager

APPLICANT ADDRESS: P.O. Box 1329, Palmetto, Fl 34220

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Royster Phosphates, Inc.

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

*Attach letter of authorization

Signed: Gary L. Dahms

Gary L. Dahms, Vice President & General Manager
Name and Title (Please Type)

Date: 2/16/90 Telephone No. 813 722-4555

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

¹ 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 Robert E. Mayko

Robert E. Mayko
Name (Please Type)

Royster Phosphates, Inc.
Company Name (Please Type)

P.O. Box 1329 Palmetto, Fl 34221
Mailing Address (Please Type)

Florida Registration No. 25518 Date: 2/16/90 Telephone No. (813) 722-4555

SECTION II: GENERAL PROJECT INFORMATION

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

SEE ATTACHMENT ONE.

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

Start of Construction N/A 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.)

N/A

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

A041-121085 Operation of a sulfuric acid plant expires 7/15/91.

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) N/A

1. Is this source in a non-attainment area for a particular pollutant? _____

a. If yes, has "offset" been applied? _____

b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

c. If yes, list non-attainment pollutants. _____

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

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

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

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

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? NO _____

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
SULFUR			55,500	

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

1. Total Process Input Rate (lbs/hr): 55,500 lb/hr Sulfur

2. Product Weight (lbs/hr): 166,667 lb/hr Sulfuric Acid

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

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Sulfur Particulate		0.61				0.61	

¹See Section V, Item 2.

²Reference 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)

³Calculated from operating rate and applicable standard.

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

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

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

E. Fuels N/A

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

*Units: Natural Gas--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. N/A

Annual Average _____ Maximum _____

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

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

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

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (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) ³	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)]
See calculation sheet (Attachment Two).
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. See calculation sheet (Attachment Two).
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
See calculation sheet (Attachment Two).
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.) N/A
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). N/A
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. See Attachment Three
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).
See Attachment Four
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.
See Attachment Five

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

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

Yes No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance 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.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

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

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

- 3.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

- 4.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Costs:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant 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

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

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

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No
- b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
- 2. Surface data obtained from (location) _____
- 3. Upper air (mixing height) data obtained from (location) _____
- 4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

- 1. _____ Modified? If yes, attach description.
- 2. _____ Modified? If yes, attach description.
- 3. _____ Modified? If yes, attach description.
- 4. _____ Modified? If yes, attach description.

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

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
ISP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

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

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

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

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

ATTACHMENT ONE

ROYSTER PHOSPHATES, INC.
MOLTEN SULFUR RECEIVING AND STORAGE AT PINEY POINT
PHOSPHATE PRODUCTS FACILITY

Royster Phosphates, Inc., operates a Phosphate Products Facility located in Manatee County Florida (See Attachments 4 & 5). The "Piney Point" facility is approximately 10 miles north of the city of Palmetto, Florida and is accessed from U S Highway 41 North. This general vicinity is rural/agricultural except for the industrial area, Port of Manatee, located west of Royster's plant.

Production of sulfuric acid, phosphoric acid, and diammonium phosphate (DAP) is accomplished at the Piney Point facility. Elemental sulfur, phosphate rock, and anhydrous ammonia are the required raw materials for the manufacturing process. Diammonium phosphate is the primary product exported from the facility on a routine basis.

Molten sulfur is burned in a contact sulfuric acid plant with a permitted capacity of 2,000 tons per day 100% basis sulfuric acid. Operation of this plant is scheduled 24 hours per day, 7 days per week, 52 weeks per year. During 1989 176,709 tons of elemental sulfur was received from various sources.

Piney Point receives elemental sulfur in railcar and truck shipments from either the Tampa port area or transcontinental locations. Truck receipts are usually in a molten liquid state that allows for direct unloading into storage via a steam heated "pit." Shipments received via rail usually arrive in a solidified state that requires application of heat. Railcars are heated by steam applied to piping within tank body. When a molten state is achieved the railcar is pressurized with air forcing the molten sulfur into the pit thence, it is pumped into the storage tank.

The storage tank is 28 feet in diameter with 24 foot sidewalls. There are 3 vents at the top of this tank. One is centrally located the others are 180 degrees apart. The central vent is 48 inch, the two peripheral vents are 24 inch diameter all are fitted with rain hoods. Steam coils within the storage tank and wall insulation maintain the molten state while in storage.

Placement of materials into the pit and storage tank is a manual operation performed by plant operating personnel. Storage capacity of the tank is 800 tons.

Plant operation at the permitted sulfuric acid production rate of 2,000 tons per day consumes approximately 667 tons of molten sulfur.

This rate of consumption would require the utilization of approximately 30 truckloads or 6.7 railcars of sulfur per day at the permitted rate.

ATTACHMENT TWO

CALCULATIONS

FOR III, A. AND \bar{V} 1. PROCESS RATE

$$\frac{2000 \text{ ton H}_2\text{SO}_4}{\text{day}} \times \frac{.33 \text{ ton Sulfur}}{\text{ton H}_2\text{SO}_4} \times \frac{2000 \text{ lb}}{1 \text{ ton}} = \frac{1,320,000 \text{ lb}}{\text{day}}$$

FOR III, C. AND \bar{V} 2. EMISSION ESTIMATE

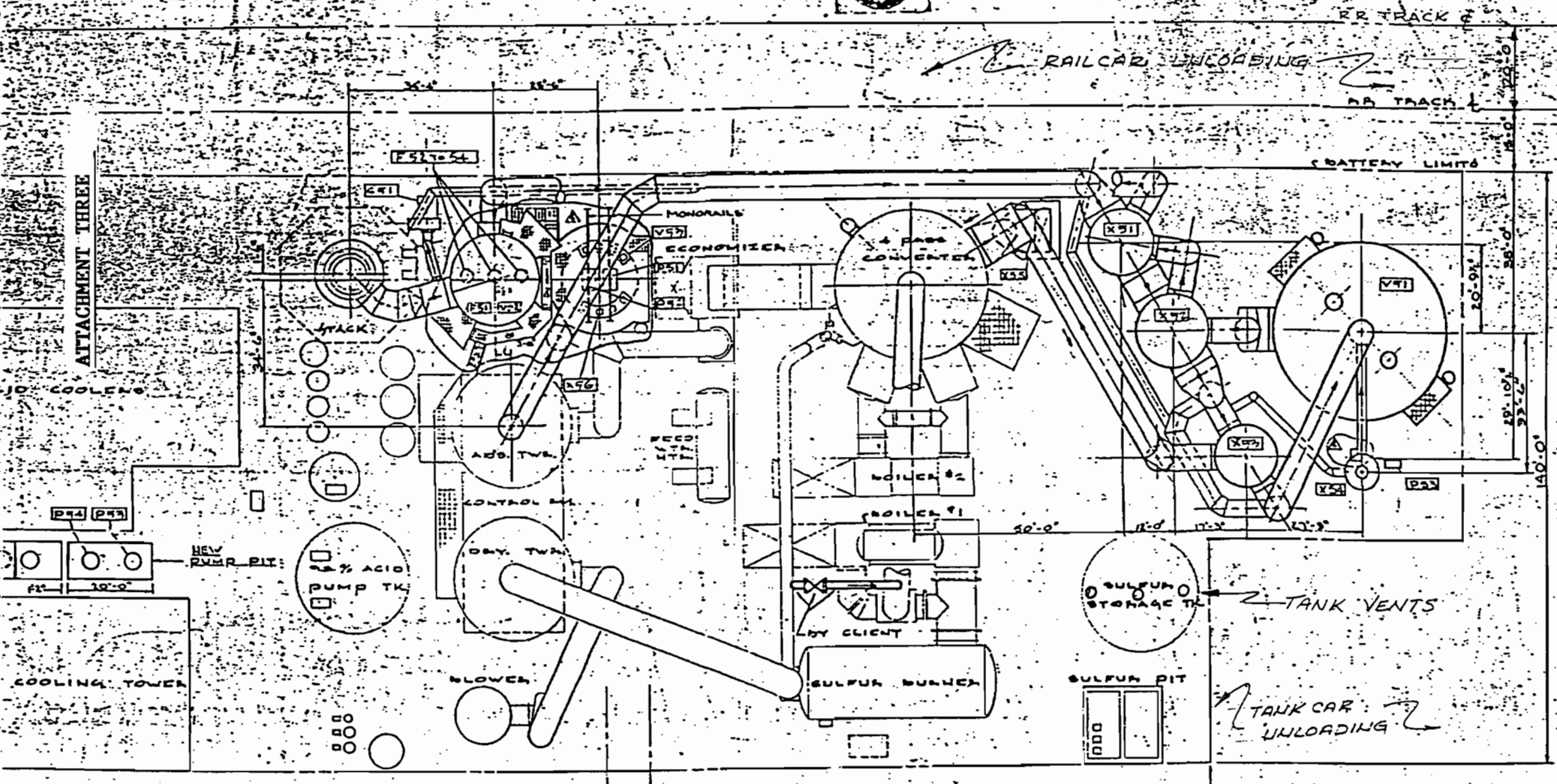
Assume: $0.3\text{gr}/\text{FT}^3$ Sulfur Particulate

$111\#/ \text{FT}^3$ Sulfur Density @ 270° F

$18 \text{ FT}^3/\text{Min}$ Flow from each vent

$$3 \text{ VENTS} \times \frac{0.3\text{gr}}{\text{FT}^3} \times \frac{18 \text{ FT}^3}{\text{Min}} \times \frac{60 \text{ min}}{\text{Hr}} \times \frac{24\text{hr}}{\text{Day}} \times \frac{365 \text{ day}}{\text{Yr}}$$

$$\frac{1\#}{7000\text{gr}} \times \frac{1 \text{ ton}}{2000\#} = \frac{0.61 \text{ Ton}}{\text{Yr}}$$



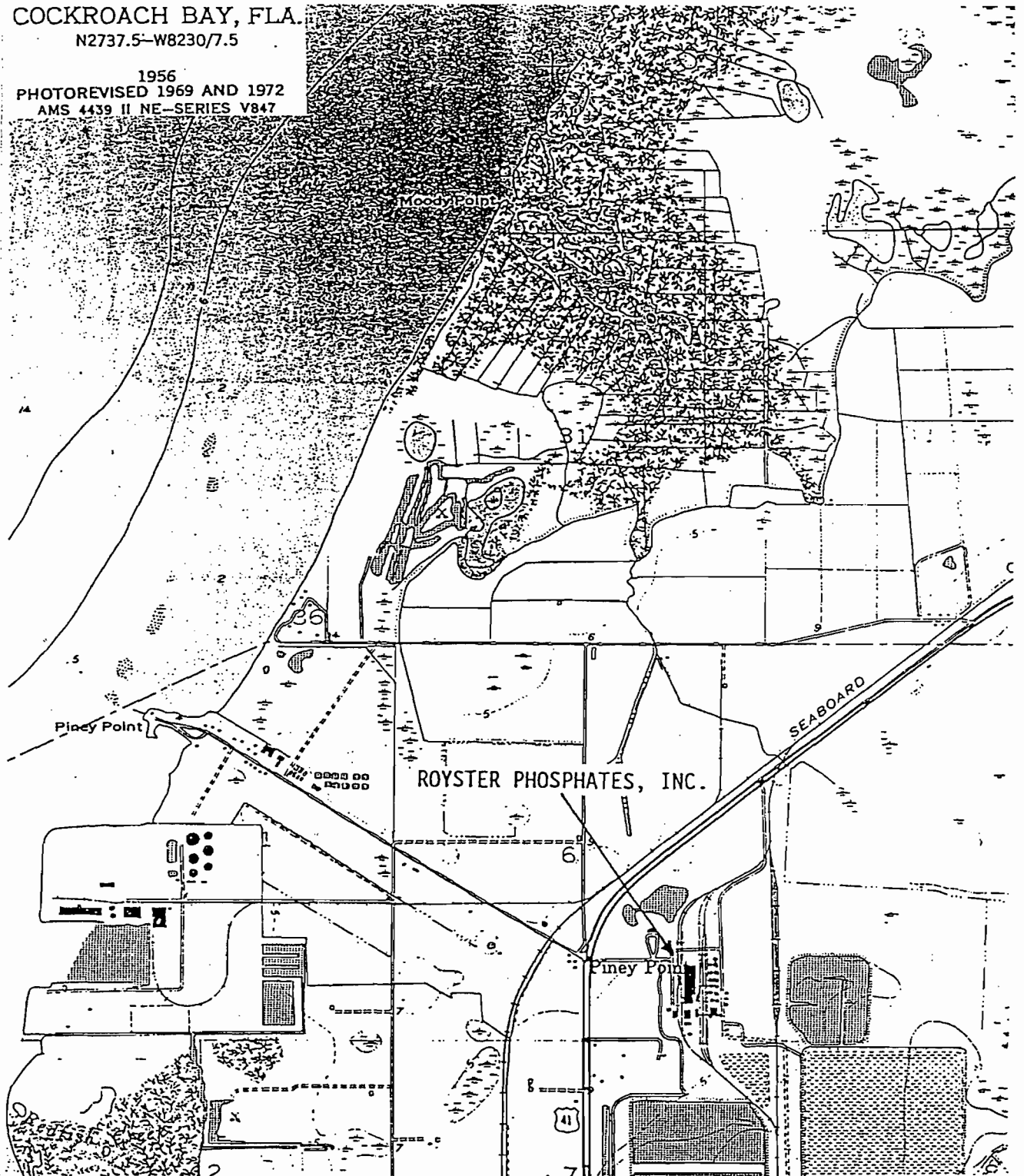
Royster Phosphates, Inc.

P. O. Box 1329
Palmetto, Florida 34220
(813) 722-4555

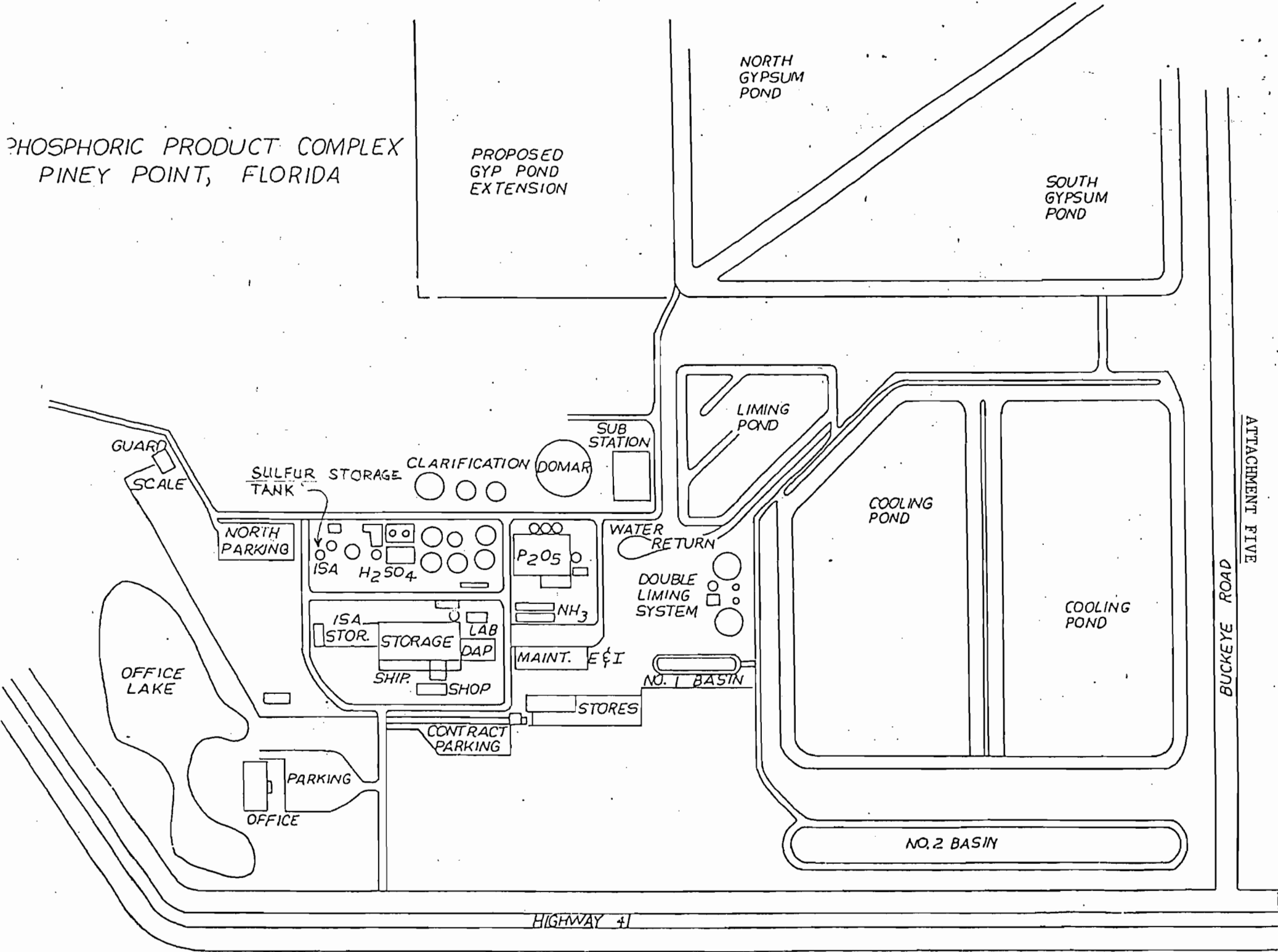
COCKROACH BAY, FLA.

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1956
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AMS 4439 II NE-SERIES V847



PHOSPHORIC PRODUCT COMPLEX
PINEY POINT, FLORIDA



ATTACHMENT FIVE

BUCKEYE ROAD

HIGHWAY 41