

Final Determination

AMAX Phosphate, Inc.
Hillsborough County, Florida

Construction Permit
Application Number AC 29-52245

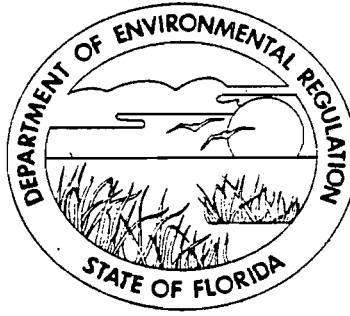
Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting
April 28, 1982

AMAX Phosphate, Inc.

AMAX Phosphate, Inc.'s construction permit application of its 7500 CFM bag collector at their existing plant in Plant City, Florida has been reviewed by the Bureau of Air Quality Management. Public Notice of the Department's Intent to Issue was published in the Tampa Tribune on March 25, 1982. Copies of the preliminary determination were available for public inspection at the Southwest District Office, and the Bureau of Air Quality Management.

There were no letters of response as a result of the public notice period.

The final action of the Department will be to issue the permit as noticed in the public review process.



STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION

CONSTRUCTION
PERMIT

NO. AC 29-52245
AMAX PHOSPHATE, INC.
7500 CFM BAGCOLLECTOR
HILLSBOROUGH COUNTY

DATE OF ISSUANCE

May 3, 1982

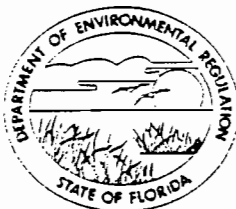
Victoria J. ...

DATE OF EXPIRATION

JANUARY 30, 1983

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

APPLICANT: AMAX Phosphate, Inc.
P. O. Box 790
Plant City, FL 33566

PERMIT/CERTIFICATION
NO. AC 29-52245

COUNTY: Hillsborough

PROJECT:
7500 CFM
Dry dust Collector

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

For the construction of a 7500 CFM dry dust collector (baghouse) at AMAX Phosphate, Inc. located at Coronet Road in Plant City, Florida. The UTM coordinates are 393.8 Km East and 3096.3 Km North respectively.

Construction shall be in accordance with the attached permit application and plans, documents, and drawings except as otherwise noted on page 3 - "Specific Conditions".

Attachment:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16)

PERMIT NO.: AC 29-52245
APPLICANT: AMAX Phosphate, Inc.

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 Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court 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 indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.
3. 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 non-compliance, 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.
4. As provided in subsection 403.087(6), 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.
5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.
6. 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 Section 403.111, F.S.
7. In the case of an operation permit, 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.
8. 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 therefore 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, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.
9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.
10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.
11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.
12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.
13. This permit also constitutes:
 - Determination of Best Available Control Technology (BACT)
 - Determination of Prevention of Significant Deterioration (PSD)
 - Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: AC 29-52245
APPLICANT: AMAX Phosphate, Inc.

SPECIFIC CONDITIONS:

1. Construction should reasonably conform to the plans submitted in the application.
2. The unit shall be allowed to operate continuously (8736 hours per year).
3. Before this construction permit expires, the unit will be tested for visible emission. Visible emissions as described in Chapter 17-2.700, DER method 9, shall not exceed 5% opacity during any 6 minutes period.

The Department will be notified 30 days in advance of the compliance test. The test will be conducted at 90 to 100% capacity.

4. Reasonable precautions to prevent fugitive particulate emissions during construction such as coating or spraying roads and construction sites used by contractors will be taken by the applicant.
5. The applicant shall report any delays in construction and completion of this unit to the Department's Southwest District Office.
6. The applicant will demonstrate compliance with the conditions of the construction permit, and submit a complete application for an operating permit to the Department's Southwest District Office prior to 90 days of the expiration date of the construction permit. The applicant may continue to operate in compliance with all terms of the construction permit until its expiration date or issuance of an operating permit.
7. Upon obtaining an operating permit, the applicant will be required to submit periodic test reports on the actual operation and emissions of the facility.
8. This permit replaces part of operating permit NO AO 29-6318. The applicant shall return this operating permit to the Southwest District office within three (3) months of start-up of the new unit.
9. The source shall comply with the provisions and requirements of the attached general conditions.

PERMIT NO.: AC 29-52245
APPLICANT: AMAX Phosphate, Inc.

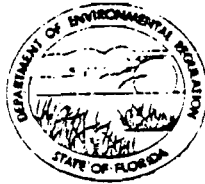
Expiration Date: January 30, 1983

Issued this 3 day of May, 1982

 Pages Attached.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION


Signature



FEB 4 1982

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES

SOUTHWEST DISTRICT
TAMPA

SOURCE TYPE: Point Source (Air Pollution) [] New¹ [x] Existing¹

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

COMPANY NAME: AMAX Phosphate, Inc. COUNTY: Hillsborough

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

SOURCE LOCATION: Street Coronet Road (7500 CFM Baghouse) City Plant City

UTM: East 17-393.8 North 3096.3

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: J. J. Lewis, Plant Manager

APPLICANT ADDRESS: P. O. Box 790, Plant City, FL 33566

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of AMAX Phosphate, Inc.

I certify that the statements made in this application for a Modification (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: J. J. Lewis
J. J. Lewis, Plant Manager

Name and Title (Please Type)
Date: 2/4/82 Telephone No. (813) 752-1161

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 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: David L. Nederveld
David L. Nederveld

(Affix Seal)

Name (Please Type)
Case Engineering, Inc.

Company Name (Please Type)

P. O. Box 6039, Lakeland, FL

Mailing Address (Please Type)

Florida Registration No. 16820 Date: _____ Telephone No. (813) 644-7580

¹See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.
Project consists of the installation of a 7,500 CFM (Air Flow Capacity) pulsaire
dry dust collector (baghouse) with a cloth area of 1070 ft² (or more), and the
necessary pickup points and duct work to capture fugitive particulate. The air
to cloth ratio of dust collector will be approximately 7 CFM/1 ft² of cloth.
- B. Schedule of project covered in this application (Construction Permit Application Only)
Start of Construction February, 1982 Completion of Construction July, 1982
- 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.)
Dust Collector and Ductwork: \$82,000
Total Cost including Engineering & Labor: \$276,000
- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.
The present feed preparation dust control units are being operated under the
collective FDER Permit No. A029-6318 which was issued on May 9, 1979 and expires
May 5, 1983.
- E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes No
- F. Normal equipment operating time: hrs/day 20*; days/wk 7*; wks/yr 52*; if power plant, hrs/yr N/A; if seasonal, describe: *Operating time may vary due to production problems and market demand.
- G. If this is a new source or major modification, answer the following questions. (Yes or No)
- | | |
|---|------------|
| 1. Is this source in a non-attainment area for a particular pollutant? | <u>No</u> |
| a. If yes, has "offset" been applied? | <u>N/A</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied? | <u>N/A</u> |
| c. If yes, list non-attainment pollutants.
<u>N/A</u> | |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. | <u>No</u> |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u> |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? | <u>No</u> |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? | <u>No</u> |
- Attach all supportive information related to any answer of "Yes". Attach any justification 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		
Phosphate Rock	Particulate	100%	97,200	See Attachment D
Phosphate Rock	Fluoride	3.5%	97,200	See Attachment D
Phosphoric Acid	Fluoride	1.0%	27,700	
Caustic Soda	N/A	N/A	21,200	

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

- Total Process Input Rate (lbs/hr): 147,000
- Product Weight (lbs/hr): 120,000

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission ¹		Allowed Emission ² Rate per Ch. 17-2, F.A.C.	Allowable ³ Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	1.30	4.6	Ch. 17-2.05 (2)	34.42	370	1,296	Attach. D
Fluoride			Covered by FDER Permit	No. AO 29-6315			
Sulfur Dioxide			Covered by FDER Permit	No. AO 29-6315			

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles ⁵ Size Collected (in microns)	Basis for Efficiency (Sec. V, It ⁵)
Seneca Model 100 - ZMY - 10 Dry, Dust Collector (or Equivalent)	Particulate	99.65% @ 7 gr/SCF	1.3 - ≥ 13.7 μ	Manufacturers Guarantee

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 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)

⁵If Applicable

E. Fuels *All emissions vented through scrubber covered in FDER Permit No. A0 29-6315.

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	38.5 MMCF	40.8 MMCF	42 MMBTU/Hr.
*#5 Fuel Oil	6.37 BBL	6.94 BBL	42 MMBTU/Hr.

*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: 2.08% Percent Ash: N/A
 Density: 7.563 lbs/gal Typical Percent Nitrogen: N/A
 Heat Capacity: 19,040 BTU/lb 144,000 BTU/gal
 Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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: 107 ft. Stack Diameter: 17 1/8" X 17 1/8" (2.04 Ft.²) ft.
 Gas Flow Rate: 7,500 ACFM Gas Exit Temperature: 110 °F.
 Water Vapor Content: N/A % Velocity: 61.4 FPS

*Note: Fuel oil is used only during periods of natural gas curtailment.

SECTION IV: INCINERATOR INFORMATION
 Not Applicable

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

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ days/week _____
 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: _____

Not Applicable

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

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. See Attachment A
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 Attachment B
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). See Attachment B
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, etc.). See Attachment C-1
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). See Attachment C-2
6. An 8½" 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 D
7. An 8½" 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 E
8. An 8½" 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 E

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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
Phosphate Rock Dust	.02 Grains/SCF

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

- 1. Control Device/System: Cloth Filter (Baghouse), 2,000 CFM
- 2. Operating Principles: Filtration
- 3. Efficiency: * 99 + %
- 4. Capital Costs: Not Available
- 5. Useful Life: 20 Years
- 6. Operating Costs: \$5,400 Per Annum (Fan)
- 7. Energy: Not Available
- 8. Maintenance Cost: \$905 Per Annum (Bag Replacement & Other)
- 9. Emissions: .02 Grains/SCF

Contaminant	Rate or Concentration
Phosphate Rock Dust	.02 Grains/SCF

*Explain method of determining D 3 above.

Engineering Determination

10. Stack Parameters

- a. Height: 203 ft.
- b. Diameter: 8 3/8" X 10 1/8" (0.59 ft²) ft.
- c. Flow Rate: 2,050 ACFM
- d. Temperature: 110°F
- e. Velocity: 57.9 FPS

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

1.

- a. Control Device: Dust Collector (Baghouse)
- b. Operating Principles: Filtration, Dry Cloth
- c. Efficiency*: 99.65%
- d. Capital Cost: \$82,000
- e. Useful Life: 20 Years
- f. Operating Cost: \$12,000 Per Annum (Fans & Preheater)
- g. Energy*: Not Available
- h. Maintenance Cost: \$2,000 Per Annum (Bag Replacement & Other)
- 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*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy**:
- h. Maintenance Costs:
- 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:

*Explain method of determining efficiency.

**Energy to be reported in units of electrical power — KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

*Explain method of determining efficiency above. Engineering Determination

- 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*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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: Dust Collector (Baghouse)
- 2. Efficiency*: 99.65%
- 3. Capital Cost: \$82,000
- 4. Life: 20 Years
- 5. Operating Cost: \$12,000 Per Annum (Fans & Preheater)
- 6. Energy: Not Available
- 7. Maintenance Cost: \$2,000 Per Annum (Bag Replacement & Other)
- 8. Manufacturer: Seneca Environment Products, Inc.
- 9. Other locations where employed on similar processes:

a.

- (1) Company: International Minerals & Chemical Corp.
- (2) Mailing Address: P. O. Box 1035
- (3) City: Mulberry (4) State: Florida
- (5) Environmental Manager: Gerry Geradin
- (6) Telephone No.: (813) 428-2531

*Explain method of determining efficiency above. Engineering Determination

- (7) Emissions*: .02 Grains/SCF

Contaminant	Rate or Concentration
Phosphate Rock Dust	.02 Grains/SCF

- (8) Process Rate*: 97,200 Lbs./Hour

b.

- (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:

*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions*:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate*:

10. Reason for selection and description of systems:

*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 Not Applicable

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.

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
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

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 A

TOTAL PROCESS INPUT RATE

97,200 lb/hr Phosphate Rock Total Process Input Rate.

PRODUCT WEIGHT

97,200 lb/hr Total Process Input Rate

2.25 lbs/hr Particulate Loss to Atmosphere.

97,198 lbs/hr Product Weight.

ATTACHMENT B

EMMISSIONS ESTIMATE

Estimated baghouse loading: 5.76 grains/ft³
100% - 99.65% (baghouse efficiency) = 0.35% discharge
5.76 grains/ft³ x 7,500 SCFM airflow through the baghouse
= 43,200 grains/min. X 60 min./hour =
2,592,000 grains/hour ÷ 7,000 grains/lb =
370 lbs/hour actual loading to the baghouse
370 lbs/hour loading X 0.35% discharge =
1.30 lbs/hour emissions
1.30 lbs/hour emissions X 7,008 hours annual operating time
= 9,110 lbs/year emissions ÷ 2,000 lbs/ton =
4.6 tons/year emissions

POTENTIAL EMISSIONS

370 lbs/hour baghouse loading
370 lbs/hour X 7,008 hours annual operating time
= 2,593,000 lbs/year ÷ 2,000 lbs/ton =
1,296 tons/year potential emissions

ATTACHMENT C-1

The Baghouse to be installed is a reverse pulse jet bag collector with a cloth area of 1070 ft² (or more) and an air flow of 7500 CFM. The resulting air to cloth ratio is 7.0 CFM/ft² cloth (or less). The material collected by this baghouse will be returned to the process.

Baghouses are considered to be the best available control technology by the U.S. Environmental Protection Agency when used to control nuisance particulate. Baghouses are considered to be 99%+ efficient, and this installation will meet or exceed this level.

SENECA environmental products, inc.

82 NORTH WASHINGTON STREET • TIFFIN, OHIO 44883 • (419) 447-1282

DECEMBER 4, 1981

AMAX PHOSPHATE, INC.
POST OFFICE BOX 790
PLANT CITY, FLORIDA 33566

ATTN: JAMES WHITTUM

REFERENCE:

400-T-10 DUST COLLECTOR
100-IMT-10 DUST COLLECTOR

AS PER OUR DISCUSSIONS, PLEASE BE ADVISED THAT EQUIPMENT EFFICIENCY OF THE EQUIPMENT WILL APPROACH 99.99% BASED ON THE ANTICIPATED PARTICULATE SIZE AND DISTRIBUTION OF YOUR PHOSPHATE DUST.

YOURS TRULY,

SENECA ENVIRONMENTAL PRODUCTS, INC.



TERRENCE E. DORNAN
VICE PRESIDENT-ENGINEERING

TED:AMC
CC:FILE
JOE FLOYD

ATTACHMENT D

PHOS ROCK
NaOH
PHOS ACID

FEED PREP

BULK STORAGE &
RAIL CAR LOADING

CORONET ROAD

FEED MILL
BAGHOUSE
POINT SOURCE

KILN

CDP

KILN

PHOS ROCK
NaOH
PHOS ACID

PHOS ROCK
NaOH
PHOS ACID

ATTACHMENT B