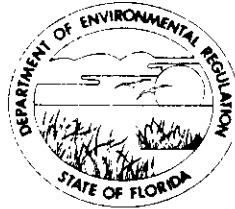


STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

October 11, 1983

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. S. R. Sandrik, Plant Manager
AMAX Phosphate, Inc.
Post Office Box 508
Bradley, Florida 33835

RE: Final Determination - AMAX Phosphate, Inc.
Application for State and Federal PSD Permits
(AC 29-65834, PSD-FL-094)

Dear Mr. Sandrik:

Enclosed please find one copy of the referenced Final Determination. State Permit Number AC 29-65834, hereby issued as of October 7, 1983, pursuant to Section 403, Florida Statutes. Final approval of the Federal PSD permit, which is incorporated with the state permit, is contingent upon review and acceptance of the permit condition by the Environmental Protection Agency Region IV office in Atlanta. Questions concerning final issuance of the Federal permit should be directed to Mr. James T. Wilburn of the EPA office.

Acceptance of this permit constitutes notice and agreement that the department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement actions for violation of the conditions and requirements thereof.

Sincerely,

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

CHF/bjm

Enclosure

cc: James T. Wilburn, EPA Region IV
Iwan Choronenko, Hillsborough County Environmental
Protection Commission
Dan Williams, DER Southwest District
John B. Koogler, Sholtes & Koogler Environmental Consultants

P 408 530 350

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Mr. S. R. Sandrik	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	c
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	
10/12/83	

PS Form 3800, Feb 1982

PS Form 3811, Jan 1979

① SENDER: Complete Items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)

Show to whom and date delivered.....

Show to whom, date and address of delivery.....

RESTRICTED DELIVERY

 Show to whom and date delivered.....

RESTRICTED DELIVERY.

 Show to whom, date, and address of delivery \$

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:

Mr. S. R. Sandrik
P. O. Box 508
Bradley, FL 33835

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	P408530350	

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE Addressee Authorized agent

DATE OF DELIVERY 10-17-83

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:

CLERK'S INITIALS

BRADLEY, FL POSTMARK OCT 17 1983

☆GPO : 1979-300-469

FINAL DETERMINATION

AMAX Phosphate, Inc.
Hillsborough County, Florida

Permit Number
AC 29-65834
PSD-FL-094

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

October 5, 1983

FINAL DETERMINATION

AMAX Phosphate, Inc.'s application for permit to burn an alternate fuel in their existing phosphate rock dryer located near Fort Lonesome, Hillsborough County, Florida has been reviewed by the Bureau of Air Quality Management. Public Notice of the department's intent to issue the permit was published in The Tampa Tribune on September 3, 1983. Hillsborough County Environmental Protection Commission and the U.S. Environmental Protection Agency commented on the department's proposed action.

Hillsborough County Environmental Protection Commission requested the department require AMAX Phosphate, Inc. to continue to operate three Company owned ambient air monitoring systems as a specific condition to the construction permit. The department encourages AMAX to furnish the ambient air quality data collected by the Company's monitors. All data meeting the quality assurance requirements will be added to the department's ambient air quality data bank. The department's policy is to require post-construction monitoring only when a project threatens an ambient air quality standard. Since this is clearly not the case for this project and the agreement to furnish the data is between the county and AMAX, the department feels the elements are not present to incorporate an ambient air monitoring requirement as an enforceable permit condition. For these reasons, we have not added a specific condition requiring post-construction monitoring to the construction permit.

The review engineer for EPA expressed doubt about AMAX being able to meet the proposed particulate matter and sulfur dioxide emission standards while burning the alternate fuel. He reached this position by reevaluating the test data submitted in the application. The Bureau of Air Quality Management believes the permitted emission standards can be met although the Company may have to burn a higher quality of fuel than they proposed in the application to meet them. The draft permit placed limits on the allowable emissions of criteria pollutants and specified the Company must use whatever quality of fuel is needed to meet the standards. We believe this is a reasonable, enforceable position and, therefore, no change to the permit is needed for this issue.

The final action of the Bureau of Air Quality Management is to recommend that proposed state permit AC 29-65834 and federal permit PSD-FL-094 be issued as proposed in the Technical Evaluation and Preliminary Determination.

11 Oct
9:24
JWG

AMAX Chemical Corporation

A SUBSIDIARY OF AMAX INC

402 SOUTH KENTUCKY AVENUE • SUITE 600 • LAKELAND, FLORIDA 33801 • (813) 687-2561

September 19, 1983

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

DER

SEP 21 1983

JWG

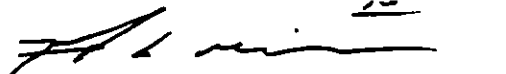
SUBJECT: AMAX BIG-FOUR MINE DRYER PERMIT REVISIONS
AND PSD REVIEW - PUBLIC NOTICE - AC29-65834

Dear Mr. Fancy:

Pursuant to Section 403.815, Florida Statutes, Florida Administrative Code Rule 17-1.62(3), and the request from your Department, AMAX Chemical Corporation has published the required legal notice for the above referenced permit modification. The notice ran one time on September 3, 1983, in the legal ad section of the Tampa Tribune.

In accordance with Rule 17-1.62, you will find attached an affidavit of publication provided by the newspaper as proof the public notice was given.

Sincerely,



Fred G. Mullins
Regulatory Compliance Manager

FGM/ds
Attachment

cc: Dan Williams (Southwest District FDER)
R.F. Crabill
S.R. Sandrik
G.P. Uebelhoer
Rhea Law

THE TAMPA TRIBUNE

Published Daily
Tampa, Hillsborough County, Florida

State of Florida
County of Hillsborough

Before the undersigned authority personally appeared
R. F. Pittman, who on oath says that he is Publisher of The Tampa Tribune, a daily
newspaper published at Tampa in Hillsborough County, Florida; that the attached copy
of advertisement being a

LEGAL NOTICE

in the matter of NOTICE THAT THE DEPARTMENT OF ENVIRONMENTAL
REGULATION GIVES NOTICE OF ITS INTENT TO ISSUE A PERMIT TO
AMAX PHOSPHATE, INC. FOR THE PURPOSE DESCRIBED HEREIN.

was published in said newspaper in the issues of SEPTEMBER 3, 1983

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

A. J. Arriaga

Sworn to and subscribed before me, this 16TH day

of SEPTEMBER A.D. 19 83.

Judith E. Pennington

(SEAL)

Notary Public, State of Florida at Large
My Commission Expires Jan 25 1986

NOTICE OF PROPOSED AGENCY ACTION

The Department of Environmental Regulation gives notice of its intent to issue a permit to AMAX Phosphate, Inc. that will allow the Company to burn alternate fuels in the existing phosphate rock dryer and increase the hours of operation of their Big Four Phosphate Mine that is located near the intersection of State Road 674 and Bethlehem Road in Fort Lanesome, Hillsborough County, Florida. No major physical change in the process or control equipment is required for these modifications. The modifications will increase the emissions of air pollutants from the plants in tons per year, by the following amounts:

Particulate 42.8 Sulfur Dioxide 214.4 Nitrogen Oxides 57.

The proposed modification has been reviewed by the Florida Department of Environmental Regulation under Chapter 403, Florida Statutes, and federal regulation 40 CFR 52.21, Prevention of Significant Deterioration. A Best Available Control Technology determination was required for these modifications.

Emissions from the rock feed facility will remain within Hillsborough County. Particulate emissions will not exceed the allowable increment contribution or cause an ambient air quality violation in other areas. The maximum percentage of allowable PSD increments consumed will be as follows: SO2-Three Year 34%, SO2-24 Hour 70%, SO2-Annual 95%, Particulate Matter-24 Hour 46%, and Particulate Matter-Annual 16%.

A person who is substantially affected by the department's proposed permitting decision may request a hearing in accordance with Section 218.05, Florida Statutes, and Chapter 771 and 772, Florida Administrative Code. The request for hearing must be filed in writing with the Office of General Counsel of the department at 2400 Bay Shore Road, Twin Towers Office Building, Tallahassee, Florida 32304, within 30 days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver of any right to such hearing, which may be requested under Section 218.05, Florida Statutes. The Technical Evaluation and Preliminary Permitting Unit for the proposed projects is available for public inspection during normal business hours at the following locations:

Department of Environmental Regulation
BAQIA

2400 Bay Shore Road
Tallahassee, Florida 32304

Department of Environmental Regulation
Southeast District

7601 Highway 301 N
Tampa, Florida 33614

Hillsborough County
Environmental

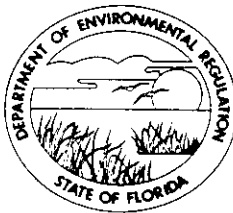
Protection Commission
1900 West

Tampa, Florida 33606
Any person who

has comments on the proposed action to Mr. Carl Flury at the department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the department's final determination.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:

AMAX Phosphate, Inc.
Suite 600
402 S. Kentucky Avenue
Lakeland, Florida 33801

Permit Number: AC 29-65834
Date of Issue:
Expiration Date: March 1, 1984
County: Hillsborough
Latitude/Longitude: 27° 44' 54"/
82° 04' 04"
Project: Big Four Mine Phosphate
Rock Dryer

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

Modification of operations of an existing 300 TPH (wet feed) Heyl Patterson fluid-bed rock dryer equipped with a twin cyclone and a Peabody Engineering Company impingement scrubber, Type M160, Size 88, that discharges 65,000 ACFM through a 5.96 foot diameter stack that is 100 feet high. The modification will allow the use of No. 6 fuel oil and COWM (mixture coal, No. 6 fuel oil and water) with a maximum of 2.5 percent sulfur in the dryer and increase the hours of operation to 8,760 hours per year (full time).

The facility is located near the intersection of State Road 674 and Bethlehem Road, Fort Lonesome, Hillsborough County, Florida. The UTM coordinates of the site are 394.77 E and 3069.62 N.

Modification shall be in accordance with the permit application, documents and drawings, that was signed by Mr. S. R. Sandrik and John B. Koogler on January 28, 1983, May 31, 1983 letter from AMAX Chemical Corporation and the May 27, 1983 letter from Dr. John B. Koogler.

PERMITTEE: AMAX Phosphate, Inc I. D. Number:
Permit Number: AC 29-65834
Date of Issue:
Expiration Date: March 1, 1984

GENERAL CONDITIONS:

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

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

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties 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, unless specifically authorized by an order from the department.

PERMITTEE:

AMAX Phosphate, Inc.

I. D. Number:

Permit Number: AC 29-65834

Date of Issue:

Expiration Date: March 1, 1984

GENERAL CONDITIONS:

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

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

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

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

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

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

PERMITTEE: AMAX Phosphate, Inc. I. D. Number:
Permit Number: AC 29-65834
Date of Issue:
Expiration Date: March 1, 1984

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. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- (X) Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards.

14. 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.

PERMITTEE: AMAX Phosphate, Inc. I. D. Number:
Permit Number: AC 29-65834
Date of Issue:
Expiration Date: March 1, 1984

GENERAL CONDITIONS:

- 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.
- 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.

15. 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. This permit replaces AO 29-22821 as it applies to the phosphate rock dryer.
2. The phosphate rock dryer shall meet all applicable requirements of 40 CFR 60, Subpart NN - Standards of Performance for Phosphate Rock Plants.
3. Phosphate rock feed to the dryer shall not exceed 300 TPH.

PERMITTEE: AMAX Phosphate, Inc.

I. D. Number:

Permit/Number: AC 29-65834

Date of Issue:

Expiration Date: March 1, 1984

SPECIFIC CONDITIONS:

4. Particulate matter emissions from the dryer, as determined by the test methods and procedures described in 40 CFR 60.404, shall not exceed 0.06 lbs/ton feed and 18 lbs/hr, whichever is more restrictive. Visible emissions shall not exceed 10 percent opacity, as determined by reference method 9 described in 40 CFR 60, during any 6 minute period.
5. Sulfur dioxide emissions, as determined by reference method 6 in 40 CFR 60, Appendix A, shall not exceed 1.1 lbs/MMBTU heat input and 138 lbs/hr, whichever is more restrictive.
6. Nitrogen oxides emission, as determined by reference method 7 described in 40 CFR 60, Appendix A, shall not exceed 35.5 lbs/hr.
7. Heat input to the dryer shall not exceed 118 MMBTU/hr.
8. The dryer is allowed to operate continuously, 8760 hours per year.
9. This permit is not valid until EPA issues a permit authorizing the proposed modification. In the event of a difference in any specific or general condition in the state and federal permits, AMAX Phosphate, Inc. must comply with the most restrictive operation or emission limit in either permit.
10. Construction shall reasonably conform to the plans submitted in the application.
11. Sulfur content of the fuel shall not exceed 2.5 percent by weight or the amount necessary to maintain sulfur dioxide emissions below 1.1 lbs/MMBTU heat input. To use fuels with more than 2.5 percent sulfur, AMAX Phosphate, Inc. must obtain the department's approval.
12. Carbon monoxide emissions, as determined by reference method 10, shall not exceed 4.5 lbs/hr or 19.5 TPY. Compliance test is required when requested in writing by the department.
13. Volatile Organic Compound emissions, as determined by method 25, shall not exceed 1.1 lbs/hr or 5.0 TPY. Compliance test is required when requested in writing by the department.

PERMITTEE: AMAX Phosphate, Inc. I. D. Number:
Permit Number: AC 29-65834
Date of Issue:
Expiration Date: March 1, 1984

SPECIFIC CONDITIONS:

14. Stack test facilities on the scrubbers shall meet the minimum specifications in Chapter 17-2.700(4), FAC.
15. The applicant shall maintain a log on the dryer scrubber showing, for each day the dryer operates, the following:
 - a. Pressure drop of the gas in inches of water;
 - b. Flow rate of the scrubber water in GPM
 - c. pH of the scrubber water
 - d. Pressure of the scrubber water.
16. The fuel oil system for the dryer shall not be connected to the fuel oil system for the boiler.
17. Before this construction permit expires, the applicant shall test the emissions from the dryer scrubber while it is operating at 90-100 percent capacity, processing the maximum amount of pebble rock normally contained in the feed, and burning No. 6 fuel oil and COWM with approximately 2.5 percent sulfur for:
 - a. Particulate Matter
 - b. Sulfur Dioxide
 - c. Nitrogen Oxides
 - d. Opacity
18. The applicant will demonstrate compliance with the conditions of this construction permit and submit a complete application for an operating permit to Hillsborough County Environmental Protection Commission prior to 90 days before the expiration date of this permit. The applicant may continue to operate in compliance with all terms of this construction permit until its expiration or until issuance of an operation permit.
19. Upon obtaining an operating permit, the applicant will be required to submit annual reports on the actual operation of the facility. These reports will include, as a minimum: type and quality of phosphate rock processed; type, quantity and sulfur content (average and maximum for each type) of fuel used; total hours of operation of the dryer and emission test reports for particulate matter and sulfur dioxide.

PERMITTEE: AMAX Phosphate, Inc. I. D. Number:
Permit Number: AC 29-65834
Date of Issuance:
Expiration Date: March 1, 1984

SPECIFIC CONDITIONS:

20. Permits to operate the dry rock storage (AO 29-20564) and shipping (AO 29-20563) facilities will be modified to reflect the new hours of operation before March 1, 1984.
21. The applicant will be required to do periodic compliance tests (annually for the department and semiannually for the County) for particulate matter, opacity, and sulfur dioxide.

Issued this 7 day of October, 1983.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION



VICTORIA J. TSCHINKEL, Secretary

_____ Pages attached.

GENERAL CONDITIONS

1. The permittee shall notify the permitting authority in writing of the beginning of construction of the permitted source within 30 days of such action and the estimated date of start-up of operation.
2. The permittee shall notify the permitting authority in writing of the actual start-up of the permitted source within 30 days of such action and the estimated date of demonstration of compliance as required in the specific conditions.
3. Each emission point for which an emission test method is established in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the permitting authority of the scheduled date of compliance testing at least thirty (30) days in advance of such test. Compliance test results shall be submitted to the permitting authority within forty-five (45) days after the complete testing. The permittee shall provide (1) sampling ports adequate for test methods applicable to such facility, (2) safe sampling platforms, (3) safe access to sampling platforms, and (4) utilities for sampling and testing equipment.
4. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years from the date of recording.
5. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall immediately notify the State District Manager by telephone and provide the District Office and the permitting authority with the following information in writing within four (4) days of such conditions:
 - (a) description for noncomplying emission(s),
 - (b) cause of noncompliance,
 - (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,

(d) steps taken by the permittee to reduce and eliminate the noncomplying emission,

and

(e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of this report does not constitute a waiver of the emission limitations contained within this permit.

6. Any change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that will result in new or increased emissions must be reported to the permitting authority. If appropriate, modifications to the permit may then be made by the permitting authority to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein.
7. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit by letter and forward a copy of such letter to the permitting authority.
8. The permittee shall allow representatives of the State environmental control agency or representatives of the Environmental Protection Agency, upon the presentation of credentials:
 - (a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
 - (b) to have access to any copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Act;
 - (c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;

(d) to sample at reasonable times any emission of pollutants;

and

(e) to perform at reasonable times an operation and maintenance inspection of the permitted source.

9. All correspondence required to be submitted to this permit to the permitting agency shall be mailed to:

Mr. James T. Wilburn
Chief, Air Management Branch
Air & Waste Management Division
U.S. EPA, Region IV
345 Courtland Street, NE
Atlanta, GA 30365

10. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

The emission of any pollutant more frequently or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) DETERMINATION
AMAX PHOSPHATE, INC.
Hillsborough County

The applicant plans to use an alternate fuel to fire an existing 300 ton per hour (118 million Btu per hour heat input) fluidized bed phosphate rock dryer in operation at their Big Four phosphate mine located near Fort Lonesome, Florida. The source is presently permitted to fire residual oil containing a maximum of 0.7 percent sulfur. The applicant plans to fire residual oil or a coal-oil-water mixture (COWM) both fuels having a 2.5 percent sulfur content. In addition to the fuel change, the applicant has requested the permitted annual operating hours to be increased from 7488 to 8760. Resultant air pollutant emissions are summarized in Table 1.

Table 1

Pollutant	DRYER EMISSIONS (tons/year)		
	Particulates	SO ₂	NO _x
Present	39	354	99
Planned-OIL	79	569	115
-COWM	79	569	156
Increase	40	215	57
Significant Rate	25	40	40

The increase in the rock dryer operating hours will result in a production increase of 382,000 tons per year. The movement of this additional tonnage to dry rock storage and shipping will increase particulate emissions an additional 3 tons per year.

The rock dryer exhaust gases discharge through a cyclone separator into a Peabody Engineering Company, Type M160 impingement scrubber. Present permit conditions limit particulate emission to 0.034 pounds per hour and 0.73 pounds SO₂ per million Btu based upon firing oil containing 0.7 percent sulfur. The phosphate rock dryer is currently operating per conditions of FDER permit number A029-22821, which limits dryer operation to 7488 hours per year.

The change in operation of the phosphate rock dryer will result in an increase in emissions and is therefore a modification per Rule 17-2.100(102), FAC. The source is subject to Rule 17-2.500 FAC, Prevention of Significant Deterioration (PSD). A BACT determination is required for all pollutants for which emissions will increase above the significant levels listed in Table 500-2. A BACT determination will be required for the pollutants sulfur dioxide, particulate matter and nitrogen oxides.

BACT Determination Requested by the Applicant:

Air pollutant emission limits from the phosphate rock dryer to be; 0.06 pounds particulate matter per ton of wet rock feed; 1.1 pounds sulfur dioxide per million Btu heat input; 0.30 pounds of nitrogen oxides per million Btu heat input.

Date of Receipt of a BACT Application:

February 10, 1983

Date of Publication in the Florida Administrative Weekly:

February 25, 1983

Review Group Members:

Willard Hanks - New Source Review, BAQM
Tom Rogers - Air Modeling Section, BAQM
Dan Williams - DER Southwest District Office.

BACT Determined by DER:

Big Four Mine 300 ton per hour rock dryer:

<u>Pollutant</u>	<u>Emission Limit</u>
Particulates	0.06 pounds per ton of wet rock feed.
Sulfur Dioxide	1.1 pounds per million Btu heat input.
NO _x	0.30 pounds per million Btu heat input
Visible Emission	Not to exceed 10% opacity

Compliance with the particulate emission limit will be in accordance with 40 CFR 60, Appendix A; Methods 1, 2, 3, and 5. Compliance with the sulfur dioxide emission limit will be in accordance with DER Method 6. Compliance with the opacity of emissions limitation will be in accordance with DER Method 9.

BACT Determination Rationale:

The source was originally permitted in 1976. The particulate emission limit was 0.03 grains per SCF at an exhaust gas flow rate of 40,000 SCFM. A New Source Performance Standard (NSPS), Subpart NN, was promulgated April 16, 1982 which limits particulate emission from this source to 0.06 pounds per ton of phosphate rock feed. Any source which is modified after September 21, 1979 is subject to the requirements of this NSPS.

The applicant has requested that the particulate emission limit be changed to the NSPS particulate emission limit of 0.06 pounds per ton of dryer feed. Three test runs were made with the dryer operating at 84% of capacity and firing a coal-oil-water mixture. The average stack gas flow rate was 54,837 DSCFM. The emission rate, using the 0.03 gr/SCF standard, is 14.1 lb/hr or 0.055 lbs/ton feed. Based upon the new information presented, the Department agrees with the applicant's request that BACT be equal to the NSPS particulate standard of 0.06 pounds per ton of dryer feed.

The intent of the original permit condition was to control sulfur dioxide emissions by limiting the fuel sulfur content. Data has been presented to the Department showing that SO₂ removal efficiency inherent in the process is a function of dryer feed stock and fuel sulfur content. The Department agrees with the applicant that, in this case, controlling SO₂ emissions by limiting fuel sulfur content does not allow the applicant fuel flexibility and therefore to take advantage of the SO₂ removed in the process.

The Department has determined BACT to be 1.1 pounds SO₂ per million Btu heat input. This process-rate standard determined as BACT is a reasonable compromise to protect our environment and still allow the applicant cost flexibility by using various grades and types of fuel.

A practical method to remove NO_x from a phosphate rock dryer is yet to be demonstrated. In the typical combustion process of fuels with excess air, the high temperature of combustion causes the nitrogen and oxygen in the air to combine to form nitric oxide. Then, as the hot gases move away from the source of high temperature, further oxidation takes place, and nitrogen dioxide is formed. The amount of excess air used and the method of firing a rock dryer tempers the combustion temperature and consequently the NO_x produced. The NO_x emission rate of 0.30 pounds per million Btu heat input proposed by the applicant is determined as BACT.

The applicant presently uses residual oil as fuel to fire the dryer. The applicant also plans to fire a coal-oil-water mixture (COWM) as an alternate fuel. COWM is a viscous liquid which is handled the same as residual oil. No major modifications, except burner nozzles, were made to the fuel handling system. The source was considered capable of accommodating the new fuel.

Details of the Analysis May be Obtained by Contacting:

Edward Palagyi, BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Recommended By:

C. H. Thomas for
C. H. Fancy, Deputy Bureau Chief

Date: Oct. 7, 1983

Approved:

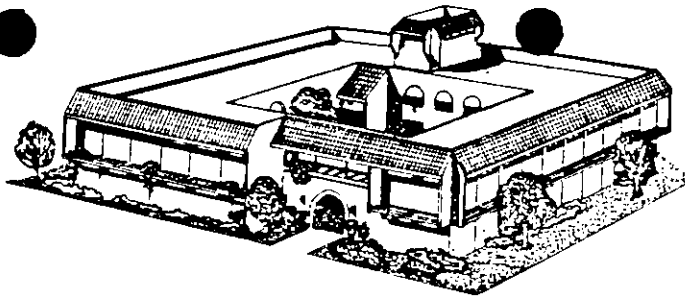
Victoria J. Tschinkel
Victoria J. Tschinkel, Secretary

Date: Oct 7, 1983

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION

COMMISSION

E. L. BING
RODNEY COLSON
MATT JETTON
JOHN R. PAULK
JAN KAMINIS PLATT



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DIRECTOR

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TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

September 20, 1983

Mr. Willard Hanks
Florida Department of Environmental Regulations
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

DER
SEP 23 1983
BAQM

Dear Mr. Hanks:

This letter is in response to the Preliminary Determination on AMAX's Big Four Mine rock dryer and our recent telephone conversation. As we discussed, the Hillsborough County Environmental Protection Commission (EPC) is working with AMAX to attach a specific condition to the permit to require that AMAX maintain an existing ambient air monitoring network. Debra Sanderson of this office spoke with Fred Mullins to confirm AMAX's commitment on this. It is my understanding that Mr. Mullins will call you to reassure the BAQM that AMAX will not reject the monitoring requirement once the permit is issued.

The EPC recommends that the following specific conditions be attached to AMAX's construction permit for the dryer:

1. AMAX Chemical Corporation's, Big Four Mine sampling locations by UTM coordinates shall be:

#1 - 478.00E, 1245.39N
#2 - 475.00E, 1233.70N
#3 - 477.00E, 1225.33N
2. Total Suspended Particulate (TSP), Fluoride in TSP and sulfur dioxide will be monitored for 24 hours every 6th day according to the National Air Sampling Network schedule at Sites 1,2, and 3.
3. TSP and sulfur dioxide sample collection and analysis shall be performed according to Federal Reference Methods as outlined in the Code of Federal Regulations, Part 50, Appendices A and B.
4. The quality Assurance requirements as defined in the Code of Federal Regulations Part 58, Appendix A shall be followed for TSP and Sulfur Dioxide sampling. AMAX Chemical Corporation is understood to be a single reporting organization for its ambient air sampling activities in Hillsborough County.
5. Quarterly data reports shall be submitted to the Hillsborough County Environmental Protection Commission including precision and accuracy data.

Mr. Willard Hanks
RE: AMAX's Big Four Mine
Page Two

If you have any questions or problems with these conditions, please contact Debra or myself.

Sincerely,



Jerry Campbell
Environmental Engineer II
Hillsborough County Environmental
Protection Commission

JC/ljh

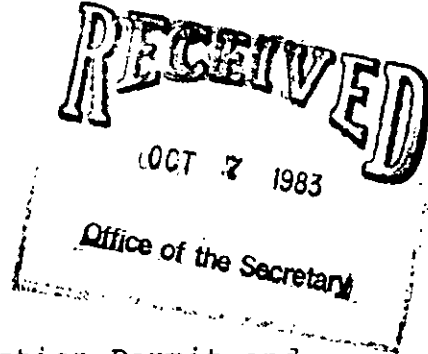
cc: Bill Thomas
Fred Mullins
Fred Crabill

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional	Reply Required	Info. Only
Date Due: _____	Date Due: _____	

TO: Victoria J. Tschinkel
FROM: Clair Fancy *BS*
DATE: October 5, 1983
SUBJ: Approval of Attached Air Construction Permit and
BACT Determination



Attached for your approval and signature is one Air Construction Permit and BACT determination for which the applicant is AMAX Phosphate, Inc. The construction proposed is the Big Four Mine phosphate rock dryer at Fort Lonesome, Hillsborough County, Florida.

Day 90, after which the permit would be issued by default, is October 11, 1983.

The Bureau recommends your approval and signature.

CF/pa

Attachment