

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF PERMIT

In the matter of an  
Application for Permit by:

DEP File No. AC 41-232096  
PSD-FL-205  
Manatee County

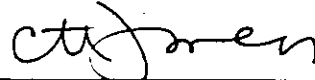
Mr. Ivan Nance  
Piney Point Phosphates, Inc.  
13300 U.S. Highway 41 North  
Palmetto, Florida 34221-8662

Enclosed is Permit Number AC 41-232096 [PSD-FL-205] to replace an existing 96 MMBtu/hour boiler with a new 190 MMBtu/hour process boiler and increase the operating hours from 876 to 8760 hours/year at the Piney Point Phosphates, Inc. facility in Palmetto, Manatee County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



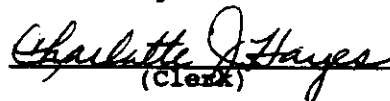
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 9/23/94 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,  
on this date, pursuant to  
§120.52(11), Florida Statutes,  
with the designated Department  
Clerk, receipt of which is hereby  
acknowledged.

  
(Clerk)

9/23/94  
(Date)

Copies furnished to:  
Bill Thomas, SW District  
Rob Baum, Manatee County  
John Bunyak, NPS  
Jewell Harper, U.S. EPA  
Doug Beason, OGC  
John Koogler, K & A

Final Determination

Piney Point Phosphates, Inc.  
Manatee County  
Palmetto, Florida

Construction Permit Modification  
Permit No. AC 41-232096  
PSD-FL-205

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

September 15, 1994

Final Determination

Piney Point Phosphates, Inc.

AC 41-232096

PSD-FL-205

The application for a permit from Piney Point Phosphates to construct a new 190 MMBtu/hr process boiler and increase the operating hours from 876 to 8760 hours per year has been reviewed by the Bureau of Air Regulation. The existing 96 MMBtu/hour boiler shall be permanently shut down when its new 190 MMBtu/hour process boiler has been constructed and in operation. Public Notice of the Department's Intent to Issue the construction permit was published in the Bradenton Herald on June 24, 1994.

Copies of the preliminary determination has been available for public inspection at the Department's Southwest District office in Tampa, at the Manatee County Environmental Action Commission in Bradenton, and at the Department's Bureau of Air Regulation office in Tallahassee.

Comments were received from EPA and concurred with the proposed permit and BACT.

The final action of the Department will be to issue the permit as noticed during the public notice period.



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

**Piney Point Phosphates, Inc.**  
13300 US Highway 41 North  
Palmetto, FL 34221-8662

**Permit No. : AC 41-232096**  
**PSD-FL-205**  
**Exp. Date : July 1, 1995**  
**County : Manatee**  
**Lat./Long. : 27°37'58"N**  
**82°32'08"W**  
**Project : 190 MMBtu/hour**  
**Process Steam Boiler**

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-210, 62-212, 62-272, 62-275, 62-296, and 62-297; and, 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and specifically described as follows:

For the construction of a 190 MMBtu/hour process steam boiler. This boiler is permitted to be fired with new No. 2 distillate fuel oil only. The maximum fuel consumption rate will be 1349 gallons/hour and the maximum heat input rate will be 190 MMBtu/hour while producing a maximum of 150,000 pounds/hour of steam. The boiler may be operated at 8760 hours/year. Nitrogen oxides emissions will be controlled with low-NO<sub>x</sub> burners, flue gas recirculation, and proper operation practices. Sulfur dioxide emissions will be controlled by only firing No. 2 fuel oil containing no more than 0.05% sulfur, by weight. The facility will be located at 13300 US Highway 41 North, Palmetto, Manatee County, Florida.

The UTM coordinates of this facility are Zone 17, 348.5 km E and 3057.3 km N.

The source/emission unit shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

**Attachments are listed below:**

1. Application received May 28, 1993.
2. DEP letter dated June 24, 1993.
3. KA letter dated July 30, 1993
4. KA letter dated September 17, 1993.
5. KA memorandum dated November 22, 1993.
6. KA letter dated January 18, 1994.
7. EPA letter dated July 15, 1994.

**PERMITTEE:**  
**Piney Point Phosphates, Inc.**

**Permit Number : AC 41-232096**  
**PSD-FL-205**  
**Expiration Date: July 1, 1995**

**GENERAL CONDITIONS:**

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

**PERMITTEE:**  
Piney Point Phosphates, Inc.

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**GENERAL CONDITIONS:**

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

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

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

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

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

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

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

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

**PERMITTEE:**  
**Piney Point Phosphates, Inc.**

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**PSD-FL-205**  
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**GENERAL CONDITIONS:**

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

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

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the dates analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and,
  - the results of such analyses.

**PERMITTEE:**  
Piney Point Phosphates, Inc.

**Permit Number :** AC 41-232096  
PSD-FL-205  
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**GENERAL CONDITIONS:**

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 corrected promptly.

**SPECIFIC CONDITIONS:**

1. This permit, AC 41-232096, shall be valid only when the permittee formally surrenders permits AC 41-226205 and AC 41-211848. Issuance of this permit AC 41-232096 constitutes revocation of AC 41-226205 and AC 41-211848. When the new 190 MMBtu per hour boiler is constructed and in operation the existing 96 MMBtu per hour boiler shall be permanently shut down. Until that time the 96 MMBtu per hour boiler is authorized to operate under the conditions of AO 41-156789.

Construction Details

2. Construction of the proposed process steam boiler shall reasonably conform to the plans described in the application. The facility shall be designed, constructed, and operated so that its maximum heat input and maximum fuel consumption shall not exceed 190 MMBtu per hour and 1349 gallons per hour of new\* No. 2 distillate fuel oil, respectively. The sulfur content of the fuel oil shall not exceed 0.05%, by weight, which is defined as "very low sulfur oil in 40 CFR 60.41b." The permittee shall provide the Department with engineering, monitoring, and reporting plans for the process steam boiler within 30 days after the plans become available.

\* New oil means an oil which has been refined from crude oil and has not been used in any manner that may contaminate it.

3. The stack sampling facilities (sample ports, work platforms, access, and electrical power) must comply with Rule 62-297.345, F.A.C., and 40 CFR 60.8(e).

4. The boiler shall be equipped with instruments to measure the fuel feed rate, steam production, steam pressure, and steam temperature.

5. The boiler shall be equipped with:

- Low-NO<sub>x</sub> burners designed for a maximum reduction in oxides of nitrogen; and,
- Induced flue gas recirculation technology which will maximize the dilution of oxygen rich combustion air with oxygen deficient recirculated flue gas.



**PERMITTEE:**  
Piney Point Phosphates, Inc.

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**SPECIFIC CONDITIONS:**

6. The permittee shall construct and install a continuous emission monitoring device on the boiler exhaust for opacity. The continuous emission monitoring device shall meet the applicable requirements of Rule 62-297.500, F.A.C., and 40 CFR 60.48b(a).

7. During land clearing and site preparation, wetting operations or other soil treatment techniques appropriate for controlling unconfined particulates, including grass seeding and mulching of disturbed areas, shall be undertaken and implemented. Any open burning of land clearing debris on this site shall be performed in accordance with Chapters 62-256 and 5I-2, F.A.C., and all applicable local regulations.

Operational and Emission Restrictions

8. The issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-210, 62-212, 62-272, 62-275, 62-296, 62-297 and 62-4, F.A.C. or any other requirements under federal, state or local law (Rule 62-210.300, F.A.C.).

9. This process steam boiler is subject to and shall meet all the applicable requirements of 40 CFR 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) of the Federal New Source Performance Standards (NSPS) (Rule 62-296.800, F.A.C.).

10. The maximum permitted operating hours for this process steam boiler is 8760 hours/year.

11. The visible emissions from this process steam boiler shall not exceed 20% opacity (6-minute average), except for one 6-minute period per hour during which the opacity shall not exceed 27%. These opacity standards shall apply at all times, except during periods of startup, shutdown or malfunction.

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**SPECIFIC CONDITIONS:**

12. The maximum allowable emission rates for the process boiler based on a No. 2 distillate fuel oil consumption of 1349 gallons/hour shall not exceed the following limits:

190 MMBtu/hour Process Boiler  
Maximum Allowable Emission

Pollutant	lbs/hr	TPY*
PM/PM <sub>10</sub>	2.7	11.8
SO <sub>2</sub>	9.6	42.0
NO <sub>x</sub>	28.5	124.8

\*Based on 8760 hours of operation per year

13. The Best Available Control Technology (BACT) determination for controlling NO<sub>x</sub> emissions was determined to be flue gas recirculation and low-NO<sub>x</sub> burners. [Rule 62-296.330, F.A.C.]

Compliance Requirements

14. The process steam boiler shall conduct performance tests for the pollutants listed in specific condition No. 12 and visible emissions within 60 calendar days after achieving the maximum firing rate at which this boiler will be operated, but no later than 180 operating days after initial startup. The permittee shall conduct performance and visible emissions tests during normal operations (at or no less than 90% of the maximum heat input). A written report of the performance test results shall be submitted to the Department within 45 days after the test. The performance tests shall be conducted according to the requirements of 40 CFR 60, Subpart Db, and Rule 62-296.800, F.A.C.

15. Compliance with the pollutants respective maximum allowable emission limits referenced in specific condition No. 12 shall be demonstrated using the applicable EPA methods as contained in 40 CFR 60, Appendix A (July 1, 1993 version), and adopted by reference in Chapter 62-297, F.A.C. The prescribed methods for those pollutants other than SO<sub>2</sub> are contained in the following table. The test method for SO<sub>2</sub> is contained in specific condition No. 16. The minimum test requirements for new stationary source emissions test procedures and reporting requirements shall be in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.

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**SPECIFIC CONDITIONS:**

<u>For Determination of</u>	<u>U.S. EPA. Test Method</u>
Sample and Velocity Traverse	Method 1
Velocity and Volumetric Flow Rate	Method 2
Particulate Matter (PM)/(PM <sub>10</sub> )	Method 3A or 3B with Method 5/201 or 201A
Opacity	Method 9
Nitrogen Oxides (NO <sub>x</sub> )	Method 7, 7A, 7E or 19

16. SO<sub>2</sub> emissions shall be determined in accordance with Section 5.2.2 of EPA Method 19. Calculations of SO<sub>2</sub> emissions shall be based on the sulfur content of the fuel as determined by the supplier pursuant to 40 CFR 60.45b(j) and 40 CFR 60.49b(r).

17. The permittee shall comply with the excess emissions rule contained in Rule 62-210.700, F.A.C. The permittee is allowed excess emissions during startup conditions, provided such excess emissions do not exceed a duration of two hours.

18. The permittee shall notify the appropriate Air Sections of the Department, Manatee County Environmental Action Commission and the Southwest District Office of the Department in writing at least 15 days prior to the date on which each compliance test is to begin. The notification will include the date, time, and place of each test, and the test contact person who will be responsible for coordinating and having such test conducted (Rule 62-297.340 (1)(i), F.A.C.).

19. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of rated capacity. If it is impractical to test at capacity, then sources may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Department.

Monitoring and Recordkeeping Requirements

20. The permittee shall calibrate, maintain and operate a continuous emission monitoring system for opacity, and record the output of the system on a 6-minute average opacity basis (Rule 62-296.800, F.A.C.; and, 40 CFR 60.48b(a), Subpart Db).

**PERMITTEE:**  
Piney Point Phosphates, Inc.

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PSD-FL-205  
**Expiration Date:** July 1, 1995

**SPECIFIC CONDITIONS:**

21. The permittee shall maintain daily records of the hours of operation of the process steam boiler along with the quantity of fuel burned. On a monthly basis, the annual hours of operation of the boiler for the previous 12 months shall be determined and included in the records (Rule 62-4.070(3), F.A.C.).

22. The permittee shall maintain the daily continuous monitoring records as required by 40 CFR 60.49b(g) and Rules 62-296.800 and 62-297.500, F.A.C.

23. If the permittee elects to demonstrate compliance with the nitrogen oxides emission standard by monitoring steam generator unit operating conditions and predict nitrogen oxides emission rates, the permittee shall submit a plan for approval as specified in 40 CFR 60.49b(c).

24. In order to document continuing compliance with Specific Condition No. 2, the permittee shall obtain and maintain at the facility fuel oil analysis from the fuel oil supplier which certifies that the oil received for firing in this boiler meets the specifications for No. 2 distillate fuel oil [Rules 62-4.070(3), 62-296.800, and 62-297.500, F.A.C.; and, 40 CFR 60.49b(r)].

25. All records required by this permit and/or 40 CFR 60.49b, shall be retained for a minimum of two years following the date of such records and be made available for inspection by the Department upon request [Rules 62-4.070(3), 62-296.800, and 62-297.500, F.A.C.; and, 40 CFR 60.49b(o)].

Reporting Requirements

26. The permittee shall submit quarterly opacity and nitrogen oxide excess emission reports in accordance with 40 CFR 60.7(c) and 40 CFR 60.49b(h) and (i). If there are no excess emissions during a calendar quarter the permittee shall submit a report stating that no excess emissions occurred during the reporting period [Rules 62-296.800 and 62-297.500, F.A.C.; and, 40 CFR 60.49b(h)].

27. The permittee shall submit quarterly reports certifying that only No. 2 distillate fuel oil with a maximum sulfur content of 0.05% by weight was fired in this boiler in the preceding calendar quarter [Rules 62-4.070(3), 62.296.800 and 62-297.500, F.A.C.; and, 40 CFR 60.49b(r)].

28. All reports required by this permit and/or 40 CFR 60.49b shall be submitted to the Air Sections of the Manatee County Environmental Action Commission and the Southwest District Office of the Department. All quarterly reports shall be postmarked by the 30th day following the end of the calendar quarter.

PERMITTEE:  
Piney Point Phosphates, Inc.

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**SPECIFIC CONDITIONS:**

29. The permittee shall submit to the Air Sections of the Manatee County Environmental Action Commission and the Southwest District Office of the Department each calendar year on or before March 1 a completed DEP Form 17-213.900(4), an "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year [Rule 62-210.300(2), F.A.C.].

30. The permittee shall provide the Southwest District office with the following notifications required by 40 CFR 60.7:

- When construction commenced within 30 days of commencement of construction
- Anticipated date of initial starting 30 to 60 days prior to startup
- Actual date of startup within 15 days after the starting
- Notification of the date of the compliance tests not less than 15 days prior to the test

Permitting Requirements

31. Any change in the method of operation, fuels or equipment that affect potential emissions shall be submitted to the Air Sections of the Manatee County Environmental Action Commission and the Southwest District Office of the Department for review and approval (Rule 62-212.200(46), F.A.C.).

32. All applicable rules of the Department and design discharge limitations specified in the application must be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction (Rule 62-4.070(7), F.A.C.).

33. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.090, F.A.C.).

34. An operation permit application must be submitted to the Southwest District Office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate

**PERMITTEE:**  
Piney Point Phosphates, Inc.

Permit Number : AC 41-232096  
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**SPECIFIC CONDITIONS:**

application form, fee, and certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (Rules 62-4.055 and 62-4.220, F.A.C.).

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell  
Virginia B. Wetherell, Secretary  
Department of Environmental  
Protection

Best Available Control Technology (BACT) Determination  
Piney Point Phosphates, Inc.  
Manatee County  
AC 41-232096  
PSD-FL-205

The applicant has submitted a request to increase the maximum operating hours for the existing auxiliary boiler at its Palmetto, Florida facility from 876 hours/year to 8760 hours/year. The maximum heat input and consumption of new No. 2 distillate fuel oil is 190 MMBtu/hour and 1349.0 gallons per hour (gph), respectively. The new No. 2 distillate fuel oil will contain no more than 0.05%, by weight, of sulfur.

A BACT determination is required for nitrogen oxides (NO<sub>x</sub>), as set forth in Rule 62-212.400(5)(a), (b) and (c), Florida Administrative Code (F.A.C.) - Prevention of Significant Deterioration (Preconstruction Review Requirements), since this pollutant would be emitted in amounts exceeding the PSD-significant levels as follows:

<u>Pollutant</u>	<u>Actual Emissions</u>	<u>Proposed Emissions</u>	<u>Increase</u>	<u>PSD-Significant Levels</u>
NO <sub>x</sub>	11.0 TPY	166.4 TPY	155.4 TPY	40 TPY

The Department performed a BACT determination for NO<sub>x</sub>, since the proposed emissions for this pollutant exceeded the PSD significant rate of 40 tons per year. A BACT determination is required for particulate matter (PM) and sulfur dioxide (SO<sub>2</sub>) in accordance with Rule 62-296.406, F.A.C.

**BACT Determination Requested by the Applicant:**

The applicant submitted the control of NO<sub>x</sub> emissions using low-NO<sub>x</sub> burners in conjunction with induced flue gas recirculation as a BACT determination. The applicant has proposed using distillate No. 2 fuel oil with a sulfur content not to exceed 0.05 percent, by weight, for compliance with the emission limits for PM and SO<sub>2</sub>, which would not exceed the emission limits allowed under Rule 62-296.406, F.A.C.

**Submittal Date of BACT Application:**

May 28, 1993

**BACT Determination Procedure:**

In accordance with Rule 62-212.410, F.A.C., BACT Determination, Stationary Source-Preconstruction Review, this BACT determination is based on the maximum degree of reduction of each pollutant

emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to 40 CFR 52.21, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

**DEP BACT Determination:**

Nitrogen Oxide (NO<sub>x</sub>) emissions shall not exceed 0.15 pounds/MMBtu of heat input while utilizing low-NO<sub>x</sub> burners in conjunction with flue gas recirculation. The boiler shall be fired with distillate fuel oil with a sulfur content not to exceed 0.05 percent, by weight.

**BACT Determination Rationale:**

Sulfur content in fuel oil is a primary air pollution concern since most of the fuel sulfur becomes sulfur dioxide (SO<sub>2</sub>). Also, particulate matter emissions from fuel oil burning are related to sulfur content. The Department has determined that the firing of No. 2 fuel oil with a maximum of 0.05% sulfur content is BACT for particulates and SO<sub>2</sub>. These sulfur content limitations are representative of what has been recently established as BACT for oil-fired equipment.



The emission rate of nitrogen oxides proposed by the applicant is 0.20 pound per million BTU heat input. NO<sub>x</sub> emissions will be controlled by using low-NO<sub>x</sub> burners and flue gas recirculation. A review of other BACT determinations for oil fired boilers indicates that the proposed emission level for nitrogen oxides is higher than several of the determinations on record and that an emissions level of 0.15 pounds of nitrogen oxides per million Btu heat input is achievable on new boilers. Additional NO<sub>x</sub> control could be provided by using add on control devices, such as selective catalytic reduction (SCR) or selective noncatalytic reduction (SNCR). The applicant indicated that the costs for these technologies would range from \$6,675 to \$9,557 per ton of NO<sub>x</sub> removed. Other reviews of these control technologies indicates a cost effectiveness ranging from \$6802 to \$7321 per ton of NO<sub>x</sub> removed. These costs exceed those which have been previously judged to be representative of BACT, thereby dismissing these technologies as BACT for this facility. Based on the manufacturers information, a 0.15 pounds of nitrogen oxides per million BTU heat input is achievable and, therefore, is considered BACT for this source.

Details of the Analysis May be Obtained by Contacting:

John C. Brown, Jr., P.E.  
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

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

9/15, 1994  
Date

Virginia B. Wetherell  
Virginia B. Wetherell, Secretary  
Dept. of Environmental Protection

9-22-94, 1994  
Date

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
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- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1.  Addressee's Address

2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
Mr. Ivan Nance  
Piney Point Phosphates, Inc.  
13300 U.S. Highway 41 North  
Palmetto, FL 34221-8662

4a. Article Number  
P 751 859 983

4b. Service Type  
 Registered     Insured  
 Certified     COD  
 Express Mail     Return Receipt for Merchandise

7. Date of Delivery  
9/28/94

5. Signature (Addressee)

6. Signature (Agent)

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

PS Form 3811, December 1991    \*U.S. GPO: 1992-323-402    **DOMESTIC RETURN RECEIPT**

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Z 751 859 983



**Receipt for Certified Mail**

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

Send to	Mr. Ivan Nance, Piney Point
Street and No.	13300 U.S. Highway 41 North Phosphates
P.O., State and ZIP Code	Palmetto, FL 34221-8662
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	Mailed: 9-23-94 Permit: AC 41-232096 PSD-FL-205

PS Form 3800, March 1993

Florida Department of  
**Environmental Protection**

**Memorandum**

TO: Virginia Wetherell  
FROM: Howard L. Rhodes *HLR*  
DATE: September 14, 1994  
SUBJECT: Approval of Construction Permit  
AC 41-232096, PSD-FL-205  
Piney Point Phosphates, Inc.

Attached for your approval and signature is a construction permit and Best Available Control Technology (BACT) Determination prepared by the Department's Bureau of Air Regulation for the subject facility. This permit will allow the facility to replace an existing 96 MMBtu/hour steam boiler with a new 190 MMBtu/hour process steam boiler and to increase the operating hours from 876 to 8760 hours per year.

Nitrogen oxide (NO<sub>x</sub>) emissions will be controlled and minimized by utilizing low-NO<sub>x</sub> burners in conjunction with flue gas recirculation. Sulfur dioxide and particulate matter emissions will be controlled and minimized by firing only low sulfur No. 2 fuel oil.

The facility is located in Palmetto, Manatee County, Florida. Comments were received from EPA during the public comment period and concurred with the proposed permit and BACT.

I recommend your approval and signature.

HLR/CSL/bjb

Attachment

Memorandum

Florida Department of  
Environmental Protection

CLAIR  
TO VW  
9/19

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