

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

In the matter of an
Application for Permit by:

Mr. Kenneth V. Ford
Seminole Fertilizer Corporation
P. O. Box 471
Bartow, Florida 33830

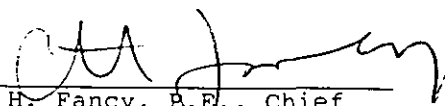
DER File No. AC53-216288
PSD-FL-191
Polk County

Enclosed is Permit Number AC53-216288 (PSD-FL-191) for the modifications to sulfuric acid plants Nos. 4, 5, and 6 at your phosphate fertilizer chemical plant located on Highway 60 West, Bartow, Polk County, Florida 33830. These permits are 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 REGULATION

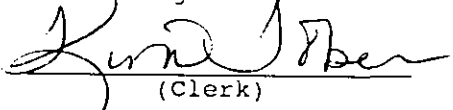

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

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 1-5-93 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) 1-5-93
(Date)

Copies furnished to:
Bill Thomas, SWD
Jewell Harper, EPA
John Koogler, P.E.
Brian Mitchell, NPS

ce on the
this card from
fee will provide
and the date of
ing services are
and check box(es)

to whom, date and address of delivery.

☐ Restricted Delivery.

Article Addressed to:
Kenneth V. Ford
Seminole Fertilizer Corp
PO BOX 471
Bartow, FL 33830

Type of Service: ☐ Registered ☐ Insured ☐ Certified ☐ COD ☒ Express Mail

Article Number
P062 921 943

Always obtain signature of addressee or agent and
DATE DELIVERED.

Signature - Addressee
Signature - Agent

Date of Delivery
1-7-93

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

DOMESTIC RETURN RECEIPT

P 062 921 943

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

Sent to
Kenneth V. Ford

Street and No.
Seminole Fert.

State and ZIP Code
Bartow, FL

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
AC 53-216288
PSD-FI-191
1-5-93

PS Form 3800, June 1991

Final Determination

Seminole Fertilizer Corporation
Bartow, Polk County, Florida

Sulfuric Acid Plants Nos. 4, 5, and 6 Modification
Permit No. AC53-216288 (PSD-FL-191)

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

December 28, 1992

Final Determination

The Technical Evaluation and Preliminary Determination for the permit to construct (modify) sulfuric acid plants Nos. 4, 5, and 6 at Seminole Fertilizer Corporation's phosphate fertilizer chemical plant located on Highway 60 West, Bartow, Polk County, Florida 33830, was distributed on November 20, 1992. The Notice of Intent to Issue was published in the Polk County Democrat on November 26, 1992. Copies of the evaluation were available for public inspection at the Department's offices in Tampa and Tallahassee.

No comments were submitted on the Department's Intent to Issue the permit. The final action of the Department will be to issue construction permit AC53-216288 (PSD-FL-191) as proposed in the Technical Evaluation and Preliminary Determination.



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

Seminole Fertilizer Corp.
Post Office Box 471
Bartow, Florida 33830

Permit Number: AC53-216288
PSD-FL-191

Expiration Date: Jan. 1, 1994
County: Polk
Latitude/Longitude: 27°54'22"N
81°54'59"W

Project: Sulfuric Acid Plants
Nos. 4, 5, and 6 - Production
Increases to 2280 TPD Per Plant
(6840 TPD total)

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 272, 275, 296 and 297 and 17-4. 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 made a part hereof and specifically described as follows:

For the modifications to the existing Nos. 4, 5, and 6 sulfuric acid plants that will increase each plant's production to 2280 TPD 100% sulfuric acid (6840 TPD total for the three plants). The modifications do not involve physical alteration to these plants. These sources are located at the permittee's phosphate fertilizer manufacturing facility on Hwy 60 West, Bartow, Polk County, Florida 33830. The UTM coordinates of this facility are Zone 17, 409.8 km E and 3087.0 km N.

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

Attachments are listed below:

1. Seminole's application received July 16, 1992.
2. Koogler & Associates' letter dated August 6, 1992.
3. DER's letter dated September 11, 1992.
4. Koogler & Associates' letters dated October 22, 1992.

PERMITTEE:
Seminole Fertilizer Corp.

Permit Number: AC53-216288
PSD-FL-191
Expiration Date: January 1, 1994

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, Florida Statutes. 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), Florida Statutes, 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 Florida Statutes 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

PERMITTEE:
Seminole Fertilizer Corp.

Permit Number: AC53-216288
PSD-FL-191
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

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 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

PERMITTEE:
Seminole Fertilizer Corp.

Permit Number: AC53-216288
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Expiration Date: January 1, 1994

GENERAL CONDITIONS:

arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. 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 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 17-4.120 and 17-30.300, 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

PERMITTEE:
Seminole Fertilizer Corp.

Permit Number: AC53-216288
PSD-FL-191
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

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.

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. The maximum production rate of each of the sulfuric acid plants (Nos. 4, 5, and 6) shall not exceed 2280 tons per day based on 100% H_2SO_4 (6840 TPD for three plants).

2. Sulfur dioxide emissions from each plant shall not exceed 4 lbs/ton of 100% sulfuric acid produced, 380.0 lbs/hr, and 1664.4 tons/yr.

3. Sulfuric acid mist emissions from each plant shall not exceed 0.15 lb/ton of 100% sulfuric acid produced, 14.3 lbs/hr, and 62.4 tons/yr.

4. Nitrogen oxides emissions from each plant shall not exceed 0.12 lb/ton of 100% sulfuric acid produced, 11.4 lbs/hr, and 49.9 tons/yr.

The nitrogen oxides limits are subject to revision if sufficient test data indicate that the emission factor is improper.

PERMITTEE:
Seminole Fertilizer Corp.

Permit Number: AC53-216288
PSD-FL-191
Expiration Date: January 1, 1994

SPECIFIC CONDITIONS:

5. Sulfuric Acid Plant No. 3 with its ammonia scrubber shall cease operation, be rendered inoperable, and its operation permit (A053-176431) surrendered to the Department prior to the expiration of this construction permit.

6. Visible emissions from each plant shall not exceed 10% opacity.

7. A continuous emission monitor shall be used to monitor sulfur dioxide emissions from each plant in accordance with 40 CFR 60, Subpart H (July 1, 1992), Standards of Performance for Sulfuric Acid Plants. Initial and annual compliance tests shall be conducted using: EPA Method 7E for nitrogen oxides, EPA Method 8 for sulfur dioxide and acid mist, and EPA Method 9 for visible emissions as described in 40 CFR 60, Appendix A (July 1, 1992).

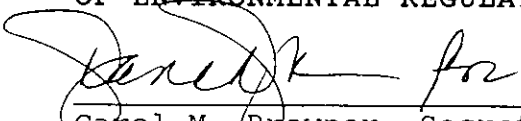
8. The compliance tests shall be conducted at 90 to 100% of the permitted capacity (2052 - 2280 TPD sulfuric acid production). The Department's Southwest District office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to that office within 45 days of test completion.

9. 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 (F.A.C. Rule 17-4.090).

10. An application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. The operation permit application shall include a set of conditions acceptable to the Department for sequential startup/shutdown of the permittee's sulfuric acid plants. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 31st day
of December, 1992

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Carol M. Browner, Secretary

Best Available Control Technology (BACT) Determination
Seminole Fertilizer Corporation
Polk County

The applicant proposes to increase sulfuric acid production to 2280 tons per day each for the Nos. 4, 5, and 6 sulfuric acid plants (6840 TPD total) that are located at the phosphate fertilizer manufacturing facility on Hwy. 60 West near Bartow, Polk County, Florida 33830.

The proposed project will result in a significant increase in emissions of sulfur dioxide (SO₂) and sulfuric acid mist. The project is therefore subject to Prevention of Significant Deterioration (PSD) review in accordance with F.A.C. Rule 17-212.400.

The BACT review is part of the PSD review requirements in accordance with F.A.C. Rule 17-212.400.

Date of Receipt of a BACT Application: July 16, 1992.

The BACT determination requested by the applicant is presented below:

<u>Control Technology</u>	Double Absorption/Fiber Mist Eliminators
<u>Pollutant</u>	<u>Emission Limits</u>
SO ₂	4 lb/ton of 100% H ₂ SO ₄ produced
Sulfuric Acid Mist	0.15 lb/ton of 100% H ₂ SO ₄ produced
Visible Emissions	10% opacity

Basis of Review:

This determination was based upon input from the applicant, EPA Region IV, and the Bureau of Air Regulation.

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-212.410, Best Available Control Technology 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:

BACT-Seminole Fertilizer Corp.
AC53-216288 (PSD-FL-191)

- (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.

BACT Determined by DER:

<u>Control Technology</u>	Double Absorption/Fiber Mist Eliminators
<u>Pollutant</u>	<u>Emission Limits</u>
SO ₂	4.0 lb/ton of 100% H ₂ SO ₄ produced
Sulfuric Acid Mist	0.15 lb/ton of 100% H ₂ SO ₄ produced
Visible Emissions	10% opacity

BACT Determination Rationale

DER's BACT determination is the same as that proposed by the applicant, determinations completed by other states, and Standards of Performance for Sulfuric Acid Plants, 40 CFR 60 Subpart H, (double absorption process). The process in itself is the control technology for SO₂. The emission limits reflect conversion efficiency of around 99.4% of SO₂ to H₂SO₄. High efficiency mist eliminators are considered BACT for sulfuric acid mist. A review of BACT/LAER Clearinghouse indicates that the double absorption technology and the use of high efficiency mist eliminators is representative of BACT using the top-down approach.

BACT-Seminole Fertilizer Corp.
AC53-216288 (PSD-FL-191)

Environmental Impact Analysis

The impact analysis for the BACT determination is based on 8,760 hours/year operation. Modeling results show that increases in ground-level concentrations are less than PSD significant impact levels for the applicable pollutants.

Conclusion

The incremental impact and the ambient air quality impact from SO₂ emissions due to the proposed modification is in compliance with all air pollution regulations. The impacts associated with the proposed increase in production support the Department's determination that the emission limits established herein represent BACT.

Details of the Analysis May be Obtained by Contacting:

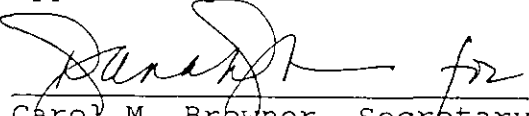
Preston Lewis, P.E.
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:


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

December 28, 1992
Date

Approved by:


Carol M. Browner, Secretary
Dept. of Environmental Regulation

December 31, 1992
Date

Best Available Control Technology (BACT) Determination
Seminole Fertilizer Corporation
Polk County

The applicant proposes to increase sulfuric acid production to 2280 tons per day each for the Nos. 4, 5, and 6 sulfuric acid plants (6840 TPD total) that are located at the phosphate fertilizer manufacturing facility on Hwy. 60 West near Bartow, Polk County, Florida 33830.

The proposed project will result in a significant increase in emissions of sulfur dioxide (SO₂) and sulfuric acid mist. The project is therefore subject to Prevention of Significant Deterioration (PSD) review in accordance with F.A.C. Rule 17-212.400.

The BACT review is part of the PSD review requirements in accordance with F.A.C. Rule 17-212.400.

Date of Receipt of a BACT Application: July 16, 1992.

The BACT determination requested by the applicant is presented below:

Control Technology Double Absorption/Fiber Mist Eliminators

<u>Pollutant</u>	<u>Emission Limits</u>
SO ₂	4 lb/ton of 100% H ₂ SO ₄ produced
Sulfuric Acid Mist	0.15 lb/ton of 100% H ₂ SO ₄ produced
Visible Emissions	10% opacity

Basis of Review:

This determination was based upon input from the applicant, EPA Region IV, and the Bureau of Air Regulation.

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-212.410, Best Available Control Technology 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:

BACT-Seminole Fertilizer Corp.
AC53-216288 (PSD-FL-191)

- (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).
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- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

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BACT Determined by DER:

<u>Control Technology</u>	Double Absorption/Fiber Mist Eliminators
<u>Pollutant</u>	<u>Emission Limits</u>
SO ₂	4.0 lb/ton of 100% H ₂ SO ₄ produced
Sulfuric Acid Mist	0.15 lb/ton of 100% H ₂ SO ₄ produced
Visible Emissions	10% opacity

BACT Determination Rationale

DER's BACT determination is the same as that proposed by the applicant, determinations completed by other states, and Standards of Performance for Sulfuric Acid Plants, 40 CFR 60 Subpart H, (double absorption process). The process in itself is the control technology for SO₂. The emission limits reflect conversion efficiency of around 99.4% of SO₂ to H₂SO₄. High efficiency mist eliminators are considered BACT for sulfuric acid mist. A review of BACT/LAER Clearinghouse indicates that the double absorption technology and the use of high efficiency mist eliminators is representative of BACT using the top-down approach.

BACT-Seminole Fertilizer Corp.
AC53-216288 (PSD-FL-191)

Environmental Impact Analysis

The impact analysis for the BACT determination is based on 8,760 hours/year operation. Modeling results show that increases in ground-level concentrations are less than PSD significant impact levels for the applicable pollutants.

Conclusion

The incremental impact and the ambient air quality impact from SO₂ emissions due to the proposed modification is in compliance with all air pollution regulations. The impacts associated with the proposed increase in production support the Department's determination that the emission limits established herein represent BACT.

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E.
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

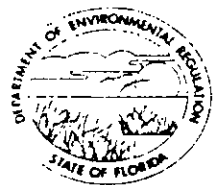

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

December 28, 1992
Date

Approved by:


Carol M. Browner, Secretary
Dept. of Environmental Regulation

December 31, 1992
Date

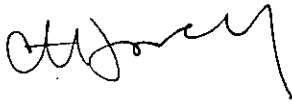


State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To _____	Location _____
To _____	Location _____
To _____	Location _____
From _____	Date _____

Interoffice Memorandum

TO: Carol M. Browner

per FROM: Howard L. Rhodes 

DATE: December 28, 1992

SUBJ: Approval of Construction Permit AC53-216288 (PSD-FL-191)
Seminole Fertilizer Corporation

Attached for your approval and signature is a construction permit and Best Available Control Technology Determination that will allow Seminole Fertilizer Corporation to increase production of their sulfuric acid plants Nos. 4, 5, and 6. These plants are located at the phosphate fertilizer chemical facility on Highway 60 West, Bartow, Polk County, Florida. The increased production can be accomplished without any physical modifications to the plants.

I recommend your approval and signature.

HLR/WH/plm

Attachments