

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
NOTICE OF PERMIT

In the matter of an  
Application for Permit by:

DER File No. AC 29-196763  
PSD-FL-178  
Hillsborough County


Mr. Ozzie Morris, Environmental Manager  
Cargill Fertilizer, Inc.  
8813 Highway 41 South  
Riverview, Florida 33569

Enclosed is Permit Number AC 29-196763 to increase the production rate of the No. 5 Diammonium Phosphate Plant at Cargill's facility in Hillsborough County, Florida, issued pursuant to Section(s) 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

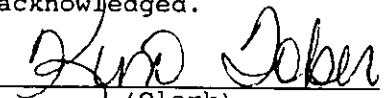
  
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
904-488-1344

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 11-26-91 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) 11-26-91  
(Date)

Copies furnished to:

W. Thomas, SWD  
J. Campbell, EPCHC  
J. Harper, EPA  
C. Shaver, NPS  
D. Buff, P.E.

P 832 538 748



**Certified Mail Receipt**

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

Sent to	
Mr. Ozzie Morris, Gargill	
Street & No. Fertilizer	
8813 Highway 41 South	
PO., State & ZIP Code	
Riverview, FL 33869	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$
Postmark or Date	
Mailed: 11-26-91	
Permit: AC 29-196763	
PSD-FL-178	

PS Form 3800, June 1990

Final Determination

Cargill Fertilizer, Inc.  
Hillsborough County  
Riverview, Florida

No. 5 Diammonium Phosphate Plant  
Production Increase to 67.2 TPD P<sub>2</sub>O<sub>5</sub>

Permit No. AC 29-196763  
PSD-FL-178

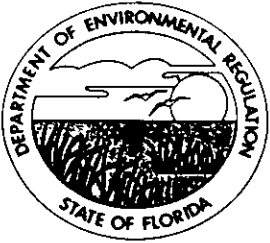
Department of Environmental Regulation  
Division of Air Resources Management  
Bureau of Air Regulation

November 18, 1991

## Final Determination

The Technical Evaluation and Preliminary Determination for the permit to increase the production rate of the No. 5 Diammonium Phosphate Plant at Cargill's facility in Riverview, Hillsborough County, Florida, was distributed on October 14, 1991. The Notice of Intent to Issue was published in the Tampa Tribune on October 16, 1991. Copies of the evaluation were available for public inspection at the Department's Tallahassee and Tampa offices, and the Office of the Environmental Protection Commission of Hillsborough County.

No adverse comments were submitted on the Department's Intent to Issue the permit. Letters were received from the EPA and the Fish and Wildlife service concerning the proposed permit. The final action of the Department will be to issue construction permit AC 29-196763 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:**

Cargill Fertilizer, Inc.  
8813 Highway 41 South  
Riverview, Florida 33569

Permit Number: AC 29-196763  
PSD-FL-178  
Expiration Date: Dec. 31, 1992  
County: Hillsborough  
Latitude/Longitude: 27°51'28"N  
82°23'15"W  
Project: No. 5 Diammonium  
Phosphate Plant - Production  
Increase to 67.2 TPH P<sub>2</sub>O<sub>5</sub>

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

For an increase in production to 67.2 TPH P<sub>2</sub>O<sub>5</sub> in the No. 5 diammonium phosphate plant. This source is located at the permittee's existing facility in Riverview, Hillsborough County, Florida. The UTM coordinates are Zone 17, 362.9 km East and 3082.5 km North.

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. Application received on May 3, 1991.
2. EPCHC's incompleteness letter dated May 21, 1991.
3. DER's incompleteness letter dated May 30, 1991.
4. Cargill's response letter dated June 13, 1991.
5. DER's incompleteness follow-up letter dated July 12, 1991.
6. Cargill's response letter dated August 6, 1991.
7. KBN's modeling analysis letter dated August 26, 1991.
8. EPA's offset determination letter dated August 28, 1991.
9. EPCHC's BACT recommendation letter dated September 23, 1991.

PERMITTEE:  
Cargill Fertilizer, Inc.

Permit Number: AC 29-196763  
PSD-FL-178  
Expiration Date: December 31, 1992

**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

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Cargill Fertilizer, Inc.

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**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

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Cargill Fertilizer, Inc.

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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 records of all data used to complete the application for



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**GENERAL CONDITIONS:**

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. Maximum permitted production rate for the No. 5 diammonium phosphate plant shall be 67.2 TPH P<sub>2</sub>O<sub>5</sub> input. If the production rate exceeds the maximum permitted rate by 10% or more at any time, a compliance test must be conducted after notifying the Department and the Environmental Protection Commission of Hillsborough County (EPCHC) and the results of this test, along with other information listed in Specific Condition No. 9 must be submitted to the Department and the EPCHC within 10 working days.

2. The No. 5 plant may operate 8,760 hours per year.

3. The emissions from the No. 5 plant shall not exceed:

Pollutant	Standard	Maximum Allowable Emissions	
		lb/hr	T/yr
PM/PM <sub>10</sub>	0.19 lb/T P <sub>2</sub> O <sub>5</sub>	12.8	56.0
SO <sub>2</sub>	0.58 lb/T P <sub>2</sub> O <sub>5</sub>	32.4	83.7
Fluoride	0.06 lb/T P <sub>2</sub> O <sub>5</sub>	3.3	14.5

4. Only natural gas or No. 2 fuel oil shall be used in the drying

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Cargill Fertilizer, Inc.

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**SPECIFIC CONDITIONS:**

operation. The No. 2 fuel oil shall contain no more than 0.5% sulfur.

5. Fugitive emissions from the process, conveying and storage equipment shall be controlled by sealing and/or venting all particulate and fumes from the equipment to the pollution abatement system.

6. The permittee shall measure and record the liquid flow rate and total pressure drop across each scrubber system. These records shall be maintained for 2 years and available for inspection by regulatory agency personnel on request.

7. Before the construction permit expires, the No. 5 DAP plant shall be sampled for PM/PM<sub>10</sub>, sulfur dioxide, and fluoride emissions. Test procedures shall be in accordance with EPA reference methods 1, 2, 3, 5, 6, and 13A and 13B as published in 40 CFR 60, Appendix A. The Southwest District and the EPCHC shall be notified in writing 15 days or more prior to the compliance test. The test shall be conducted at permitted production capacity or no less than 90% thereof.

8. 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).

9. 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. 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 25th day  
of November, 1991

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION



Carol M. Browner, Secretary

Best Available Control Technology (BACT) Determination  
Cargill Fertilizer, Inc.  
Hillsborough County

The applicant proposes to increase diammonium phosphate production from 55.2 tons P<sub>2</sub>O<sub>5</sub> per day to 67.2 tons P<sub>2</sub>O<sub>5</sub> per day at their No. 5 diammonium phosphate plant in Hillsborough County.

The proposed project will result in a significant increase in emissions of particulate matter (PM/PM<sub>10</sub>). The project is therefore subject to Prevention of Significant Deterioration (PSD) review in accordance with F.A.C. Rule 17-2.500(5).

The BACT review is part of the PSD review requirements in accordance with F.A.C. Rule 17-2.500(5)(c).

Date of Receipt of a BACT Application:

May 3, 1991

BACT Determination Requested by the Applicant:

The BACT determination requested by the applicant is presented below:

Control Technology:	Venturi acid scrubbing/packed section pond water scrubbing
Pollutant:	Emission Limits:
PM/PM <sub>10</sub>	0.22 lb/ton P <sub>2</sub> O <sub>5</sub> (15 lb/hr, 0.0143 gr/acf)
Visible Emissions	Not Specified
SO <sub>2</sub>	0.5% Max. sulfur content of No.2 Fuel Oil

Basis of Review:

This determination was based upon input from the applicant, EPA Region IV, the Environmental Protection Commission of Hillsborough County (EPCHC), and the Bureau of Air Regulation.

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, 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 Section 169, 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 the Department:

Control Technology	Venturi acid scrubbing/packed section pond water scrubbing
Pollutant:	Emission Limits:
PM/PM <sub>10</sub>	0.19 lb/ton P <sub>2</sub> O <sub>5</sub> (12.8 lb/hr, 0.0122 gr/acf)
Visible Emissions	10% opacity
SO <sub>2</sub>	0.5% max. sulfur content of No. 2 fuel oil

BACT Determination Rationale

The Department's BACT determination is more stringent than that proposed by the applicant and is consistent with compliance test results for the No. 5 DAP plant. The Department's proposed emission limit is also more stringent than prior BACT limits set for other diammonium phosphate plants. The proposed emission limit reflects a particulate removal efficiency of over 99%. A

review of BACT/LAER Clearinghouse indicates that the use of venturi scrubbers followed by pond water scrubbing in a packed section is representative of BACT using the top-down approach. No. 2 fuel oil sulfur content has been limited at 0.5% in prior BACT determinations, therefore, the Department is in agreement with the applicant's proposed sulfur content.

Environmental Impact Analysis

The impact analysis for the BACT determination is based on 8,760 hours/year operation. The ambient air quality impact analysis resulted in the following:

<u>Averaging Time</u>	<u>Predicted Impact (ug/m<sup>3</sup>)</u>	<u>PSD Significance Level (ug/m<sup>3</sup>)</u>
Annual PM/PM <sub>10</sub> SO <sub>2</sub>	0.22 (Net reduction due to offsets)	1.0

Conclusion

The incremental impact from PM/PM<sub>10</sub> due to the proposed modification is insignificant. 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:

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

Date

November 22 1991

Approved by:

  
Carol M. Browner, Secretary  
Dept. of Environmental Regulation

Date

November 25 1991



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 Browner  
FROM: Steve Smallwood *SS*  
DATE: November 20, 1991  
SUBJ: Approval of Construction Permit AC 29-196763  
Cargill Fertilizer, Inc.

Attached for your approval and signature is a permit and accompanying Best Available Control Technology determination prepared by the Bureau of Air Regulation for the above mentioned company to increase the production rate of the No. 5 Diammonium Phosphate Plant at Cargill's facility in Hillsborough County, Florida.

No adverse comments were received during the public notice period.

I recommend your approval and signature.

SS/JR/plm

Attachments