

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Debra Waters
Environmental Superintendent
Cargill Fertilizer, Inc.
3200 Highway 60 West
Bartow, FL 33830

2. Article Number (Copy from service label)
7099 3400 0000 1453 1644

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) **B. Date of Delivery**

K. PICKARD 10/17/00

C. Signature

X K. Pickard ☒ Agent ☐ Addressee

D. Is delivery address different from item 1? ☒ Yes ☐ No

If YES, enter delivery address below:

PO BOX 9002

33831-9002

3. Service Type

☒ Certified Mail ☐ Express Mail

☐ Registered ☐ Return Receipt for Merchandise

☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

**U.S. Postal Service
CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Ms. Debra Waters, Cargill

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here

Name (Please Print Clearly) (Do Not Complete if Mailing)

Ms. Debra Waters

Street, Apt. No. / PO Box No.

3200 Highway 60 West

City, State, Zip

Bartow, FL 33830

PS Form 3800, July 1999

See Reverse for Instructions

7099 3400 0000 1453 1644

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by


Ms. Debra Waters
Environmental Superintendent
Cargill Fertilizer, Inc.
3200 Highway 60 West
Bartow, Florida 33830 /

DEP File No. 1050046-013-AC
PSD-FL-295

Enclosed is the FINAL Permit Number PSD-FL-295 to replace the phosphoric acid filter for the No. 4 Phosphoric Acid Plant located at the above facility address in Bartow, Polk County. This permit is issued pursuant to Chapter 403, Florida Statutes and in accordance with Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000, 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.


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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10/13/00 to the person(s) listed:

Debra Waters, Cargill*
Greg Worley, EPA
John Bunyak, NPS
David Buff, P.E., Golder Assoc.
Bill Thomas, DEP SWD
Jeff Spence/Iris Hill, Polk County ESD

Clerk Stamp

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

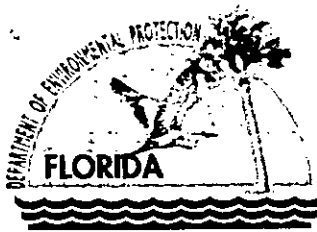
Charlotte J. Hayes 10/13/00
(Clerk) (Date)

FINAL DETERMINATION
CARGILL FERTILIZER, INC.
No. 4 Phosphoric Acid Plant Filter Modification
Permit No. 1050046-013-AC
PSD-FL-295

An Intent to Issue Air Construction Permit to Cargill Fertilizer, Inc. for the replacement modification of the No. 4 Phosphoric Acid Plant Gypsum Filter at the applicant's facility near Bartow, Polk County, Florida was distributed on September 15, 2000. The proposed permit provided for the replacement of the existing No. 4 Phosphoric Acid Plant Filter with a larger capacity filter to increase product recovery efficiency. The project and affected downstream fertilizer units were evaluated for PSD. A Best Available Control Technology determination was required only for the phosphoric acid plants.

The Public Notice of Intent to Issue Air Construction Permit was published in the Tampa Tribune's Polk Edition on September 16, 2000. Copies of the draft construction permit and related documents were available for public inspection at the Department's offices in Tallahassee and Tampa and at the Polk County Environmental Services Department in Bartow. No comments were received during the public comment period.

The final action of the Department will be to issue the permit as described above.



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE:

Cargill Fertilizer, Inc.
3200 Highway 60 West
Bartow, Florida 33830

File No.	1050046-013-AC
Permit No.	PSD-FL-295
SIC No.	2874
Project:	No. 4 Phosphoric Acid Plant Filter Replacement
Expires:	October 31, 2001

Authorized Representative:

Debra R. Waters
Environmental Superintendent

PROJECT AND LOCATION:

Permit for the replacement of the gypsum filter for the No. 4 Phosphoric Acid Plant. The project does not involve an increase the P_2O_5 feed rate for the phosphoric acid plant but will result in additional P_2O_5 recovered for processing in the downstream fertilizer plants. The project is located at the Cargill Fertilizer facility, 3200 Highway 60 West, Bartow, Polk County. UTM coordinates are Zone 17; 409.8 km E; 3086.7 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

ATTACHED APPENDICES ARE MADE A PART OF THIS PERMIT:

Appendix BD	BACT Determination
Appendix GC	Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT PSD-FL-295 (1050046-013-AC)

SECTION I – FACILITY INFORMATION

FACILITY DESCRIPTION

Cargill Fertilizer, Inc. operates a phosphate fertilizer manufacturing facility near Bartow, Polk County, Florida, producing sulfuric acid, wet-process phosphoric acid, and ammoniated phosphate fertilizers. The company has applied to replace the phosphoric acid filter at its No. 4 Phosphoric Acid Plant. As a result of this replacement, increases in the actual emissions of particulate matter (PM), PM with an aerodynamic diameter of 10 microns or less (PM₁₀), sulfur dioxide (SO₂), fluorides (F) and other pollutant emissions will occur as described in the Department's Technical Evaluation and Preliminary Determination issued September 15, 2000 and the determination of Best Available Control Technology that is attached to this permit.

REGULATORY CLASSIFICATION

The applicant's facility is classified as a "Major or Title V Source" per Rule 62-210.200, F.A.C., because the facility has the potential to emit at least 100 tons per year of a regulated air pollutant and/or 10 tons per year or more of a hazardous air pollutant.

Phosphate rock processing plants are listed as a Major Facility Category in Table 62-212.400-1, F.A.C., "Major Facility Categories." Therefore, stack and fugitive emissions of over 100 TPY of a regulated pollutant are sufficient to classify the installation as a "Major Facility" per the definitions in Rule 62-210.200, F.A.C., subject to the Significant Emission Rates given in Table 62-212.400-2, F.A.C. and the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT).

PERMIT SCHEDULE:

- 06-22-00: Original Application Received
- 07-14-00: Revised Application Received
- 08-14-00: Issued Intent to Issue Permit

RELEVANT DOCUMENTS:

The documents listed below are specifically related to this permitting action and form the basis of the permit. They are on file with the Department:

- Original Application
- Department's incompleteness letters
- Applicant's incompleteness responses
- Technical Evaluation and Preliminary Determination
- Best Available Control Technology determination (issued concurrently with permit)

AIR CONSTRUCTION PERMIT PSD-FL-295 (1050046-013-AC)

SECTION II – ADMINISTRATIVE REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department's Southwest District Office, 3804 Coconut Palm Drive, Tampa, Florida 33619-8218. All applications for permits to construct or modify an emissions unit(s) subject to the Prevention of Significant Deterioration or Nonattainment (NA) review *requirements* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blair Stone Road, MS 5505, Tallahassee, Florida 32399-2400 (phone number 850/488-0114).
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
5. Expiration: This air construction permit shall expire on October 31, 2001 [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, 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. However, the permittee shall promptly notify the Department's Southwest District Office of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
6. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Southwest District Office. [Chapter 62-213, F.A.C.]
7. Permit Approval: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40 CFR 52.21(r)(2)].
8. BACT Determination: In conjunction with extension of the 18 month periods to commence or continue construction, or extension of the permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of best available control technology for the source. [40 CFR 52.21(j)(4)]
9. Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports using DEP Form 62-210.900(4) shall be sent to the DEP's Southwest District office by March 1st of each year.
10. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.
11. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1997 version), shall be submitted to the DEP's Southwest District office.

AIR CONSTRUCTION PERMIT PSD-FL-295 (1050046-013-AC)

SECTION III - EMISSIONS UNIT(S) SPECIFIC CONDITIONS

The Specific Conditions listed in this section apply to the following emission units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
010	No. 4 and 5 Phosphoric Acid Plants

1. Unless otherwise indicated, the modification and operation of Emission Unit 010 shall be in accordance with the capacities and specifications stated in the application or in updated submittals. [Rule 62-210.300, F.A.C.]
2. The subject emissions unit shall comply with all applicable provisions of the 40 CFR 60 New Source Performance Standards for Wet-Process Phosphoric Acid Plants, Subpart T. [Rule 62-204.800 F.A.C.]
3. The processing rate of Emissions Unit 010 shall not exceed 170 tons P₂O₅ input per hour and may operate 8760 hours per year. [Rule 62-210.200, F.A.C.]
4. Total fluoride emissions from the No. 4 and 5 phosphoric acid plants shall not exceed 0.012 pounds per ton of P₂O₅ input or 2.04 pounds per hour. [Rule 62-212.400, F.A.C.]
5. Before this construction permit expires and as required by the applicable New Source Performance Standards under 40CFR60, testing for fluorides shall be conducted simultaneously on the three scrubber stacks with the emission unit operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than capacity (i.e. less than 90 percent of maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 30 consecutive days for the purposes of scheduling and conducting additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.340, F.A.C.]
6. The Department's Southwest District office shall be notified in writing at least 15 days prior to source testing. Pursuant to Rule 17-297.570(1) and (2), written reports of the test results shall be submitted to that office within 45 days of test completion. [Rule 62-297.340, F.A.C.]
7. Test procedures for total fluorides, shall be in accordance with EPA Reference Methods 1, 2, 3, and 13A or 13B, respectively, as published in 40 CFR 60, Appendix A. [Rules 62-296.800 and 62-297.401, F.A.C.]
8. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]
9. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
10. Pursuant to Rule 62-210.700, F.A.C., Excess Emissions, Emissions Unit 010 is subject to the following:
 - a Rule 62-210.700(1): Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
 - b Rule 62-210.700(4): Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

AIR CONSTRUCTION PERMIT PSD-FL-295 (1050046-013-AC)

SECTION III - EMISSIONS UNIT(S) SPECIFIC CONDITIONS

- c **Rule 62-210.700(5):** Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
 - d **Rule 62-210.700(6):** In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
11. The permittee shall submit an Annual Operating Report using DEP Form 62-210.900(4) to the Department's Southwest District office by March 1 of the following year for the previous year's operation. [Rules 62-210.370(2) (a) and (b), F.A.C.]
12. 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.]
13. An application for an operation permit shall 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. [Rules 62-4.055 and 62-4.220, F.A.C.]

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

CARGILL FERTILIZER, INC.
No. 4 Phosphoric Acid Plant Filter Replacement
PSD-FL-295 and 1050046-013-AC
Polk County

INTRODUCTION:

Cargill Fertilizer, Inc. applied to the Department on June 22, 2000 for a PSD construction permit to replace the phosphoric acid filter for the No. 4 Phosphoric Acid Plant (PAP) at its existing fertilizer manufacturing facility in Bartow, Polk County, Florida. The plant was permitted in 1995 under air construction permit AC53-262532 (PSD-FL-224) to produce a total of 170 tons per hour (TPH) of P_2O_5 by operating two existing phosphoric acid plants in tandem as a hybrid unit while adding an additional phosphoric acid filter and fluoride scrubbing capacity. In 1996 the applicant began making process changes to the plant by adding a vacuum cooler for the reactor as well as installing additional product storage capacity and an additional phosphoric acid evaporator, all of which was done while claiming there would be no increase in production or emissions.

In 1999, additional reactor capacity was added along with process changes to remove bottlenecks in the reactor cooling and product clarification sections. The plant modernization project begun in 1999 was recently completed and now the company is pursuing further modernization through the replacement of the tilting pan filter for the No. 4 phosphoric acid plant.

Cargill's earlier modifications mentioned above were done without requesting any increase in allowable production rates or allowable emissions limits for the phosphoric acid plant or the downstream processing units. Likewise, for this permit Cargill is not requesting any increase in P_2O_5 input. However the increased phosphoric acid recovery due to the filter replacement will result in an additional 140 tons per day (TPD) of P_2O_5 output that will be processed by downstream units.

Cargill has agreed to lower its proposed BACT fluoride limit from 0.0135 lb per ton P_2O_5 to the current BACT limit of 0.012 lb per ton of P_2O_5 for new phosphoric acid plants. Fluoride emissions from the phosphoric acid plant are controlled by a packed crossflow scrubber using pond water.

The main downstream units consist of fertilizer plants that make mono-ammonium and di-ammonium phosphate (MAP and DAP). The currently permitted rates of Fertilizer Plants Nos. 3 and 4, will not be exceeded by the additional phosphoric acid (140 TPD as of P_2O_5) recovered and processed as a result of the filter replacement at the upstream plant.

The two fertilizer plants were evaluated for PSD and BACT at their present (and projected) process rates in 1994 (No. 4 DAP Plant) and 1999 (No. 3 MAP/DAP Plant). The Department has determined that only the No. 4 PAP requires a BACT determination as a result of the proposed project.

APPENDIX BD

BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

As required for major facilities listed in Florida Administrative Code (F.A.C.) Chapter 62-212, Table 212.400-1, a BACT determination must be made for each pollutant exceeding the significant emission rates in Table 212.400-2, "Regulated Air Pollutants Significant Emissions Rates". Pollutants exceeding significant rates are particulate matter (PM/PM₁₀), SO₂ and fluoride (F).

BACT Determination Procedure

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (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 BACT 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 determination 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 unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically infeasible for the emission unit 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.

The air pollutant emissions from this facility can be grouped into categories based upon the control equipment and techniques that are available to control emissions from these emission units. Using this approach, the emissions can be classified as follows:

- Combustion Products (e.g., SO₂, NO_x). These are controlled generally by gaseous control devices and fuel quality.
- Products of Incomplete Combustion (e.g., CO, VOC). Control is largely achieved by proper combustion techniques.
- Emissions from materials handling, conveyance, and storage (primarily PM). These are controlled generally by fabric filters and reasonable precautions.

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

Grouping the pollutants in this manner facilitates the BACT analysis by enabling the examination of equipment available to control the type or group of pollutants emitted and the corresponding energy, economic, and environmental impacts on a common basis. Although all of the pollutants addressed in the BACT analysis may be subject to a specific emission limiting standard as a result of PSD review, the control of "non-regulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., PM, SO₂, H₂SO₄, fluorides, etc.), if a reduction in "non-regulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

BACT DETERMINATION PROPOSED BY APPLICANT:

POLLUTANT	EMISSION LIMIT	LIMIT BASIS	CONTROL TECHNOLOGY
F	2.04 lb/hr	0.012 lb/ton P ₂ O ₅ input	Packed scrubbers using pond water

BACT ANALYSIS

Fluoride-containing gases including hydrogen fluoride (HF) and silicon tetrafluoride (SiF₄) are evolved during production of phosphoric acid. These gases are evolved primarily from the reactors, filters and tanks, with the reactors accounting for the largest percentage. Fluoride contained in the phosphate rock feed is released as a result of the reaction of the rock with sulfuric acid. Fluoride emissions from the phosphoric acid plant are currently controlled by three scrubbers using pond water. A description of these scrubbers is presented in the following table:

Scrubber Manufacturer	Sources Controlled	Scrubber Type
Wellman-Lord	No. 4 Reactor/Hotwell No. 4 Filter No. 4 Filtrate Tank Nos. 1- 4 Evaporator Seal Tanks	Cross-Flow Packed Scrubber
Wellman-Lord	No. 5 Reactor/Hotwell No. 5 Filter No. 5 Filtrate Tank 30% Evaporator Feed Tank 40% Evaporator Product Tanks Lamella Settlers 40% Evaporator Feed Tank	Cross-Flow Packed Scrubber
VESCOR Replica	No. 3 Filter Gypsum Slurry Tank No. 3 Filtrate Tank	Venturi/Demister

Currently, the existing scrubber system is achieving lower fluoride emission rate than required by the existing Operation Permit (1050046-300-AV) which limits fluoride emissions from the phosphoric acid plant to 0.0135 lb/ton of P₂O₅ or 2.29 lb/hr. A summary of the results of the four most recent stack tests is presented below:

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

Summary of Fluoride Stack Test Data for the Phosphoric Acid Plants

Test Date	Production Rate (tons P ₂ O ₅ /hr)	Run No.	Total Phosphoric Acid Plant Fluoride Emission Rate	
			(lb F/ hr)	(lb F/ton P ₂ O ₅)
08/30/96	121	1	0.587	0.005
		2	0.759	0.006
		3	0.962	0.008
03/13/97	147	1	1.294	0.009
		2	1.301	0.009
		3	0.779	0.005
07/10/98	148	1	0.363	0.002
		2	0.583	0.004
		3	0.516	0.003
06/03/99	146	1	0.39	0.003
		2	0.35	0.002
		3	0.35	0.002
Average	140.5		0.686	0.005
Maximum			1.301	0.009

The existing emissions limit is based on the Department's determination in 1996 that a fluoride emission limit of 0.012 lb/ton P₂O₅ was BACT for a new phosphoric acid plant, and that BACT for a combination of new and existing equipment would be 0.0135 lb/ton P₂O₅. However, since the existing scrubber system consistently controls F emissions to levels below those determined to be BACT by the Department for new equipment, Cargill is proposing a fluoride emissions limit of 0.012 lb/ton of P₂O₅ for the entire scrubbing system.

BACT DETERMINATION BY THE DEPARTMENT:

Based on the information provided by the applicant and other information available to the Department, the BACT Determination proposed by the applicant is established as BACT for this project. The use of packed scrubbers has long been established as the physical BACT for the control of HF. The proposed limit of 0.012 lb/ton P₂O₅ represents the lowest numerical BACT value to-date. It is lower than the previous overall plant emission limit of 0.0135 lb/ton that was set for this specific plant under a previous PSD/BACT review.

The proposed BACT is lower than the limit set by EPA in its recent determination of maximum achievable control technology (MACT). For reference, the MACT set by EPA was based on the Department's earlier BACT determination for this plant.

The proposed BACT represents the Top control in a Top/Down analysis. No alternatives were considered for this project.

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

COMPLIANCE

Compliance with the fluoride limit shall be in accordance with the EPA Reference Method 13A or 13B as contained in 40 CFR 60, Appendix A.

DETAILS OF THE BACT ANALYSIS MAY BE OBTAINED BY CONTACTING:

John Reynolds, Permit Engineer

A. A. Linero, P.E. Administrator

Department of Environmental Protection

Bureau of Air Regulation

2600 Blair Stone Road, MS 5505

Tallahassee, Florida 32399-2400

Recommended By:

 P.E.

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

Date:

10/16/2000

Approved By:



Howard L. Rhodes, Director
Division of Air Resources Management

Date:

10/16/00

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.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 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.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment 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.
- G.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.
- G.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 auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.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 and 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.
- G.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.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]


- G.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 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.
- G.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.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code 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.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology (X)
 - b) Determination of Prevention of Significant Deterioration (X); and
 - c) Compliance with New Source Performance Standards (X).
- G.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 or 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:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.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.

Memorandum

Florida Department of Environmental Protection

TO: Howard Rhodes

THRU: ~~Clair Faney~~

FROM: A. A. Linero 

DATE: October ¹²13, 2000

SUBJECT: Cargill, Bartow. No. 4 Phosphoric Acid Plant
DEP File No. 1050046-013-AC (PSD-FL-295)

BAR

Attached for your approval is the Final Permit for the modification of the No. 4 Phosphoric Acid Plant (PAP) at Cargill Fertilizer in Bartow.

The project involves no increase in raw material (P_2O_5 from phosphate rock and sulfuric acid). There will be increased production (P_2O_5 in phosphoric acid) by more efficient filtering of gypsum. The additional phosphoric acid available to the mono and di-ammonium plants downstream will stimulate additional fertilizer production.

The two downstream fertilizer plants were reviewed in 1994 and 1999 for PSD and BACT in relation to applications that resulted in their present process and emission limits. We determined that PSD review was required for the No. 4 PAP and the downstream plants. We determined that BACT was required only for the No. 4 PAP.

The BACT limit of 0.012 pounds per ton of P_2O_5 applies to the emissions from the No. 4 and 5 PAPs. This is lower than the previous combined emission limit of 0.0135 lb/ton P_2O_5 set for those plants. Note that EPA relied on the 0.0135 in setting the identical MACT value for new PAPs.

October 16 is Day 43 out of 90 even on the basis that the clock restarts 14 days after receipt of proof of public notice. The original application was received on June 22. Therefore this permitting action took about 115 days including time to respond to completeness questions.

I recommend your approval and signature.

AAL/