TO:

Michael G. Cooke

THRU:

Trina Vielhauer

Al Linero 💇

**FROM** 

Syed Arif Squad Acid 2/4/04

DATE:

February 4, 2004

SUBJECT: Cargill Fertilizer, Inc. – Riverview Plant

DEP File No. 0570008-043-AC, PSD-FL-315D

Attached for approval and signature is a PSD permit modification to Cargill Fertilizer, Inc. for the Riverview Plant located in Hillsborough County. In November 2001, we approved an expansion of the Cargill Riverside Facility including the manufacture of sulfuric acid, phosphoric acid, granulated triple super phosphate, and animal feed ingredients (AFI). The expansion was reviewed under the PSD rules and BACT determinations were made for each of the emissions units constructed or modified.

Cargill has requested revisions to the permit and the BACT determination based on some changes to the stack configuration and pollution control equipment on AFI Plants Nos. 1 and 2. The key changes on AFI Plant No. 1 include installation of a new packed scrubber to control emissions from the defluorination system and maintaining an existing venturi scrubber (instead of installing a baghouse) to control emissions from the granulation and materials handling system. The key changes on AFI Plant No. 2 include construction of two new venturi scrubbers to control emissions from the granulation and materials handling system instead of one venturi scrubber and a baghouse.

Overall the controls will be as stringent as the original controls. No increase in allowable/permitted emissions are requested although emissions are reallocated based on the new stack and control equipment configurations.

The Public Notice was published on December 1, 2003 in the Tampa Tribune. The applicant had submitted a request for an extension of time in which to file a petition for an administrative hearing. A rescission of request for extension of time was later submitted by the applicant.

No comments were received.

I recommend your approval and signature.

/sa

Attachments



# Department of Environmental Protection

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

David B. Struhs Secretary

February 4, 2004

### CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. E. O. Morris, Vice President Environmental, Health & Safety Cargill Fertilizer, Inc. 8813 Highway 41 South Riverview, Florida 33569

Re: DEP File No. 0570008-043-AC; PSD-FL-315D Animal Feed Ingredient Plants Nos. 1 and No. 2

Dear Mr. Morris:

The Department received the request submitted by Golder Associates to modify the current construction permit to reflect revisions to the original stack and air pollution control equipment configurations at Animal Feed Ingredient (AFI) Plants Nos. 1 and No. 2 at the Riverview Plant. The ongoing AFI projects were approved under permit PSD-FL-315 (DEP File 0570008-036-AC) and modified under permit PSD-FL-315B (DEP File 057008-041-AC).

The following changes to the permit were requested in addition to a request that the determination of Best Available Control Technology (BACT) also be updated to reflect the changes in the project.

### AFI Plant No. 1

- Maintain a single stack for the AFI No. 1 defluorination system, granulation system, and milling, classification, and classification equipment (Cargill had previously requested installation of two new stacks).
- Use a new packed bed cross flow scrubber to control emissions from the defluorination system.
- Maintain the use of a venturi scrubber system to control emissions from the granulation system and the material handling system, which is the current plant configuration (Cargill had requested the installation of a baghouse to control emissions from the material handling system).

### AFI Plant No. 2

- Construction of two new venturi scrubbers to control emissions from the AFI Plant No. 2 granulation system and material handling system (Cargill had previously requested a venturi scrubber to control emissions from the AFI Plant No. 2 granulation system and a baghouse to control emissions from the material handling system).
- Maintain a single common stack for the AFI No. 2 granulation system and material handling system, which is the current plant configuration (Cargill had previously requested the installation of two new stacks).

The facility emits or has the potential to emit sufficient hazardous air pollutants such that a number of regulations promulgated by EPA pursuant to Section 112 of the Clean Air Act and adopted by the Department are applicable. The ones applicable to the units modified by the original permit PSD-FL-315 are included below.

The Department hereby modifies permit PSD-FL-315 as follows:

### Section I - Regulatory Classification

The Cargill Riverview <u>Facility Plant</u> is classified as a "Major or Title V Source" per Rule 62-210.200, <u>Definitions</u>, F.A.C., because it has the potential to emit at least 100 tons per year of particulate matter when potential fugitive emissions are included with potential controlled emissions.

The Cargill Riverview Facility is also classified as a "Major Source" per 40 CFR 63.2, Definitions (adopted and incorporated by reference by the Department at Paragraph 62-204.800(11)(d) because it consists of a group of stationary sources located within a contiguous area and under common control that emit or have the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

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).

### Appendix BD BACT Determination

Revisions to Appendix BD (Referenced on the cover page of the original permit) are attached and made part of this permit modification.

### Section III - Subsection A, Specific Condition 8 (New)

8. Units 073, 007, 078-081, and 055 are subject to the provisions of 40 CFR 63, Subpart AA, and Subpart BB adopted by the Department at Paragraph 62-204.800(11)(b), F.A.C.

### Section III - Subsection F, Specific Condition 6 (Revised as follows)

6. Emissions from the AFI Plants No. 1 and No. 2 shall not exceed the following [Rule 62-210.400, F.A.C.]:

		PM/PM <sub>10</sub>	Fluorides		
Emission Unit	Grains per DSCF	lb/hr	ТРҮ	lb/hr	TPY .
AFI Plant No. 1 Granulation System	N/A	<del>8</del> - <u>13</u>	<del>35</del> - <u>58</u>	N/A	N/A
Defluorination System	N/A	N/A	N/A	2.11	9.25
Milling, Classification, and Cooling Equipment Train No. 1	0.012	5	23	N/A	N/A
AFI Plant No. 2 Granulation System	N/A	<del>8</del> - <u>13</u>	<del>35</del> - <u>58</u>	N/A	N/A
Milling, Classification, and Cooling Equipment Train No. 2	0.012	5	23	N/A	N/A
DE Silo	0.012	0.053	0.23	N/A	N/A
Limestone Silo	0.012	0.32	1.40	N/A	N/A
Loadout System	0.012	2.06	9.01	N/A	N/A
Total for AFI Plants No. 1 and 2	N/A	28.72	125.78	2.1	9.25

A copy of this letter and attachments shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

Any party to this permitting decision (order) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Michael G. Cooke, Director Division of Air Resources

Management

### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification (order) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 2/7/04 to the person(s) listed:

E. O. Morris, Cargill\*
Jim Little, EPA Region IV
John Bunyak, NPS
Gerald Kissel, DEP SWD
Jerry Campbell, EPCHC
David Buff, P.E., Golder Associates, Inc.

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.

# APPENDIX BD BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Following are the modifications to the original BACT determination that accompanied Air Construction Permit PSD-FL-315 (DEP File 0570008-036-AC). The modifications (underlined or struck) below are attached to and made part of Permit PSD-FL-315D (DEP File 0570008-043-AC)

### **BACT DETERMINATION BY THE DEPARTMENT:**

### 6. AFI Plants No. 1 and 2

POLLUTANT Emission Unit	SO2/SAM  Control Technology	Control Technology	PM/PM10			Fluorides		
			Limit Basis	Emission Limit (lb/hr)	Control Technology	Limit Basis	Emission Limit (lb/hr)	Control Technology
AFI Plant No. 1 Granulation System	Good combustion practices	Good combustion practices	N/A	8- <u>13</u>	Venturi Scrubber	N/A	N/A	N/A
Defluorination System	N/A	N/A	N/A	N/A	N/A	0.5 lb/batch- hour	2.11	Venturi Scrubber and Packed Cross-flow Scrubber
Milling, Classification, and Cooling Equipment Train No. 1	N/A	N/A	0.012 grains/dscf	5	Baghouse	<del>N/A</del>	N/A	N/A
AFI Plant No. 2 Granulation System	Good combustion practices	Good combustion practices	N/A	8- <u>13</u>	Venturi Scrubber <u>s</u> (2)	N/A	N/A	N/A
Milling, Classification, and Cooling Equipment Train No2	N/A	N/A	0.012 grains/dscf	5	Baghouse	N/A	N/A	N/A
DE Silo	N/A	N/A	0.012 grains/dscf	0.053	Baghouse	N/A	N/A	N/A
Limestone Silo	N/A	N/A	0.012 grains/dscf	0.32	Baghouse	N/A	N/A	N/A
Loadout System	N/A	N/A	0.012 grains/dscf	2.06	Baghouse	N/A	N/A	N/A

The changes cited above are the result of project modifications as described below:

### AFI Plant No. 1

 Maintain a single stack for the AFI No. 1 defluorination system, granulation system, and milling, classification, and cooling equipment (Cargill had previously requested installation of two new stacks).

Cargill Fertilizer, Inc. Riverside Facility, AFI Plants 1 and 2

### APPENDIX BD

### BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

- Use a new packed bed cross flow scrubber to control emissions from the defluorination system.
- Maintain the use of a venturi scrubber system to control emissions from the granulation system and the material handling system, which is the current plant configuration (Cargill had requested the installation of a baghouse to control emissions from the material handling system).

### AFI Plant No. 2

- Construction of two new venturi scrubbers to control emissions from the AFI Plant No. 2 granulation system and material handling system (Cargill had previously requested a venturi scrubber to control emissions from the AFI Plant No. 2 granulation system and a baghouse to control emissions from the material handling system).
- Maintain a single common stack for the AFI No. 2 granulation system and material handling system, which is the current plant configuration (Cargill had previously requested the installation of two new stacks).

### FINAL DETERMINATION

## Cargill Fertilizer, Incorporated Riverview No. 5 DAP Plant DEP File No. 0570008-043-AC, PSD-FL-315D

An Intent to Issue PSD Permit Modification for Cargill Fertilizer, Inc., Riverview plant, located at 8813 U.S. Highway 41 South, Riverview, Hillsborough County, Florida, was distributed on November 21, 2003. The Public Notice of Intent to Issue PSD Permit Modification was published in the Tampa Tribune on December 1, 2003. Copies of the draft construction permit were available for public inspection at the Department offices in Tampa and Tallahassee.

A Request for an extension of the time in which to file a Petition for an Administrative Hearing was received by the Department on December 8, 2003 from the applicant. A Rescission of Request for an extension of time in which to file a Petition for an Administrative Hearing was received by the Department on January 20, 2004 from the applicant.

The Department received no comments from the public, the applicant, EPA Region 4 office or the Fish and Wildlife Service.

The final action of the Department is to issue the PSD Permit Modification as proposed.

# U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided) Postage Postage Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees Sept To U.D. Months Vice Resolute Street, Apt. No. 90 PO Box Nd. Street, Apt. No. 90 PO Box Nd. Street, Apt. No. 90 PO Box Nd. Why State, ZIP+4 William Total Postage PS Form 3800, May 2000 See Reverse for Instructions