

FINAL DETERMINATION

Cargill Fertilizer, Incorporated Riverview No. 5 DAP Plant DEP File No. 0570008-042-AC, PSD-FL-315C

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 March 23, 2004. The Public Notice of Intent to Issue PSD Permit Modification was published in the Tampa Tribune on March 28, 2004. Copies of the draft construction permit were available for public inspection at the Department offices in Tampa and Tallahassee.

The National Park Service, the U.S. Environmental Protection Agency and the public submitted no comments. Some comments on the proposed draft permit were submitted by the applicant.

A summary of the comments received and the Department's responses to those comments are provided in the following paragraphs:

Draft Permit: Subsection G, Condition 1:

The applicant has requested that the production rate limit, as well as emission limits in Condition 5, be expressed in terms of tons per day (TPD) of product and lbs per ton of product, respectively, while producing ammoniated products (MAP and DAP) as well as sulfur and nutrient rich grades product. The applicant indicated that the production limit for the plant, expressed in terms of product, is 3,758 TPD.

Department's Response:

The Department will add the production limit of 3,758 TPD of product in the permit. However, the emission limits while producing ammoniated products such as MAP and DAP will still be expressed in terms of lbs per ton of P_2O_5 input. The New Source Performance Standards as well as National Emission Standards for Hazardous Air Pollutants are based on lbs per ton of P_2O_5 input. While producing sulfur and nutrient rich grades product, the P_2O_5 content is reduced, lowering the allowable emissions in lb/hr, if it is expressed in lbs per ton of P_2O_5 input. This can make it much more difficult to meet the emission limits on an ongoing basis while producing sulfur and nutrient rich grades product. Therefore, the Department will allow emission limits for F and PM in terms of lbs per tons of product when the plant is producing sulfur and nutrient rich grades product. Specific Condition 1 will read as follows:

“The process input rate of the No. 5 Granulation Plant shall not exceed 1,764 tons per day (TPD) of 100% phosphorus pentoxide (P₂O₅). The production rate shall not exceed 3,758 TPD of product. [Rule 62-210.200, F.A.C.]”

Draft Permit: Subsection G, Condition 5:

As discussed in Condition 1, the applicant is requesting that the lbs per ton of P₂O₅ input limits be changed to lbs per ton of product. Thus the limits would become 0.070 lbs per ton of product for PM and 0.016 lbs per ton of product for F. The applicant has indicated that this will not change the maximum allowable lbs per hour or tons per year limits for the plant.

Department’s Response:

The Department as indicated in Condition 1 above will change the emission limit in terms of lbs per ton of product when the source is producing sulfur and nutrient rich grades product. When the plant is producing MAP and DAP products, the emission limits for F and PM will stay the same as indicated in the draft permit, in terms of lbs per ton of P₂O₅ input. Specific Condition 5 will read as follows:

Emissions from the No. 5 Granulation Plant shall not exceed the following while producing MAP or DAP: [Rule 62-212.400, F.A.C.]

Pollutant	Maximum Allowable Emissions		
	lb/ton P ₂ O ₅ input	lb/hr	TPY
PM/PM ₁₀	0.15	11	48.2
Fluorides	0.035	2.54	11.1

Emissions from the No. 5 Granulation Plant shall not exceed the following while producing sulfur and nutrient rich grades product:

Pollutant	Maximum Allowable Emissions		
	lb/ton Product	lb/hr	TPY
PM/PM ₁₀	0.070	11	48.2
Fluorides	0.016	2.54	11.1

Draft Permit: Subsection G, Condition 6:

The applicant has requested that the allowable visible emission (VE) limit be set at 20% opacity. Cargill will be producing different products than are now produced in

the No. 5 DAP Plant, and therefore VE may change in character, making a 10% VE limit difficult to meet at all times.

Department's Response:

The Department will allow a VE limit of 15% while the source is producing sulfur and nutrient rich grades product. The applicant will still have to meet a VE limit of 10% opacity while producing MAP and DAP. This VE limit of 10% opacity was a BACT limit which has been in the permit since 1991. Specific Condition 6 will read as follows:

“Visible emissions from the No. 5 Granulation Plant shall not exceed 10% opacity while producing MAP or DAP and 15% opacity while producing sulfur and nutrient rich grades product. **[Permit No. 0570008-014-AV and applicant request]**”

Draft Permit: Subsection G, Condition 10:

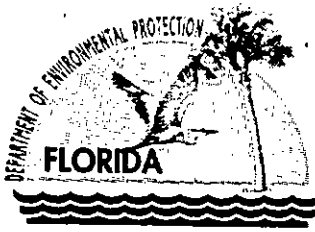
The applicant has requested clarification of this condition. Cargill will be producing a range of products in the modified plant. Some products may be produced for less than 1 month duration. Cargill proposes to test initially while producing DAP, and while producing MAP, and allow this testing to determine the need for future testing, which would be incorporated into the operating permit.

Department's Response:

The applicant will have to perform initial and annual compliance tests for each mode of operation. As indicated the plant will be producing either MAP or DAP or sulfur and nutrient rich grades product. Therefore, the testing will be required for each one of those modes of operation. The condition will be clarified in which testing will be required under three different modes of operation. Specific Condition 10 will read as follows:

“The compliance test shall be conducted under three different modes of operation. The testing shall be conducted when the plant is producing MAP, DAP and sulfur and nutrient rich grades product. The two stacks for the No. 5 Granulation Plant shall be tested simultaneously during the compliance test. **[Applicant Request]**”

The final action of the Department is to issue the PSD Permit Modification with the changes noted above.



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

May 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. 0570008-042-AC; PSD-FL-315C
No. 5 Granulation (DAP) Plant

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 No. 5 Granulation (DAP) Plant at the Riverview Facility. The ongoing DAP projects were approved under permit PSD-FL-315 (DEP File 0570008-036-AC) and modified under permit PSD-FL-315A (DEP File 0570008-039-AC). The No. 5 DAP Plant was re-designated to No. 5 Ammoniated Phosphate Plant under PSD-FL-315A.

Based on the above, the Department will modify PSD-FL-315 and PSD-FL-315A, previously issued on November 21, 2001 and February 6, 2002 respectively, as follows:

SUBSECTION A. COMMON CONDITIONS

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

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
063-068, 074, 107	Molten Sulfur Handling System
005	No. 8 Sulfuric Acid Plant
006	No. 9 Sulfuric Acid Plant
073	Phosphoric Acid Plant
007	EPP Plant
078-081, 103	AFI Plants No. 1 and 2
055	No. 5 Granulation Plant

1. Unless otherwise indicated, the modification/construction and operation of the molten sulfur handling system, the Nos. 8 and 9 Sulfuric Acid Plants, the Phosphoric Acid Plant, the EPP Plant,

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the AFI Plant Nos. 1 and 2, and the No. 5 Granulation Plant shall be in accordance with the capacities and specifications stated in the application. **[Rule 62-210.300, F.A.C.]**

SUBSECTION G. No. 5 Granulation Plant

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

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
055	No. 5 Granulation Plant

1. The process input rate of the No. 5 Granulation Plant shall not exceed 1,764 tons per day (TPD) of 100% phosphorus pentoxide (P₂O₅). The production rate shall not exceed 3,758 TPD of product. **[Rule 62-210.200, F.A.C.]**
4. The No. 5 Granulation Plant may operate up to 8,760 hours per year. **[Rule 62-210.200, F.A.C.]**
5. Emissions from the No. 5 Granulation Plant shall not exceed the following while producing MAP or DAP: **[Rule 62-212.400, F.A.C.]**

Pollutant	Maximum Allowable Emissions		
	lb/ton P ₂ O ₅ input	lb/hr	TPY
PM/PM ₁₀	0.15	11	48.2
Fluorides	0.035	2.54	11.1

Emissions from the No. 5 Granulation Plant shall not exceed the following while producing sulfur and nutrient rich grades product:

Pollutant	Maximum Allowable Emissions		
	lb/ton Product	lb/hr	TPY
PM/PM ₁₀	0.070	11	48.2
Fluorides	0.016	2.54	11.1

6. Visible emissions from the No. 5 Granulation Plant shall not exceed 10% opacity while producing MAP or DAP and 15% opacity while producing sulfur and nutrient rich grades product. **[Permit No. 0570008-014-AV and applicant request]**
10. The compliance test shall be conducted under three different modes of operation. The testing shall be conducted when the plant is producing MAP, DAP and sulfur and nutrient rich grades product. The two stacks for the No. 5 Granulation Plant shall be tested simultaneously during the compliance test. **[Applicant Request]**

12. Visible emissions from the micronutrients storage building shall not exceed 5% opacity.
[Applicant Request]

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

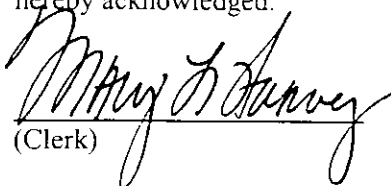
CERTIFICATE OF SERVICE

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 5/13/04 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.


(Clerk) 5/13/04 (Date)

Memorandum

Florida Department of Environmental Protection

TO: Michael G. Cooke

THRU: Trina Vielhauer *TV*
Al Linero *aj 5/6*

FROM: Syed Arif *Syed Arif 5/3*

DATE: May 3, 2004

SUBJECT: Cargill Fertilizer, Inc. – Riverview Plant
DEP File No. 0570008-042-AC, PSD-FL-315C

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, diammonium phosphate (DAP), granulated triple super phosphate, and animal feed ingredients. 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 based on some changes to the stack configuration and pollution control equipment for No. 5 DAP Plant. The key changes to the No. 5 DAP Plant includes re-designation to No. 5 Granulation Plant, installation of a new ammonia vaporizer, a new stack for the reactor and granulator exhaust gases, and a new venturi scrubber for the cooler exhaust gases. Cargill is also requesting addition of micronutrients and sulfur to the reactor/granulator to allow for production of sulfur and nutrient rich DAP grades, and expansion of the No. 5 Granulation Plant building to allow room for micronutrient unloading and storage.

Overall the controls will be as stringent as the original controls. No increase in allowable production rate is requested. The Department recently issued PSD-FL-336 to the same applicant for #6 Granulation plant. The control equipment configuration is the same as the #5 Granulation plant. The BACT limits established for the #6 Granulation plant for F and PM were 0.035 lb/ton and 0.15 lb/ton of P₂O₅ input, respectively. The applicant has agreed to the same limits for the #5 Granulation plant.

I recommend your approval and signature.

Attachments

/sa

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<p>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</p> <p>■ Print your name and address on the reverse so that we can return the card to you.</p> <p>■ Attach this card to the back of the mailpiece, or on the front if space permits.</p>	<p>A. Signature <i>[Handwritten Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p>
<p>1. Article Addressed to: Mr. E. O. Morris, Vice President Environmental, Health & Safety Cargill Fertilizer, Inc. 8813 Highway 41 South Riverview, Florida 33569</p>	<p>B. Received by (Printed Name) _____ C. Date of Delivery 5/17</p>
<p>2. Article Number (Transfer from service label) 7000 1670 0013 3109 9687</p>	<p>D. Is delivery address different from item 1? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below.</p>
<p>PS Form 3811 August 2001</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>Domestic Return Receipt</p>	<p>102595-02-M-1540</p>

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Sent To **Mr. E. O. Morris, Vice President**

Street, Apt. No., or PO Box No.
8813 Highway 41 South

City, State, ZIP+4
Riverview, Florida 33569

PS Form 3800, May 2000

See Reverse for Instructions