

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit


Mr. E. M. Newberg  
IMC-Agrico Company  
3095 Highway 640  
P.O. Box 2000  
Mulberry, Florida 33860

DEP File No. 1050059-020-AC  
Permit No. PSD-FL-241  
Polk County

Enclosed is the FINAL Permit Number PSD-FL-241 to increase production and make monoammonium phosphate (MAP) at IMC-Agrico Company's New Wales DAP Plant No. 2 located at 3095 Highway 640, Mulberry, Polk County. This permit is issued pursuant to Chapter 403, Florida Statutes and in accordance with Rules 62-212.400 and 410., F.A.C., - Prevention of Significant Deterioration and Best Available Control Technology.

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 in the Legal Office; 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

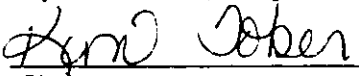
CERTIFICATE OF SERVICE

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 1-21-98 to the person(s) listed:

Mr. E. M. Newberg, IMCA\*  
Mr. Brian Beals, EPA  
Mr. John Bunyak, NPS  
Mr. Bill Thomas, DEP

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.

 1-21-98  
(Clerk) (Date)

P 265 659 284

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E M Newberg	
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IMC-AGICO	
Post Office, State, & ZIP Code	
Mulberry, FL	
Postage	\$
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TOTAL Postage & Fees	\$
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1050059-030-AC 1-21-98	
P50-FL-241	

PS Form 3800, April 1995

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**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
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Consult postmaster for fee.

3. Article Addressed to:  
 Mr. E M. Newberg  
 IMC-AGICO  
 3095 Hwy 640  
 Mulberry, FL 33560

4a. Article Number  
P265 659 284

4b. Service Type  
 Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery  
1-23-98

5. Received By: (Print Name)  
Della Jones

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)  
X

Thank you for using Return Receipt Service.

FINAL DETERMINATION

IMC-AGRICO COMPANY

Permit No. 1050059-020-AC, PSD-FL-241

New Wales DAP Plant No. 2

An Intent to Issue an air construction permit to increase the production rate from 280 to 340 tons per hour and add monoammonium phosphate (MAP) to the product slate for the DAP Plant No. 2 at IMC-Agrico Company's New Wales facility at 3095 Highway 640, Polk County, was distributed on November 24, 1997. The Notice of Intent was published in The Ledger on December 10, 1997. Copies of the draft construction permit were available for public inspection at the Department offices in Tampa and Tallahassee.

The only comments submitted were by the applicant and they are addressed below:

Specific Condition No. 3:

**It is requested that the operation rate of each train be limited based on  $P_2O_5$  input, consistent with NSPS requirements and FDEP's BACT limitations, not based on the fertilizer production rate. Accordingly, each train will be limited to a maximum operation rate of 80 tph  $P_2O_5$  input while producing either MAP or DAP.**

Response:

The application discusses operating capacity in terms of "tph DAP". Generally, operating rates for solid fertilizer products have been limited based on tons of product due to the practicality of measuring the relatively consistent solid product vs. the liquid input which requires monitoring of  $P_2O_5$  content. Nonetheless, the rates are readily convertible and can be expressed both ways such as, "The production rate of each train shall not exceed 170 tons of DAP or MAP product per hour (80 tons of  $P_2O_5$  input per hour)."

Specific Condition No. 6:

**In our opinion, the proposed particulate matter emissions limit for each train (based on just 1997 test data), is unreasonably low. Reviewing just the most recent three year PM emissions history of the plant at lower operation rates (presented in the permit application), it can be seen that the proposed PM limit is 38% less than past test results on the West train and just 12% above past test results on the East train.**

**It is requested that the proposed PM limit for each train be revised to 16 lbs/hr, based on 0.2 lb/ton  $P_2O_5$ , to accommodate fluctuations in emissions during normal operations. The revised PM emissions limit would still be less than half of FDEP's previous BACT-based PM emissions limit for this plant of 0.5 lb/ton  $P_2O_5$ . At the currently proposed level, it would be only a matter of time before IMC-Agrico would be forced to apply to FDEP for a revision of the PM limit to avoid non-compliance.**

Response:

The BACT limit procedure utilizes the most recent two-year period of data which the Department considers as most representative of normal operation at permitted rates. The applicant presented data for 1994 - 1997. The data for 1994 were not considered as representative as the data for 1996 and 1997. The 38% figure refers to an inordinately high PM result obtained in 1994 (10.4 lb/hr vs. 4.05, 2.05, and 2.67 lb/hr for 1995, 1996 and 1997, respectively). The 12% reference concerns an inordinately high result for 1994 also. The Department's BACT limit of 6.40 lb/hr is over 100% higher than the highest test result for the 1996-1997 period (2.67 lb/hr). The applicant's requested limit of 16 lb/hr is 6 times the highest test result for the representative period. It is unreasonable to presume that a scrubber system that has demonstrated a higher level of performance over the most recent two-year period during which production rates were the highest, would suddenly lose the ability to perform at the same level if operation reverted to 1994 levels. There is no basis for changing the proposed BACT limit at this time, although the applicant can request a change in the future if reasonable grounds exist for doing so.

Specific Condition No. 15:

**We request that EPA Method 7E be included in the list of acceptable compliance test methods for nitrogen oxides emissions.**

Response:

The proposed permit contained no change in the current NO<sub>x</sub> limits or the current NO<sub>x</sub> test method. However, the final permit has been modified to include Method 7E.

The final action of the Department is to issue the permit as modified.



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

## PERMITTEE:

IMC Agrico Company  
3095 Highway 640  
Mulberry, Florida 33860

File No.	1050059-020-AC
Permit No.	PSD-FL-241
SIC No.	2874
Project:	DAP Plant No. 2
Expires:	December 31, 1998

## Authorized Representative:

E. M. Newberg  
Vice President and General Manager  
Concentrated Phosphate Operations - Florida

## PROJECT AND LOCATION:

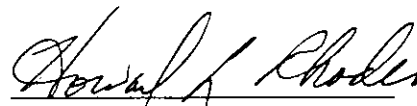
Permit for the construction /modification of the DAP Plant No. 2 to increase production and hours of operation as well as to produce monoammonium phosphate at the IMC-Agrico (New Wales ) facility, 3095 Highway 640, Mulberry, Polk County. UTM coordinates are Zone 17; 396.6 km E; 3078.9 km N.

## 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
Appendix CSC	Emission Unit(s) Common Specific Conditions

  
Howard L. Rhodes, Director  
Division of Air Resources  
Management

# AIR CONSTRUCTION PERMIT 1050059-020-AC AND PSD-FL-241

## SECTION I. FACILITY INFORMATION

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### SUBSECTION A. FACILITY DESCRIPTION

The IMC-Agrico DAP Plant No. 2 presently consists of two separate process units designated as East and West trains, respectively, each with a presently permitted capacity of 140 tons of product per hour. This permit allows an increase in the permitted capacity of each train to 170 tons of product per hour (80 tons of P<sub>2</sub>O<sub>5</sub> input per hour) for a total combined capacity of 340 tons of product per hour (160 tons of P<sub>2</sub>O<sub>5</sub> input per hour). This permit also allows the production of Monoammonium Phosphate (MAP) in the same quantities as an alternative product to DAP and increases the allowable operating hours for both trains from 7920 to 8760 per year.

### SUBSECTION B. REGULATORY CLASSIFICATION

The DAP Plant No. 2 is classified as a major source of air pollution or Title V source because it has the potential to emit at least 100 tons per year of particulate matter, nitrogen oxides and sulfur dioxide.

### SUBSECTION C. PERMIT SCHEDULE:

- 07-14-97: Date of Receipt of Application
- 08-27-97: Application deemed complete
- 11-24-97: Intent issued

### SUBSECTION D. RELEVANT DOCUMENTS:

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

- Application received 07-14-97
- Department's incompleteness letter dated 08-07-97
- Applicant's letters dated 08-22-97, 10-21-97, 12-18-97
- Fish and Wildlife Service letter dated 08-06-97
- Technical Evaluation and Preliminary Determination dated 11-24-97
- Best Available Control Technology determination (issued concurrently with permit)

# AIR CONSTRUCTION PERMIT 1050059-020-AC AND PSD-FL-241

## SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

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### SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department of Environmental Protection, Southwest District Office located at 3804 Coconut Palm Drive, Tampa, Florida 33619-8218, and phone number (813)744-6100. All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration (PSD)* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-1344.
- A.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.]
- A.3 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.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.]
- A.5 Expiration: This air construction permit shall expire on December 31, 1998. [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 permitting authority 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.]
- A.6 Applicable Regulations: The facility is subject to the following regulations: Florida Administrative Code Chapters 62-4; 62-103; 62-204; 62-210; 62-212, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

AIR CONSTRUCTION PERMIT 1050059-020-AC AND PSD-FL-241

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

**SUBSECTION A. COMMON CONDITIONS: 40 CFR NEW SOURCE PERFORMANCE STANDARDS  
EMISSION UNITS**

This permit addresses the following emission units.

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
045	DAP Plant No. 2 - East Train
046	DAP Plant No. 2 - West Train
047	DAP Plant No. 2 - West Product Cooler
056	DAP Plant No. 2 - East Product Cooler

These emission units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A, adopted by reference in Rule 62-204.800(7), F.A.C.

- A.1 [40 CFR 60.7, Notification and record keeping]
- A.2 [40 CFR 60.8, Performance tests]
- A.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- A.4 [40 CFR 60.12, Circumvention]
- A.5 [40 CFR 60.13, Monitoring requirements]
- A.6 [40 CFR 60.19, General notification and reporting requirements]

The DAP Plant No. 2 is subject to the applicable requirements of the New Source Performance Standards (NSPS) adopted by reference in Rules 62-204.800, F.A.C., including:

40 CFR 60 Subpart V, Standards of Performance for Diammonium Phosphate Plants (DAP).



AIR CONSTRUCTION PERMIT 1050059-020-AC AND PSD-FL-241

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

**SUBSECTION B. SPECIFIC CONDITIONS :**

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

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
045	DAP Plant No. 2 - East Train
046	DAP Plant No. 2 - West Train
047	DAP Plant No. 2 - West Product Cooler
048	DAP Plant No. 2 - East Product Cooler

1. Unless otherwise indicated, the construction and operation of the subject Diammonium Phosphate No. 2 production facility shall be in accordance with the capacities and specifications stated in the application. [Rule 62-210.300, F.A.C.]
2. The subject emissions units shall comply with all applicable provisions of the 40 CFR 60 New Source performance Standards for Diammonium Phosphate Plants, Subpart V. [Rule 62-204.800 F.A.C.]
3. The production rate of each train shall not exceed 170 tons of DAP or MAP product per hour (80 tons of P<sub>2</sub>O<sub>5</sub> input per hour). [Rule 62-210.200, F.A.C.]
4. The subject emission units are allowed to operate continuously (8760 hours/year). [Rule 62-210.200, F.A.C.]
5. Total fluoride emissions from each train of the DAP Plant No. 2 shall not exceed 3.34 lb/hr and 14.6 TPY based on 0.0417 lb F/ton of P<sub>2</sub>O<sub>5</sub> input. [Rule 62-212.410, F.A.C.]
6. Particulate matter emissions from the reactor/granulator/dryer stack for each train shall not exceed 6.40 lb/hr and 28.0 TPY based on 0.08 lb/ton P<sub>2</sub>O<sub>5</sub> input. [Rule 62-212.410, F.A.C.]
7. Particulate matter emissions from the East Train cooler stack shall not exceed 6.06 lb/hr and 26.5 TPY based on 0.011 gr/scf and 64,300 scfm. [Rule 62-212.410, F.A.C.]
8. Particulate matter emissions from the West Train cooler stack shall not exceed 4.22 lb/hr and 8.5 TPY based on 0.010 gr/scf and 49,200 scfm. [Rule 62-212.410, F.A.C.]
9. Visible emissions from the West Train cooler stack shall not exceed 5% opacity. Visible emissions from all scrubber stacks shall not exceed 15% opacity. [Rule 62-212.410, F.A.C.]
10. During periods of firing natural gas only, sulfur dioxide emissions from the reactor/granulator/dryer stack of each train shall be presumed not to exceed the current limit of 22.0 lb/hr and 87.0 TPY and a sulfur dioxide compliance test shall be waived. During periods of firing No. 6 fuel oil with a maximum sulfur content of 2.5% sulfur by weight, in lieu of a limit and compliance test, the firing rate shall not exceed the current limit of 36 million BTU per hour and 2.1 million gallons per year. The permittee shall maintain records of the fuel oil supplier's sulfur content analysis. [Rule 62-210.200(227), F.A.C.]

# AIR CONSTRUCTION PERMIT 1050059-020-AC AND PSD-FL-241

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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11. Nitrogen oxides emissions from the reactor/granulator/dryer stack of each train shall not exceed the current limit of 12.6 lb/hr and 55.2 TPY. [Rule 62-210.200(227), F.A.C.]
12. All venturi scrubbers for each train shall be operated at a minimum pressure drop of 15 inches w.c. The permittee shall install, calibrate, operate and maintain monitoring devices that continuously measure and record the total pressure drop across each scrubbing system. Accuracy of the monitoring devices shall be  $\pm 5\%$  over the operating range. [Rules 62-297.310, 62-296.800, F.A.C.; 40 CFR 60.223(c)]
13. Before this construction permit expires, the subject emission units shall be tested for compliance with the above emission limits. For the duration of all tests the emission units shall be 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 permitted capacity (i.e., 90% of the 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 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. [Rule 62-297.310, F.A.C.]
14. The Department's Southwest District office in Tampa shall be notified in writing at least 15 days prior to the compliance tests. Written reports of the test results shall be submitted to that office within 45 days of test completion. [Rule 62-297.310, F.A.C.]
15. The compliance test procedures shall be in accordance with EPA Reference Methods 1, 2, 3, 4, 5, 7E, 9 and 13A or 13B, as appropriate, as published in 40 CFR 60, Appendix A. 60, Appendix A. The baghouse may be tested for visible emissions in lieu of a Method 5 test. [Rules 62-204.800 and 62-297.310(7)(c), F.A.C.]
16. All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. [Rule 62-41070(3), F.A.C.]
17. The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The monitoring device shall have an accuracy of  $\pm 5$  percent over its operating range. The permittee shall maintain a daily record of equivalent  $P_2O_5$  feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using the flow monitoring device meeting the requirements of 40 CFR 60.223(a) and then by proceeding according to 40 CFR 60.224(b)(3). [Rule 62-296.800, F.A.C.; 40 CFR 60.223(b)]
18. 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, F.A.C.]

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

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19. 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.]
20. The subject emissions units shall be subject to the following:
- 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. [Rule 62-210.700, F.A.C.]
  - 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. [Rule 62-210.700, F.A.C.]
  - 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. [Rule 62-210.700, F.A.C.]
  - 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. [Rule 62-210.700, F.A.C.]
21. 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. [Rule 62-210.370, F.A.C.]

**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

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**Diammonium Phosphate Plant No. 2**  
**IMC-Agrico Company (New Wales)**  
**PSD-FL-241 / 1050059-020-AC**  
**Mulberry, Polk County**

The IMC-Agrico Company proposes to increase production from 280 to 340 tons per hour at its existing Diammonium Phosphate (DAP) No. 2 Plant in Mulberry, Polk County. The proposed modification will result in a significant increase in emissions of particulate matter (PM/PM<sub>10</sub>) and fluorides (F). The project is, therefore, subject to Prevention of Significant Deterioration (PSD) review in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). A Best Available Control Technology (BACT) determination is part of the review required by Rules 62-212.400 and 62-296, F.A.C.

The DAP No. 2 plant reacts phosphoric acid with ammonia and produces granular DAP in two essentially identical but separate "trains" (East and West) while generating emissions as indicated below:

Pollutant	PSD Level <sup>1</sup>	Actual Emissions <sup>2</sup>	Current Allowables	Proposed Emissions <sup>3</sup>	Net Change <sup>4</sup>	Subject to PSD Review?
F (East)	3	2.5	15.2	21.0	18.5	Yes
F (West)	3	4.8	15.2	21.0	16.2	Yes
PM (East)	25/15 <sup>5</sup>	9.4	80.5	89.0	79.6	Yes
PM (West)	25/15 <sup>5</sup>	12.2	73.8	81.5	69.3	Yes
NO <sub>x</sub> (both)	40	28.9	110.4	68.2	39.3	No
SO <sub>2</sub> (both)	40	80.2	174.0	119.2	39.0	No
CO(both)	100	2.6	N/A	11.0	8.4	No
VOC(both)	40	0.2	N/A	1.0	0.8	No
VE	N/A	NR <sup>6</sup>	20%	20%	-	No

<sup>1</sup> Tons per year (Rule 212.400, F.A.C.)

<sup>2</sup> Based on two-year average using 1995 and 1996 compliance data for F and PM/PM<sub>10</sub>; 1994 and 1995 for SO<sub>2</sub> and NO<sub>x</sub> (1996) data not reported. CO and VOC emissions based on AP-42 factors for boilers.

<sup>3</sup> Proposed by applicant as allowable emissions at the new production rate.

<sup>4</sup> Applicant's proposed emissions minus actuals.

<sup>5</sup> PM/PM<sub>10</sub>

<sup>6</sup> Not Reported

**DATE OF RECEIPT OF COMPLETE BACT APPLICATION:**

August 27, 1997

**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

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**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:

- 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.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- 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 unfeasible 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 indicated below:

- *Fluorides* (HF, SiF<sub>4</sub>). Controlled generally by scrubbing with pond water.
- *Particulate Matter* (PM, PM<sub>10</sub>). Controlled generally by wet scrubbing or filtration.
- *Combustion Products* (SO<sub>2</sub>, NO<sub>x</sub>, PM). Controlled generally by good combustion of clean fuels.

**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

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- *Products of Incomplete Combustion* (CO, VOC). Controlled generally by proper combustion.

Grouping the pollutants in this manner facilitates the BACT analysis because it enables the equipment available to control the type or group of pollutants emitted and the corresponding energy, economic, and environmental impacts to be examined 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, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, 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 AND NON-BACT LIMITS PROPOSED BY APPLICANT:**

POLLUTANT	EMISSION LIMIT	LIMIT BASIS	CONTROL TECHNOLOGY
F	4.8 lb/hr (each train)	0.06 lb/ton P <sub>2</sub> O <sub>5</sub> input	Two-stage scrubbers using acid/pond water
PM	20.3 lb/hr (East)	0.25 lb/ton P <sub>2</sub> O <sub>5</sub> input	Two-stage scrubbers using acid/pond water
PM	18.6 lb/hr (West)	0.25 lb/ton   0.01 gr/scf	Two-stage scrubbers and cooler baghouse
SO <sub>2</sub>	22.0 lb/hr (each train)	0.28 lb/ton P <sub>2</sub> O <sub>5</sub> input	Limit on fuel used and sulfur content
NO <sub>x</sub>	12.6 lb/hr (each train)	0.16 lb/ton P <sub>2</sub> O <sub>5</sub> input	Efficient combustion
VE	20% opacity (each train)	Rule 62-296.320, F.A.C.	Same as PM

**BACT POLLUTANT ANALYSIS**

**GASEOUS FLUORIDES (F)**

Fluoride-containing gases including hydrogen fluoride (HF) and silicon tetrafluoride (SiF<sub>4</sub>) are evolved during the exothermic reaction between ammonia and phosphoric acid that occurs in the reactor and to a lesser extent in the granulator. Since the vent gases from the reactor and granulator contain ammonia in high concentrations, the first scrubbing stage uses a phosphoric acid stream as the scrubbing medium for recovery of ammonia so that it is recycled back to the process. A final stage of pond water scrubbing removes most of the fluoride evolved from the process as well as that which is stripped out of the phosphoric acid in the first stage scrubber.

Additional fluoride and ammonia emissions are generated in the dryer and are controlled by a separate two-stage scrubbing system as for the reactor and granulator. Gaseous fluoride and ammonia emissions from the cooler are relatively low and therefore do not require special controls. The applicant has proposed that the existing emission control equipment be considered as BACT.

**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

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**PARTICULATE MATTER (PM/PM<sub>10</sub>) AND VISIBLE EMISSIONS (VE)**

The sources of PM and VE, consisting primarily of DAP dust along with relatively small amounts of ammonium fluoride and other related compounds, are the granulator, dryer, cooler, screens and mills. These emissions are controlled by cyclones which remove most of the larger particles with the remainder controlled by wet scrubbers. The applicant has proposed that the existing control equipment be considered as BACT.

**BACT DETERMINATION BY THE DEPARTMENT:**

Based on the information provided by the applicant and other information available to the Department, the following emission limits are established employing the top-down BACT approach.

<b>POLLUTANT</b>	<b>EMISSION LIMIT</b>	<b>LIMIT BASIS</b>
F	3.34 lb/hr (each train)	0.0417 lb/ton P <sub>2</sub> O <sub>5</sub> input (includes cooler emissions)
PM/PM <sub>10</sub> (RG/D)	6.40 lb/hr (each train)	0.08 lb/ton P <sub>2</sub> O <sub>5</sub> input (1997 stack tests)
PM/PM <sub>10</sub> (E Clr)	6.06 lb/hr	0.011 gr/scf (current scrubber limit basis)
PM/PM <sub>10</sub> (W Clr)	4.22 lb/hr	0.010 gr/scf (current baghouse limit basis)
VE (W Clr)	5% opacity	current baghouse limit
VE	15% opacity (all except baghouse)	1997 stack tests

**FLUORIDES**

The top-down BACT determination for fluorides identified the control technologies listed below starting with the most stringent:

1. Packed scrubber using once-through fresh water.
2. Packed scrubber using neutralized water from a dedicated pond (fresh water makeup).
3. Packed scrubber using process cooling pond water.

Use of once-through fresh water would achieve the highest level of fluoride removal but this option is not practical for operations where water conservation is required and plant water balance problems would be created.

Option 2 is possible, the main considerations being the cost of installing the pond and equipment and the cost of operating a lime treatment unit. Lime treatment to a pH level of 3.5 to 4.0 causes fluorides to precipitate out of solution, primarily as calcium fluoride. At this point the water would contain as low as 30-60 ppm fluoride. With second-stage lime treatment to a pH of 6.0 or more, the calcium compounds (mainly dicalcium phosphate) precipitate out along with additional calcium fluoride. Upon settling at a pH in the range of 6.5 to 8.8, the fluoride content of the clear neutralized water may be as low as 15 ppm, depending on the quality of the neutralization facility and the mixing efficiency.

**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

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Costs for Option 2 are based on some of the data submitted by the applicant but primarily on information from other sources. These include Phosphates and Phosphoric Acid, by Pierre Becker, 2nd ed., 1989, and Development Document for Interim Final Effluent Limitations Guidelines and Proposed New Source Performance Standards, USEPA, 1975:

Scrubber Pond with Liner (5 acres - spray cooling)	\$ 185,000
Tanks, Pumps and Equipment	520,000
Other Costs	<u>95,000</u>
Total Installed Cost (T.I.C.)	\$ 800,000
Raw Materials	\$ 19,000
Solid Waste Disposal	25,000
Operation & Maintenance (@ 8.4% of T.I.C.)	67,200
Depreciation & Financial Charges (@ 16.9% of T.I.C.)	<u>135,200</u>
Annual Cost	\$ 246,400

Assuming that treatment of the scrubber water will result in a decrease in fluoride concentration from 12,000 ppm to below 50 ppm, the driving force for absorption will increase by an additional 1.5 to 2.5 mass transfer units (NTU) which should result in an additional 2.0 lb/hr of fluoride removed for each train. This results in the following cost effectiveness for the two trains:

$$\begin{aligned} \text{F Removed} &= (2)(2)(8760)/2000 = 17.5 \text{ tons/yr} \\ \text{Cost Effectiveness} &= \$246,400/17.5 = \$14,080/\text{ton} \end{aligned}$$

This figure is sufficiently high to rule out Option 2. However, it should be noted that the low magnitude of fluoride emissions relative to their potential environmental impact justifies the consideration of higher fluoride cost effectiveness figures relative to the high tonnage pollutants such as sulfur dioxide and nitrogen oxides. Option 3, therefore, is determined by the top-down approach as the basis for the fluoride BACT emission limit. The BACT limit will be the same as determined for the IMC-Agrico Nichols Plant (0.0417 lb F/ton P<sub>2</sub>O<sub>5</sub> input).

**PARTICULATE MATTER (PM/PM<sub>10</sub>) AND VISIBLE EMISSIONS (VE)**

The top-down approach for control of PM/PM<sub>10</sub> and VE identified the following BACT options:

1. High-energy (>30 in.w.c.) venturi scrubber or ionizing wet scrubber.
2. Medium-energy (15-30 in.w.c.) venturi scrubber.



**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

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Characteristic of this process is that the first stage of scrubbing (acid scrubber) is primarily for ammonia recovery while the primary function of the second stage scrubber is fluoride removal, leaving PM/PM10 control with a secondary priority from a design standpoint. Since recovery of ammonia takes place by chemical reaction with the acid scrubbing medium, the required removal can be effected using a medium energy scrubber which also removes up to 85% of the product dust escaping the cyclones. The tail gas scrubber is a low pressure drop device that removes fluorides by absorption. For these reasons, employment of a high energy, high efficiency device for PM/PM10 removal has not been a design consideration for these plants.

If maximum PM/PM10 removal is considered to be a design parameter, the cost effectiveness of adding high energy scrubbing to the existing system (Option 1) would likely be in the range of \$50,000 - \$75,000 per incremental ton of PM/PM10 removed based on recent analyses for other projects. On a non-incremental basis, however, assuming replacement of the existing acid scrubbers with high energy ones, the cost effectiveness would drop to about \$7,000 to \$9,000 per ton for PM/PM10 removal in the 98+% efficiency range. Due to the high costs of installing new ducts, pumps, fans, and instrumentation for retrofitting an existing system, and the high energy costs, Option 1 is not feasible for this project.

Option 2 is the feasible choice, and since the existing venturi scrubbers are capable of being operated in the medium energy range, the BACT requirement will be satisfied by specifying their normal operation at a minimum pressure drop of 15 in. w.c. Analysis of recent test data for these scrubbers confirms that there is an inordinate safety margin between actual and allowable PM emissions, actuals being less than 20 percent of the allowables. Therefore, it is appropriate to reduce the allowables to a level consistent with typical margins for BACT limits. A margin of 100% above the highest representative data point from the 1997 stack tests ( $0.04 \times 2 = 0.08$  lb/ton P<sub>2</sub>O<sub>5</sub>) appears reasonable for the reactor/granulators and dryers. The existing emission limit bases (gr/SCF) for the coolers are sufficient for this BACT determination.

## 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.

Compliance with the PM/PM10 limit shall be in accordance with the EPA Reference Method 5 as contained in 40 CFR 60, Appendix A.

Compliance with the visible emission limit shall be in accordance with the EPA Reference Method 9 as contained in 40 CFR 60, Appendix A.

**APPENDIX BD**  
**BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)**

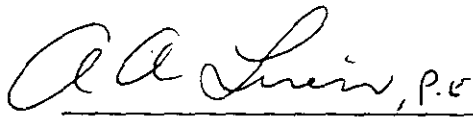
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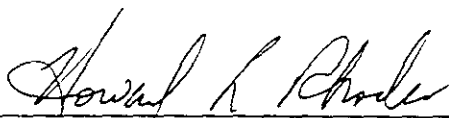
**DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:**

John Reynolds, Permit Engineer  
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended By:

Approved By:

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

  
Howard L. Rhodes, Director  
Division of Air Resources Management

1/20/98  
Date:

1/20/98  
Date:

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

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- 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 and 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 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.

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

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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.

- 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.

**APPENDIX CSC**  
EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

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**SUBSECTION 1.0 CONSTRUCTION REQUIREMENTS**

1.1 Applicable Regulations: Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-210, 62-212, 62-213, 62-296, 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Part 60, adopted by reference in the Florida Administrative Code regulation [Rule 62-204.800, F.A.C.]. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

**SUBSECTION 2.0 EMISSION LIMITING STANDARDS**

2.1 General Particulate Emission Limiting Standards. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). [Rule 62-296-320(4)(b)1, F.A.C.]

2.2 Unconfined Emissions of Particulate Matter [Rule 62-296.320(4)(c), F.A.C.]

- (a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions include the following:
  - Paving and maintenance of roads, parking areas and yards.
  - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
  - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
  - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
  - Landscaping or planting of vegetation.
  - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.

**APPENDIX CSC**  
EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

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- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

*NOTE: Facilities that cause frequent, valid complaints may be required by the Permitting Authority to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.*

2.3 General Pollutant Emission Limiting Standards: [Rule 62-296.320, F.A.C.]

- (a) The owner or operator shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

*NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [F.A.C. 62-210.200(198)]*

**SUBSECTION 3.0            OPERATION AND MAINTENANCE**

3.1 Changes/Modifications: The owner or operator shall submit to the Permitting Authority(s), for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. *Routine maintenance of equipment will not constitute a modification of this permit.* [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]

3.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Permitting Authority as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

## APPENDIX CSC

### EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

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- 3.3 Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]
- 3.4 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]
- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units 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 Permitting Authority office for longer duration. [Rule 62-210.700(1), F.A.C.]
  - (b) Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
  - (c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify Permitting Authority within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]
- 3.5 Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

#### SUBSECTION 4.0 MONITORING OF OPERATIONS

##### 4.1 Determination of Process Variables

- (a) The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

## APPENDIX CSC

### EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

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#### SUBSECTION 5.0 TEST REQUIREMENTS

- 5.1 Test Performance: Within 60 days after achieving the maximum production rate at which these emission units will be operated, but not later than 180 days after initial startup and annually thereafter, the owner or operator of this facility shall conduct performance test(s) pursuant to 40 CFR 60.8, Subpart A, General Provisions and 40 CFR 60, Appendix A. No other test method shall be used unless approval from the Department has been received in writing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emission unit(s) operating at permitted capacity pursuant to Rule 62-297.310(2), F.A.C. [Rules 62-294.800, 62-297.310, 62-297.400, 62-297.401, F.A.C.]
- 5.2 Test Procedures shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. [Rule 62-297.310, F.A.C.]
- 5.3 Test Notification: The owner or operator shall notify the Permitting Authority in writing at least *(30 days)* (initial) and *15 days* (annual) prior to each scheduled compliance test to allow witnessing. The notification shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The (30) or (15) day notification requirement may be waived at the discretion of the Department. Likewise, if circumstances prevent testing during the test window specified for the emission unit, the owner or operator may request an alternate test date before the expiration of this window. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- 5.4 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Permitting Authority. [Rule 62-297.310(7)(b), F.A.C.]
- 5.5 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C..
- 5.6 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.
- 5.7 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is



## APPENDIX CSC

### EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

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conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2) and (3), F.A.C.]

#### SUBSECTION 6.0 REPORTS AND RECORDS

- 6.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [Rule 62-4.160(14)(b), F.A.C.]
- 6.2 Emission Compliance Stack Test Reports:
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Permitting Authority as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]
  - b) The *test report* shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in **Rule 62-297.310(8), F.A.C.**
- 6.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Permitting Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
- 6.4 Annual Operating Report for Air Pollutant Emitting Facility: Before March 1st of each year, the owner or operator shall submit to the Permitting Authority this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. [Rule 62-210.370(3), F.A.C.]

#### SUBSECTION 7.0 OTHER REQUIREMENTS

- 7.1 Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not preclude the permittee from securing any other types of required permits, licenses, or certifications.

# Memorandum

# Florida Department of Environmental Protection

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TO: Howard L. Rhodes

THRU: Clair Fancy *copy for CHF*  
Al Linero *Al Linero 1/14*

FROM: John Reynolds *JR*

DATE: January 14, 1997

SUBJECT: Final Permit Approval  
IMC-Agrico Company/ New Wales DAP Plant No. 2  
1050059-020-AC (PSD-FL-241)

*KIM*

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Attached is the Final Determination and Permit for increasing the production rate at the above referenced diammonium phosphate (DAP) plant facility and adding monoammonium phosphate (MAP) to the product slate.

The only pollutants that underwent PSD review were PM/PM10 and Fluorides. The BACT determination concluded that the existing control equipment meets BACT requirements except that a permit condition was added requiring that the scrubbers be operated above a minimum pressure drop to ensure compliance. The BACT limit for PM/PM10 was reduced substantially below the prior limit because recent test data submitted by the applicant showed that actuals are less than 20% of the allowables. We nevertheless set the limit comfortably above the values from the recent tests, yet reflective of BACT. The company would have preferred even higher limits based on some inordinately high test results from the early 90's.

I recommend your approval and signature.

HLR/jr

Attachments