Friday, Barbara

To: Waters, Jason; Scott_mccann@golder.com; Phil.Steadham@mosaicco.com

Cc: Bull, Robert

Subject: PROPOSED Title V Permit Renewal No.: 1050046-018-AV - Mosaic Fertilizer, L.L.C. - Bartow Facility

Attachments: 1050046.018.AV.P[1].zip

Attached for your records is a zip file for the subject PROPOSED Title V Permit Renewal.

If I may be of further assistance, please feel free to contact me.

Barbara J. Friday
Planner II
Bureau of Air Regulation
(850)921-9524
Barbara.Friday@dep.state.fl.us

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

August 2, 2005

Carey G. MacConnell
Facility Manager
Mosaic Fertilizer, L.L.C.
3200 Highway 60 West
Bartow, FL 33830

Re: Title V Air Operation Permit Renewal
PROPOSED Permit Project No.: 1050046-018-AV
Bartow Facility

Dear Ms. MacConnell:

One copy of the "PROPOSED Determination" for the renewal of a Title V Air Operation Permit for the Bartow Facility located at 3200 Highway 60 West in Polk County, is enclosed. This letter is only a courtesy to inform you that the DRAFT Permit has become a PROPOSED Permit.

An electronic version of this determination has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:

"http://www.dep.state.fl.us/air/eproducts/ards/default.asp"

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED Permit is made by the USEPA within 45 days, the PROPOSED Permit will become a FINAL Permit no later than 55 days after the date on which the PROPOSED Permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED Permit, the FINAL Permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Bobby Bull at 850/921-9585.

Sincerely,

Trina Vielhauer
Chief, Bureau of Air Regulation

TV/rlb

Enclosures

copy furnished to:
Scott McCann, P.E., Golder Associates, Inc.
Phil Steadham, Environmental Supervisor, Mosaic Fertilizer, LLC
Jason Waters, DEP- SWD
U.S. EPA, Region 4
Barbara Friday, BAR [barbara.friday@dep.state.fl.us] (for posting with Region 4 , U.S. EPA)

PROPOSED Determination

Title V Air Operation Permit Renewal
PROPOSED Permit Project No.: 1050046-018-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" to Mosaic Fertilizer, LLC for the Bartow Facility located at 3200 Highway 60 West in, Bartow, Polk County was clerked on June 9, 2005. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was published in The Ledger on June 23, 2005. The DRAFT Permit was available for public inspection at the Southwest District Office in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was received on July 5, 2005.

II. Public Comments.

Comments were received and the DRAFT Permit was not changed. The comments were not considered significant enough to reissue the DRAFT Permit and require another Public Notice. Comments were received from one respondent during the 30 (thirty) day public comment period. Listed below is each comment letter in the chronological order of receipt and a response to each comment in the order that the comment was received. The comment(s) will not be restated. Where duplicative comments exist, the original response is referenced.

A. Letter from Mr. Phil Steadham dated June 15, 2005, and received on June 18, 2005.

1. Comment: A.2. Methods of Operation – (i.e. Fuels)
We understand that when the open construction permit (Permit 1050046-015-AC) for Diammonium Phosphate Fertilizer Plant (DAP #4) is finalized, the language in the condition referenced above will be amended to reflect language in the subject construction permit regarding fuel use.

Response: Upon receipt of the Title V revision application and Department review, the Department will incorporate the appropriate conditions of air construction permit 1050046-015-AC into the Title V permit.

2. Comment: A.4. The permitting note contained in this condition referencing fluoride emissions will also will be amended or deleted when the DAP #4 Plant is incorporated into this Title V permit.

Response: Upon receipt of the Title V revision application and Department review, the Department will incorporate the appropriate conditions of air construction permit 1050046-015-AC into the Title V permit.

B. Document(s) on file with the permitting authority:
-Letter received June 18, 2005, from Mr. Phil Steadham.

III. Conclusion.

The permitting authority hereby issues the PROPOSED Permit, with any changes noted above.

STATEMENT OF BASIS

Mosaic Fertilizer, LLC
Bartow Facility
Facility ID No.: 1050046
Polk County

Title V Air Operation Permit Renewal
PROPOSED Permit Project No.: 1050046-018-AV

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The subject of this permit is the renewal of Title V Air Operation Permit 1050046-003-AV and the incorporation of construction permit, No.1050046-008 -AC, issued on April 21, 1999, the incorporation of construction permit 1050046-017-AC, issued on February 12, 2003, the incorporation of construction permit 1050046-022-AC, the incorporation of the collocated Mosaic Mulberry permit, No. 1050048-001-AV, and the incorporation of the Department approved Alternative Monitoring Plan for scrubbers at the Bartow Facility.

The Mulberry facility was acquired from Mulberry Phosphates, Inc. in August, 2002. The Bartow and Mulberry facilities are contiguous properties, and will be permitted under the same Title V operation permit. The Bartow facility consists of one phosphoric acid plant (two trains), one diammonium phosphate/ monoammonium phosphate (MAP/DAP) plant, one DAP fertilizer plant, three sulfuric acid plants, two fertilizer shipping plants, one boiler, and one molten sulfur storage and handling system. The Mulberry facility consists of one sulfuric acid plant, one boiler, and one molten sulfur storage and handling system. The regulated Mulberry emissions units (EU) will be designated as EU Nos. 054 to EU 060.

The Ammonium/Diammonium Phosphate Plant (No. 3) has a design capacity of 3000 tons per day of MAP/DAP. The process consists of a dryer, a cooler, a reactor/granulator and screen vents. The No. 4 Fertilizer Shipping Plant includes material conveyors, transfer points, and one (1) truck and two (2) rail car shipping bins and loadout spouts. All material transfer points are located inside the material handling building and are covered and evacuated to minimize fugitive emissions. The truck and rail car loading operations are beneath the building and enclosed on two sides. Loading is done via a chute feeder which is also controlled by dust suppressant. The No. 3 Fertilizer Shipping Plant has a maximum permitted MAP/DAP product railcar loading rate of 385.0 tons per hour. The product loading system includes material conveyors, transfer points, two parallel screens, surge bin, weigh belt and loading spouts. Loading is done via a chute feeder which is also controlled by full-time utilization of dust suppressant to control the generation of dust. The Phosphoric Acid Plant (No. 4 -- V-Train, and No. 5 -- U-Train) has a design feed rate of 170 tons per hour equivalent P_2O_5 feed input. Fluoride emissions from the following sources are controlled by three separate scrubbers; one venturi scrubber and two cross flow packed scrubbers with an air flow rate range of 22,000 to 30,000 ACFM. Sulfur dioxide from each sulfuric acid plant (Nos. 4, 5, and 6) is controlled by a dual absorption tower, and acid mist is controlled by High Velocity and High Efficiency mist eliminators. The Diammonium Phosphate (DAP) Fertilizer Plant (No. 4) consists of a dryer, cooler, reactor and granulator. Emissions from the dryer pass through the venturi, cyclonic and cross-flow scrubbers. Emissions from the cooler

pass through a separate cross-flow scrubber. Emissions from the reactor, granulator, screen vents and material handling systems pass through a separate scrubbing system consisting of venturi, cyclonic and cross-flow scrubbers. The molten sulfur storage and handling system consists of the following: a rail and truck unloading system, one 3,000 ton molten sulfur storage tank, one 6,000 ton molten sulfur storage tank, one 200 ton molten sulfur truck/railcar unloading pit (Pit A), one 300 ton railcar unloading pit (Pit B), and all of the associated transfer pumps and piping. The Package Watertube Boiler is used during cold start-up of the sulfuric acid plant(s) and for make-up steam during times the sulfuric acid plant(s) are operating below capacity and it is routinely fired for maintenance purposes. EU No. 054 is a double absorption sulfuric acid plant at a phosphate fertilizer facility. This plant is designed to produce a maximum of 1,700 tons per day of sulfuric acid (100% H_2SO_4 basis). Sulfur is burned in air first dried by passing through concentrated sulfuric acid in a drying tower. The resulting sulfur dioxide passes through converter units w/catalyst, through an intermediate absorption tower, through a final converter w/catalyst, and then through a final absorption tower (double absorption). Acid mist emissions from the final absorption tower are controlled by a Brink HV Demister. Waste heat from the process is also used to cogenerate electric power. For the operation of a Nebraska Model NS-E-65 Process Steam Boiler, EU No. 055, this boiler shall be fired with natural gas as the primary fuel with new No. 2 fuel oil as backup during natural gas curtailment. EU Nos. 56-60 are the Mulberry molten sulfur loading and storage. Molten sulfur is delivered by tank truck and unloaded by gravity into the truck pit. Pumps in the pit forward the liquid to storage tanks. Emissions of particulates are controlled by pit covers. The four storage tank vents are uncontrolled. CAM does not apply to any of the emissions units at both the Bartow and Mulberry facilities.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Renewal application received April 4, 2003, this facility is a major source of hazardous air pollutants (HAPs).

Mosaic Fertilizer, LLC
Bartow Facility
Facility ID No.: 1050046
Polk County

Title V Air Operation Permit Renewal
PROPOSED Permit No.: 1050046-018-AV
Renewal to the Title V Air Operation Permit No.: 1050046-003-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0144
Fax: 850/922-6979

Compliance Authority:
Florida Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619
Telephone: 813/744-6100
Fax: 813/744-6084

Title V Air Operation Permit Renewal
PROPOSED Permit No.: 1050046-018-AV
Renewal to the Title V Air Operation Permit No.: 1050046-003-AV
Table of Contents

Title V Air Operation Permit Renewal
PROPOSED Permit No.: 1050046-018-AV
Renewal to the Title V Air Operation Permit No.: 1050046-003-AV
Table of Contents Continued

NOTE:
Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

Permittee:
Mosaic Fertilizer, LLC.
3200 Highway 60 West
Bartow, FL 33830

PROPOSED Permit No.: 1050046-018-AV
Facility ID No.: 1050046
SIC Nos.: 28, 2874, 2819
Project: Title V Air Operation Permit Revision

The purpose of this permit is to renew the Title V Air Operation Permit 1050046-003-AV, incorporate the collocated Mosaic Mulberry permit, No. 1050048-001-AV, incorporate the terms of Air Construction Permits 1050046-008-AC, 1050046-017-AC, and 1050046-022-AC, and incorporate the Department approved Alternative Monitoring Plan for scrubbers at the Bartow Facility. This facility is located at 3200 Highway 60 West, Bartow, Polk County; UTM Coordinates: Zone 17, 409.8 km East and 3086.6 km North; and, Latitude: 27° 54' 10" North and Longitude: 81° 54'59" West.

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix U-1, List of Unregulated Emissions Units and/or Activities
APPENDIX TV-4, TITLE V CONDITIONS version dated 02/12/02
APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT version dated 07/96
40 CFR 63 Subparts A, AA, and BB
Alternative Monitoring Plan for Scrubbers: No. 3-C-AP

Initial Effective Date: ARMS Day 55
Renewal Application Due Date: 180 days from expiration date
Expiration Date: 5 years from Effective Date

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Michael G. Cooke, Director
Division of Air Resource Management

MC/jkp/rlb

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of one phosphoric acid plant (two trains), one diammonium phosphate/ monoammonium phosphate (MAP/DAP) plant, one DAP fertilizer plant, four sulfuric acid plants, two fertilizer shipping plants, two boilers, and two molten sulfur storage and handling systems.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the renewal application, facility processes, and initial notification requirements of 40 CFR 63, Subparts AA and BB, this facility is a major source of hazardous air pollutants (HAPs). CAM does not apply to emissions units at both the Bartow and Mulberry facilities.

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
-001	Ammonium/Diammonium Phosphate Plant
-002	No. 4 Fertilizer Shipping Plant
-004	No. 3 Fertilizer Shipping Plant
-010	Phosphoric Acid Plant (No. 4 -- V-Train, and No. 5 -- U-Train)
-012	No. 4 Sulfuric Acid Plant
-021	Diammonium Phosphate Fertilizer Plant
-032	No. 6 Sulfuric Acid Plant
-033	No. 5 Sulfuric Acid Plant
-045	Molten Sulfur System -- Stack 45 from West 200 ton molten sulfur pit
-046	Molten Sulfur System -- Vent 44 and 44A from 6,000 ton tank
-047	Molten Sulfur System -- Vent 43, 43A, 43B, 43C and 43D from 3,000 ton tank
-050	Molten Sulfur System -- Stack 47 from East 300 ton molten sulfur pit
-051	Package Watertube Boiler
-052	Bartow Phosphogypsum Stack
-054	No. 3 Sulfuric Acid Plant
-055	Auxiliary Process Steam Boiler
-056	Molten Sulfur Storage/Handling--Truck Delivery Pit
-057	Molten Sulfur Storage/Handling--Storage Tank, North Vent
-058	Molten Sulfur Storage/Handling--Storage Tank, Southeast Vent
-059	Molten Sulfur Storage/Handling--Storage Tank, Southwest Vent
-060	Molten Sulfur Storage/Handling--Storage Tank, Middle Vent

Unregulated Emissions Units and/or Activities

-053	Facility Wide Fugitive Emissions
-061	Waste Heat Boiler/Flash Tank Discharge
-062	Tank Truck Loading/Unloading of Sulfuric Acid
-063	Industrial Cooling Towers
-064	Process and Product Storage Tanks
-065	Auxiliary Power Generators and Diesel Fuel Tanks
-066	Molten Sulfur Fire and Spill Cleanup
-067	VOC From Solvent Cleaning of Small Parts
-068	Welding, Grinding, and Cutting Metal from Maintenance Vehicles
-069	Fugitive Dust/Exhaust Emissions From Maintenance Vehicles

-070 Miscellaneous Painting and Relining Rubber-Lined Vessels
-071 Vehicle Fleet Fuel Storage Tanks
-072 Sulfuric Acid Plant Catalyst Removal and Classifying

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History / ID Number Transfers
Statement of Basis

These documents are on file with permitting authority:
Initial Title V Permit Application received June 17, 1996
Additional Information Request dated September 25, 1997
Additional Information Response received December 30, 1997
Additional Information Response received March 31, 1998
Additional Information Response received June 12, 1998
Title V Permit Revision Application received December 24, 2001
60 day Waiver Dated February 25, 2002
Title V Renewal Application Received April 4, 2003
Request for Additional Information dated May 29, 2003
Additional Information Response received September 2, 2003
Additional Information Received October 28, 2003
Request for Additional Information dated November 24, 2003
Additional Information Received December 2, 2003
Alternative Monitoring Plan issued January 22, 2004
Request for Additional Information dated April 13, 2004
Request for Additional Information dated May 11, 2004
Additional Information received June 16, 2004 (Mulberry Application)
Additional Information Response received June 25, 2004
Alternative Monitoring testing results received June 28, 2004
Request for Additional Information sent July 23, 2004
Additional Information Received September 3, 2004
Additional Information Response received November 8, 2004
Comments on initial draft permit received February 10, 2005
Air Construction permit application received March 15, 2005

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}

2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not 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.]

3. 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 percent opacity).
[Rule 62-296.320(4)(b)1., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit:

a. a risk management plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, Maryland 20703-1515
Telephone: 301/429-5018

and,

b. to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: confine sand blasting when practical, all outside fertilizer conveyor belts are covered, use street cleaning equipment to remove dirt from paved areas, keep covers on process equipment, prompt cleanup of dry rock spills, posted speed limits on plant roads, fertilizer products are stored inside buildings, and product material transfer points are enclosed.
[Rule 62-296.320(4)(c)2., F.A.C.; Proposed by applicant in the initial Title V permit application received June 17, 1996; Air Construction Permit AC53-253092]

7. Compliance with the monitoring requirements of this permit for monitoring equipment not previously installed prior to issuance of this permit shall commence on the date of the next required compliance test after issuance of this permit.
[Rule 62-213.440(1)(b), F.A.C.]

8. The requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C., *Stationary Sources - Emission Monitoring* and 40 CFR 60, Appendix A.
{Permitting Note: The permittee may perform simultaneous testing for fluorides and particulates per DEP interoffice memorandum dated December 17, 1983. In addition the permittee may use an alternative analytical procedure (Method 13B without fusion and distillation) in lieu of EPA Method 13B for the analysis of fluoride samples per DEP Order No. ASP 95-H01.}
[Rule 62-297.401, F.A.C.]

9. Testing of emissions shall be conducted with the source 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 sources may be tested at less than capacity; in this case subsequent source operation is limited to 110 percent of the test load until a new test is conducted. Once the 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. In no case shall the process or production rate exceed the maximum permitted process or production rate. The actual process or production rate during the test shall be included in each test report. Failure to include the actual process or production rate in the results may invalidate the test. In addition, the test results shall include any operating parameters limited or specified to be recorded in this permit, e.g., scrubber flow rate. [Rule 62-297.310, F.A.C.]

10. If the Department of Environmental Protection has reason to believe that any applicable emission standard is being violated, then the Department of Environmental Protection may require the permittee to conduct compliance tests which identify the nature and quantity of pollutant emissions and to provide a report on the results of the tests.
[Rule 62-297.310(7)(b), F.A.C.]

11. The permittee shall notify the Air Compliance Section of the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the contact person who will be responsible for coordinating and having such test conducted.
[Rules 62-297.310(7)(a)9 and 62-209.500(5), F.A.C]
{Permitting Note: The permittee may at the discretion of the Department, test an emissions unit with less than 15 days advance notice.}

12. The permittee shall submit to the Air Compliance Section of Southwest District Office of the Department each calendar year, on or before March 1, a completed DEP Form 62-213.900 (4), an "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

a. Annual amount of materials and/or fuels utilized;
b. Annual emissions (note calculation basis);
c. Hours of operation;
d. Any changes in the information contained in the permit.

The annual "Statement of Compliance: (ref. Appendix TV-4, item 51) shall be submitted with the AOR.
[Rule 62-210.370(3), F.A.C., ref. Appendix TV-4, item 24]

13. Hours of Operation - Unless otherwise noted, all emission units are allowed to operate continuously, i.e., 8760 hours per year.
[Rule 62-4.070(3), F.A.C.]

14. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

15. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6458

16. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air & EPCA Enforcement Branch
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155
Fax: 404/562-9019

17. This facility is subject to the provisions of 40 CFR 60 Subpart A - General Provisions. A copy of 40 CFR 60 Subpart A - General Provisions is available from the Department upon request.

18. This permit includes a "Subsection" for each emissions unit that includes a description of the emissions unit. That description is descriptive only and is not enforceable.

NOTES to PERMITTEE:

Based on a modeling study approved by the Department, it was determined that emissions from this facility will not have a significant impact on the Hillsborough County Air Quality Maintenance Area and it is therefore exempt from the PM RACT requirements in accordance with Rule 62-296.700(2)(b), F.A.C. The facility, consisting of the following emission units will not have a significant impact on the Air Quality Maintenance Area.

Subsection	E.U. I.D. No.	Description	Particulate Matter (PM) Limit	
			lbs/hr	Tons per year
A	001	Ammonium/Diammonium Phosphate Plant	30.0	131.4
B	002	No. 4 Fertilizer Shipping Plant	10.54[1]	31.6[1]
C	004	No. 3 Fertilizer Shipping Plant	12.0	12.0
F	021	Diammonium Phosphate Fertilizer Plant	22.8[1]	96.9[1]
G	045-050	Molten Sulfur Unloading, Storage and Handling System	1.28[2]	5.35[2]
H	051	Package Watertube Boiler	4.38[3]	3.84[3]
Total			81.0	

[1]Emission limit based on BACT determination.
[2]Emission estimate for emission inventory and PSD purposes.
[3]Emission estimate based on BACT determination.

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.
Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.
Permit Renewal - Reference Appendix TV-4, item 5

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-001	Ammonium/Diammonium Phosphate Plant

The Ammonium/Diammonium Phosphate Plant (No. 3) has a design capacity of 3000 tons per day of MAP/DAP. The process consists of a dryer, a cooler, a reactor/granulator and screen vents.

The dryer is fired with natural gas, or fuel oil with a maximum sulfur content of 2.4 percent, at a design heat input rate of 40 MMBtu per hour. Emissions from the dryer are controlled by a venturi scrubber and a cyclone scrubber. Exhaust from the dryer scrubber goes through a packed bed tailgas scrubber. Emissions from the granulator are also controlled by a venturi scrubber and cyclonic scrubber. The reactor and vents have a separate venturi and cyclonic scrubber as does the cooler. Exhaust from the granulator, reactor, vents and cooler go to a separate packed tailgas scrubber. The tailgas scrubbers exhaust goes to a common stack.

{Permitting note(s): These emissions units are regulated under Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; and Rule 62-296.403, F.A.C., Phosphate Processing; 40 CFR 63, Subpart A - General Provisions; 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants (NESHAP) From Phosphate Fertilizers Production Plants. **The Part 40 CFR 63 Subparts A and BB take precedence, however these units are subject to all applicable State Implementation Plan (SIP) rules if these units are out of compliance with the NESHAP.**}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Capacity.
a. The maximum permitted production rate for the ammonium/diammonium phosphate plant shall not exceed 3000 tons per day of DAP or MAP product.
b. The maximum production rate shall not exceed 61.25 tons per hour of 100 percent phosphoric acid (P_2O_5) input.
c. The maximum heat input rate to the dryer is limited to 40 MMBtu per hour.
[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, Definitions - (PTE), F.A.C., Air Construction Permit 1050046-008-AC]
{Permitting Note: See Conditions A.23 and A.24 for the federally enforceable NESHAP requirements for monitoring and recordkeeping of the equivalent P_2O_5 feed rate.}

A.2. Methods of Operation - (i.e., Fuels).
The dryer shall be fired with natural gas or new No. 6 fuel oil or a better grade oil[(1)]. The fuel oil shall contain no more than 1.5% sulfur, by weight. The "New" fuel oil is defined as being refined from crude oil and has not been used, and may or may not contain additives. No. 6 fuel oil with a maximum content of 1.5% sulfur by weight may be fired up to a maximum of 338,000 gallons per year. Firing rate of either fuel shall not exceed 40 MMBtu per hour. The permittee shall maintain records of the fuel oil supplier's sulfur content analysis.
[Rules 62-4.160(2), and 62-213.440(1), F.A.C., and Air Construction Permit 1050046-008-AC]

[1]Better Grade Fuel Oil
A better grade fuel oil is defined as a fuel with a higher ranking in the following list:

Better Grade (Top of List)
new, No. 2 fuel oil
new, No. 3 fuel oil
new, No. 4 fuel oil
new, No. 5 fuel oil
new, No. 6 fuel oil

A.3. Hours of Operation: This emissions unit is allowed to operate 8760 hours per year.
[Air Construction Permit 1050046-008-AC]

Emission Limitations and Standards
A.4. Fluoride emissions from the Ammonium/Diammonium Phosphate Plant (No. 3) shall not exceed 0.041 pound of fluoride per ton of equivalent P_2O_5 feed or 2.5 pounds of fluoride per hour or 10.95 TPY, whichever is less.
[Rule 62-296.403(1), F.A.C. and Air Construction Permit 1050046-008-AC]
{Permitting Note: The fluoride emission limit in Condition A.4. of 0.041 lb/ton equivalent P_2O_5 feed is less than the applicable NESHAP, 40 CFR 63.622(a) limit of 0.06 lb/ton of equivalent P_2O_5 feed. The permittee shall comply with the applicable requirements of the NESHAP, 40 CFR 63, Subparts A and BB.}

A.5. Particulate emissions from the Ammonium/Diammonium Phosphate Plant (No. 3) shall not exceed 11.0 pounds per hour and 48.2 TPY based on 0.18 lb/ton P_2O_5.
[Air Construction Permit 1050046-008-AC]

A.6. Visible emissions shall be less than 15% opacity. The visible emissions test shall be conducted by a certified observer and be a minimum of thirty minutes in duration, unless otherwise specified within. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.
[Rule 62-296.320(4)(a)(2) and (b) , F.A.C. and Air Construction Permit 1050046-008-AC]

A.7. Fugitive particulate and fluoride emissions from the process, conveying and storage equipment shall be controlled by sealing and/or venting particulate matter and fumes from the equipment to the pollution devices.
[Air Operating Permit AO53-169781]

A.8. 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 (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(1), F.A.C.]

A.9. 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(4), F.A.C.]

A.10. In case of excess emissions resulting from a malfunction, the permittee shall immediately notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection

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(6), F.A.C.]

Test Methods and Procedures

A.11. Test the Ammonium/Diammonium Phosphate Plant (No. 3) for particulates, fluorides, and visible emissions annually.
[Rules 62-297.310(7)(a)4, and 62-4.070(4), F.A.C.; 40 CFR 63.626(a)(1) and 63.630(a)]

A.12. Compliance with the emission limitations of Conditions A.3., A.4 and A.5. shall be determined using EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Chapter 62-297, F.A.C.; 40 CFR 63.626(b) and 63.630(a)]

A.13. Compliance testing of the product dryer shall be conducted while firing oil in the product dryer, if oil of any type has been used in the product dryer for a sum total of more than 400 hours from the previous test. If a test is conducted while firing natural gas, and in the 12 month period following the test, fuel oil of any type is burned for a sum total of more 400 hours, then an additional emissions test per Conditions A.4., A.5., and A.6. shall be conducted, while burning oil in that source, within 30 days of having exceeded the 400 hour oil burning limit. A compliance test is required for operating the product dryer on a lower grade oil than was previously permitted to do so.
[Rules 62-297.310(7)(b), and 62-4.070(3), F.A.C.]
(1) see page A2

A.14. If testing is conducted while firing fuel oil in the dryer, compliance with the sulfur content requirement of Condition A.2 shall be demonstrated during the test by submitting either of the following with the test report:

a. A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
b. A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.

[Rule 62-4.070(3), F.A.C.].

Monitoring of Operations

Conditions A.15, A.16, and A.17 are applicable to the monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart BB (See NESHAP Conditions A.20 through A.29) and 40 CFR 63, Subpart A.

A.15. The permittee shall calibrate, maintain, and operate a flow 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 ± 5% over its operating range.
[Air Operation Permit AO53-169781, and Air Construction Permit 1050046-008-AC]

A.16. In order to provide reasonable assurance that the fluoride emission limitation is being met, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum:

a. the water flow rate (gallons per minute),
b. the scrubber pressure drop (inches of water),
c. the date and time of the measurements, and
d. the name of the person responsible for performing the measurements.

A record log entry for each scrubber shall be made at least once for every 8 hour shift when the Ammonium/Diammonium Phosphate Plant operates.

NOTE: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.
[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

A.17. The pollution control equipment shall be operated in accordance with the Department approved Alternate Monitoring Plan for the scrubbers associated with this unit. Modification of the Alternate Monitoring Plan requires Department approval as referenced in Condition A.27.
[Rule 62-4.070(3)]

Continuous Monitoring Requirements
Condition A.18 is applicable to NESHAP, 40 CFR 63, Subparts A and BB.
A.18. The permittee shall calibrate, maintain and operate a monitoring device which continuously measures and permanently records total pressure drop across each scrubber system. The monitoring device shall have an accuracy of ± 5% over its operating range.
[Air Operation Permit AO53-169781, and Air Construction Permit 1050046-008-AC]

Recordkeeping and Reporting Requirements
Condition A.19 is applicable to NESHAP, 40 CFR 63, Subparts A and BB.
A.19. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass in tons per hour of phosphorus-bearing feed using a monitoring device for determining mass flow rate which meets the requirements of A.12 and then by processing according to 40 CFR 60.224(b)(3).
[40 CFR 60.223(b)]

A.20. In order to document continuing compliance with the maximum sulfur content requirement of Condition A.2, the permittee shall maintain a record of the sulfur content of the fuel oil received for use in the product dryer. These records may be based on vendor supplied information or analysis of samples taken by the permittee in accordance with Rule 62-297.440, F.A.C.
[Rule 62-4.070(3), F.A.C.]

A.21. A daily record log(s) shall be established and maintained to document, at a minimum, the following:

a. the quantity of natural gas and the quantity of oil and type of oil (No.2, No.3, No. 4, No. 5, or No. 6 fuel oil) utilized in the product dryer.
b. the sulfur content (percent, by weight) of each type of oil (No. 2, No. 3, No. 4, No. 5, or No. 6 fuel oil) utilized in the product dryer. The sulfur content may be based upon vendor supplied as-delivered oil sulfur content information, or an oil analysis.
c. the total hours of product dryer operation using oil of any type.
d. the total hours of product rock dryer operation using oil of any type for each rolling 12 consecutive month period (hours per 12 months).

[Rule 62-4.070(3), F.A.C.]
{Permitting Note: See NESHAP Conditions (Conditions A.23. through A.33.) as well as 40 CFR 63, Subpart A for additional recordkeeping requirements.}

A.22. All test reports submitted to the Air Compliance Section of the Southwest District Office of the Department shall include, at a minimum, the following information for the test period:

a. Type of fuel being fired.
b Heat input rate (MMBtu per hour) and firing rate

(MCF per hour or gallons per hour).

c. Material process input rate (Tons per hour) and production rate (Tons per hour).
d Scrubber liquid flow rate (gpm).
e. If the test was conducted while firing natural gas, then include a statement of the total hours of dryer operation while firing fuel oil, of any type, during the 12 consecutive month period prior to the test.

Failure to submit the above information, or operating at conditions which do not reflect normal operating conditions may invalidate the test and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C.]
{Permitting Note: See NESHAP Conditions (Conditions A.23 through A.33) as well as 40 CFR 63, Subpart A, for additional monitoring and recordkeeping requirements during performance tests.}

NESHAP Conditions

A.23. The permittee shall achieve compliance with the requirements of 40 CFR 63, Subpart BB no later than June 10, 2002.
[40 CFR 63.630(a)]

A.24. This emissions unit is exempted from the requirements in NSPS, 40 CFR 60, Subpart V effective upon the date that the permittee demonstrates compliance with 40 CFR 63, Subpart BB.
[40 CFR 63.631]

A.25. This emissions unit is subject to specific requirements in the 40 CFR 63, Subpart A - General Provisions.
[40 CFR 63, Appendix A of Subpart BB]

A.26. On or after the date on which the initial performance (compliance) test is completed, the permittee must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant the requirements of 40 CFR 63.625(f)(1) or 63.625(f)(2), as indicated in Condition A.26.
[40 CFR 63.624]

A.27. The permittee shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ± 5 % over its operating range.
[40CFR 63.625(a)]

A.28. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of 40 CFR 63.625(b) and then by proceeding according to 40 CFR 63.626(c)(3).
[40 CFR 63.625(b)]

A.29. The permittee shall install, calibrate, maintain, and operate the following monitoring systems:

A. **Pressure Drop.** A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 % over its operating range.
B. **Scrubbing Liquid Flow Rate.** A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 % over its operating range.

[40CFR 63.625(c)]

A.30. Following the date on which the performance test required in § 63.626 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (f)(1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ± 20 percent of the baseline average value determined as a requirement of § 63.626(c)(4) or (d)(4). The Administrator retains the right to reduce the ± 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but, in no instance shall the adjustment be reduced to less than ± 10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. The baseline average values used for compliance shall be based on the values determined during the most recent performance test. The new baseline average value shall be effective on the date following the performance test.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges of baseline average values for the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in this subpart and established in the manner required in § 63.626(c)(4) or (d)(4). As an alternative, the owner or operator can establish the allowable ranges of baseline average values using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in § 63.626(c)(4) or (d)(4). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges of baseline average values developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges of baseline average values. When a source using the methodology of this paragraph is retested, the owner operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters from previous tests. Any new allowable ranges of baseline average values resulting from the most recent performance test shall be effective on the date following the retest. Until changes to allowable ranges of baseline average values are approved by the Administrator, the allowable ranges for use in § 63.624 shall be based upon the range of baseline average values proposed for approval.
[40 CFR 63.625(f)]

A.31. To comply with § 63.625(f)(1) or (2), the owner or operator shall use the monitoring systems in § 63.625(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 63.625(f)(1) or (2).
[40 CFR 63.626(c)(4)]

A.32. The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.626(c), based on the equivalent P_2O_5 computed as indicated in 40 CFR 63.626(c)(3).
[40 CFR 63.626(c)]

A.33. The permittee must comply with the notification requirements in 40 CFR 63.9 and the reporting and recordkeeping requirements in 40 CFR 63.10. The reporting requirements in 40 CFR 63.10 includes the initial and annual performance test reports, excess emissions reports, and the summary report.
[40 CFR 63.627]

A.34. This emission unit is subject to specific requirements of 40 CFR 63, Subpart BB, Appendix A to Subpart BB – Applicability to General Provisions to Subpart BB, and alternative MACT monitoring plan (Administrative Order No. 03-C-AP, dated 01/22/2004). The owner or operator is responsible for remaining in compliance with any updates made to Subpart A or BB. To establish operating parameters for this emissions unit, the owner or operator must comply /and demonstrate with the following:

1) Must comply with all conditions of the Order No. 03-C-AP,
2) Must comply with all applicable requirements of Subparts A and BB,
3) Specifically notify the department the testing will be for establishing allowable ranges for this emissions unit according to Subparts A and BB,
4) All tests must be precisely conducted according to the MACT standards and all applicable test methods,
5) All tests must clearly demonstrate compliance with all MACT standards and applicable test methods and requirements,
6) All tests shall be submitted to the Department in accordance with Subparts A and BB,
7) The test results will become the new allowable ranges after the Department has had 30 days to review the test results. Failure to meet any requirements of this condition, Subpart A or BB, or the alternate plan will negate use of any new ranges derived from the test.

[40 CFR 63- Subpart A, 40 CFR 63- Subpart BB, and Administrative Order No. 3-C-AP, Alternate MACT Monitoring Plan]

Subsection B. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-002	No. 4 Fertilizer Shipping Plant

The No. 4 Fertilizer Shipping Plant includes material conveyors, transfer points, and one (1) truck and two (2) rail car shipping bins and loadout spouts. All material transfer points are located inside the material handling building and are covered and evacuated to minimize fugitive emissions. The truck and rail car loading operations are beneath the building and enclosed on two sides. Loading is done via a chute feeder which is also controlled by dust suppressant.

An evacuation scrubber dust control system is used to control moisture in the building. The scrubber will be allowed to operate only when dust suppressant is being applied to control PM emissions. Any deviation from 100% dust suppressant to control PM emissions will result in compliance action and submittal of a Compliance Assurance Monitoring (CAM) Plan by the permittee for the scrubber.

{Permitting note(s): These emissions units are regulated under Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Capacity. The maximum truck and/or railcar product loading rate shall not exceed 660 tons per hour.
[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, Definitions - (PTE), F.A.C.]

B.2. Hours of Operations The hours of operation for this emissions unit shall not exceed 6,000 hours in any 12 consecutive month period.
[Rule 62-210.200, F.A.C., Definitions - (PTE), Air Construction Permit AC53-239194, as requested by permittee, December 6, 1993]

Emission Limitations and Standards

B.3. Particulate Matter (PM) emissions will be controlled 100% by dust suppressant.
[Applicant Request, Letter dated October 28, 2004]

B.4. Any deviation from 100% dust suppressant to control PM emissions will result in compliance action and submittal of a Compliance Assurance Monitoring (CAM) Plan by the permittee for the scrubber. The conditions for the scrubber will remain in the permit. The scrubber will be used for moisture control in shipping building during loading operations.
[Rule 62-4.070(3), F.A.C.]

B.5. Particulate matter (PM) emissions from the No. 4 Fertilizer Shipping Plant shall exceed neither 0.03 grains/dscf nor 10.54 pounds per hour (based upon a maximum exhaust gas flow rate of 41,000 dcsfm). Based upon the hours of operation limitation of Condition B.2, this results in a maximum annual emission rate limitation of 31.6 tons/12 consecutive month period.
[BACT Determination, January 2, 1981, Air Construction Permit AC53-239194]

B.6. Visible emissions from the No. 4 Fertilizer Shipping Plant evacuation scrubber dust control system shall be less than 20% opacity. The visible emissions test shall be conducted by a certified observer and

be a minimum of thirty minutes in duration, unless otherwise specified within. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.
[Rule 62-296.320(4)(a)(2) and (b), F.A.C., BACT Determination of January 2, 1981]

B.7. There shall be no visible emissions (i.e. opacity equal to or less than 5%) to the ambient atmosphere from any point of the No. 4 Fertilizer Shipping Plant when application of a dust suppressant is being used to control particulate emissions.
[Rule 62-4.070(3), F.A.C., Air Construction Permit AC53-239194, requested by permittee, December 6, 1993, Applicant Request, Letter dated October 28, 2004]

Test Methods and Procedures

B.8. Test the No. 4 Fertilizer Shipping Plant exhaust stack for particulates, and visible emissions annually. The annual particulate stack test can be waived, except a particulate stack test shall be conducted during the 180 day period prior to expiration of this air permit, by submittal of a statement that the dust suppressant oil system has been used and the scrubber system has not been used since the last compliance test. A performance test on the dust suppressant dust control system shall be conducted as specified in Condition B.9.
[Rules 62-297.310(7)(a)4, F.A.C. and 62-4.070(4), F.A.C.]

B.9. Compliance with the emission limitations of Conditions B.3., B.4. and B.5. shall be determined using EPA Methods 1, 2, 4, 5, 9 and 22 contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Chapter 62-297, F.A.C.]

B.10. The permittee shall conduct a visible emissions performance test within 30 days of changing the type(s) or brand of dust suppression oils used at the No. 4 Fertilizer Shipping Plant. The report shall at a minimum include the following:

a. The specific type of dust suppression oil to be used (include a MSDS sheet on this material if available);
b. The point of application of the dust suppression oil, the minimum rate at which it will be applied, and a description of how the rate of application will be controlled and measured (for the purposes of recordkeeping);
c. Statement of the results of observation of visible emissions from transfer and loading points when dust suppression oil is being applied at the minimum rate.

[Rule 62-4.070(3), F.A.C., Air Construction Permit AC53-239194, requested by permittee, December 6, 1993]

Monitoring of Operations

B.11. The scrubber shall be operated at or above the following minimum operating parameters established below:

Pollution Control Equipment	Parameter	Minimum Limitation	Units	Averaging Time
Scrubber	Flow	170	GPM	3 hr
	Pressure Drop	2.5	in. H_2O	3 hr

[Rule 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

B.12. In order to document compliance with Conditions B.1, B.2 and B.11, the permittee shall maintain the following records:

a. Daily and monthly total hours of operation of the No. 4 Fertilizer Shipping Plant (time periods operated, and total hours/day and hours/month);
b. Quantity of product loaded out each day (tons/day);
c. For each period of operation, a statement of whether the evacuation and scrubber dust control system was in service or whether dust suppressant oil was being applied to the product being processed;
d. For each period when dust suppressant oil was being used to control particulate emissions, a description of, and rate of application of the suppressant oil (gallons/minute or hour);
e. For each period when the evacuation and scrubber dust control system was in service to control particulate emissions, a log of the following scrubber parameters shall be kept:
    1. pressure drop across the scrubber (in inches W.G.);
    2. water flow in GPM;
    3. scrubber fan amps;
    4. visual verification that the scrubber pump is operating properly.

    An entry shall be made in the scrubber operation log for each of the above parameters at least once per shift.

[Rule 62-4.070(3), F.A.C.]

Subsection C. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-004	No. 3 Fertilizer Shipping Plant

The No. 3 Fertilizer Shipping Plant has a maximum permitted MAP/DAP product railcar loading rate of 385.0 tons per hour. The product loading system includes material conveyors, transfer points, two parallel screens, surge bin, weigh belt and loading spouts.

All material transfer points are located inside the material handling building and are covered and evacuated to prevent fugitive emissions. The rail car loading operations are beneath the building and enclosed on two sides. Loading is done via a chute feeder which is also controlled by full-time utilization of dust suppressant to control the generation of dust.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards. This emissions unit is exempted from Particulate Matter RACT (Rule 62-296.700(2)(b), F.A.C., and ref. Condition C.3.)}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Capacity. The maximum railcar MAP/DAP product loading rate shall not exceed 385.0 tons per hour (average daily basis) and 2,310,000 tpy (12 consecutive month basis).
[Rule 62-4.160(2), F.A.C., Rule 62-210.200, Definitions - (PTE), F.A.C., Air Construction Permit 1050046-017-AC]

C.2. Hours of Operations The hours of operation for this emissions unit shall not exceed 6,000 hours per any 12 month consecutive period.
[Rule 62-210.200, Definitions - (PTE), F.A.C., as requested by permittee, August 5, 1994, Air Construction Permit 1050046-017-AC]

Emission Limitations and Standards

C.3. There shall be no visible emissions (i.e. opacity less than or equal to 5%) to the ambient atmosphere from any point of the No. 3 Fertilizer Shipping Plant when application of a dust suppressant is being used to control particulate emissions. Full-time utilization of dust suppressant is used to control the generation of dust.
[Rule 62-4.070(3), F.A.C., requested by permittee, August 5, 1994]

Test Methods and Procedures

C.4. Test the No. 3 Fertilizer Shipping Plant for visible emissions annually. A performance test on the dust suppressant dust control system shall be conducted as specified in Condition C.5.
[Rules 62-297.310(7)(a)4, F.A.C. and 62-4.070(3), F.A.C.]

C.5. The permittee shall conduct a visible emissions performance test within 30 days of changing the type(s) or brand of dust suppression oils used at the No. 3 Fertilizer Shipping Plant. The report shall at a minimum include the following:

a. The specific type of dust suppression oil to be used (include a MSDS sheet on this material if available);

b. The point of application of the dust suppression oil, the minimum rate at which it will be applied, and a description of how the rate of application will be controlled and measured (for the purposes of recordkeeping);
c. Statement of the results of observation of visible emissions from transfer and loading points when dust suppression oil is being applied at the minimum rate.

[Rule 62-4.070(3), F.A.C., requested by permittee, August 5, 1994]

Recordkeeping and Reporting Requirements

C.6. In order to document compliance, the permittee shall maintain the following records:

a. Quantity of product loaded out each day (tons/day);
b. If suppressant oil was being used to control particulate emissions, a description of, and rate of application of the suppressant oil (gallons/minute or hour);

[Rule 62-4.070(3), F.A.C.]

Subsection D. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-010	Phosphoric Acid Plant (No. 4 -- V-Train, No. 5 -- U-Train)

The Phosphoric Acid Plant (No. 4 -- V-Train, and No. 5 -- U-Train) has a design feed rate of 170 tons per hour equivalent P_2O_5 feed input. Fluoride emissions from the following sources are controlled by three separate scrubbers; one venturi scrubber and two cross flow packed scrubbers with an air flow rate range of 22,000 to 30,000 ACFM: No. 4 and No. 5 reactors, No. 3, No. 4, and No. 5 filters (filter feed box only), No. 3, No. 4, and No. 5 filtrate tanks (hot wells), No. 4 and No. 5 barometric condenser seal tanks, No. 1 and No. 2 Evaporator FSA Seal Tank, and No. 3 and No. 4 Evaporator FSA Seal Tank.

{Permitting note(s): These emissions units are regulated under NSPS - 40 CFR 60, Subpart T, Standards of Performance (NSPS) for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants, adopted and incorporated by reference in Rule 62-204.800(7)(b)25., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-296.403, F.A.C., Phosphate Processing; 40 CFR 63, Subpart A - General Provisions; 40 CFR 63, Subpart AA - National Emission Standards for Hazardous Air Pollutants (NESHAP) From Phosphoric Acid Manufacturing Plants. **The Part 40 CFR 63 Subparts A and AA take precedence over NSPS standards, but will not take precedence over BACT determinations. However these units are subject to all applicable NSPS standards if these units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP}**

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Capacity. The maximum production rate of the Nos. 4 and 5 Phosphoric Acid Plants (combined) shall not exceed 170.0 tons P_2O_5 per hour of equivalent P_2O_5 feed[1] rate, and may operate 8760 hours per year.
[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, Definitions - (PTE), F.A.C., Air Construction Permits AC53-262532/PSD-FL-224 and 1050046-013-AC/PSD-FL-295]
{Permitting Note: 586.2 tons per hour of phosphate rock is equivalent to 170 tons of P_2O_5; Phosphate rock is typically 29% P_2O_5, 170 TPH÷0.29 = 586.2 TPH of phosphate rock. See Conditions D.16 and D.17 for NESHAP requirements for monitoring and recordkeeping of the equivalent P_2O_5 feed rate.}
[1] **"Equivalent P_2O_5 Feed Rate"** - the quantity of phosphorus, expressed as phosphorous pentoxide, feed to the process.

Emission Limitations and Standards

D.2. The total fluoride emissions[2] shall not exceed 0.01 lbs/ton of equivalent P_2O_5 feed.
[Air Construction Permit 1050046-013-AC/PSD-FL-295; 40 CFR 63.602(b)(1)]
[2] **"Total Fluoride Emissions"** - elemental fluorine and all fluoride compounds as measured by reference methods specified in 40 CFR 60.204, or equivalent or alternative methods as approved by the Department.

D.3. 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 (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(1), F.A.C.]

D.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.
[Rule 62-210.700(4), F.A.C.]

D.5. In case of excess emissions resulting from a malfunction, the permittee shall immediately notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection 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(6), F.A.C.]

Test Methods and Procedures

D.6. The permittee shall test the emissions from Nos. 4 and 5 Phosphoric Acid Train scrubbers, and No. 3 Filter process scrubber simultaneously. The permittee shall test annually to demonstrate compliance with the applicable emissions standards of 40 CFR 63, Subpart AA.
[Rules 62-297.310(7)(a)4, 62-296.800, F.A.C., and 40CFR60.202(a) ; 40 CFR 63.606(a)(1) and 63.609(a)]

D.7. Compliance with the fluoride emission limitation of Condition D.2 shall be determined using EPA Methods 1, 2, 3, 4 and 13A or 13B as contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C. The minimum requirements for stack sampling facilities, sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A. Starting no later than the compliance date of 40 CFR 63, Subpart AA, June 10, 2002, the permittee shall test annually according to the procedures in 40 CFR 63, Subparts A and AA.
[Chapter 62-297, F.A.C.; 40 CFR 63.606(b)]

Monitoring of Operations
Conditions D.8. and D.9 are applicable to the monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart AA (See NESHAP Conditions D.15 through D.26) and 40 CFR 63, Subpart A.

D.8. The pollution control equipment shall be operated in accordance with the Department approved Alternate Monitoring Plan for the scrubbers associated with this unit. Modification of the Alternate Monitoring Plan requires Department approval as referenced in Condition D.22.
[Rule 62-4.070(3), F.A.C.]

D.9. In order to provide reasonable assurance that the fluoride emission limitation of Condition D.2 is being met, the permittee shall create and keep a record log of the scrubber operating parameters for each plant . The record log shall contain, at a minimum:

a. the water flow rate (gallons per minute),
b. the scrubber pressure drop (inches of water),
c. the date and time of the measurements, and
d. the name of the person responsible for performing the measurements.

A log entry shall be made at least once for every shift (12 hours) that the Phosphoric Acid Plant operates.

NOTE: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.
[Rules 62-4.070(3), 62-4.160(14)(b), 62-4.160(14)(c), and 62-213.440(b)2.b., F.A.C.]

Continuous Monitoring Requirements
Conditions D.10 and D.11 are applicable to the monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart AA (See NESHAP Conditions D.15 through D.26) and 40 CFR 63, Subpart A.

D.10 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 ±5% over its operating range.
[40CFR60.203(a)]

D.11. The permittee shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the process scrubbing system. The monitoring device shall have an accuracy of ±5% over its operating range.
[40CFR60.203(c)]

Recordkeeping and Reporting Requirements
Conditions D.12. and D.13 are applicable to the monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart AA (See NESHAP Conditions D.15 through D.26) and 40 CFR 63, Subpart A.

D.12. The permittee shall maintain a daily record of the equivalent P_2O_5 feed rate for the phosphoric acid plant according to the procedure specified in 40CFR60.203(b)- *Monitoring of Operations*.
[40CFR60.203 and Rule 62-4.070(3), F.A.C.]

D.13. The monitoring devices required by Conditions D.10 and D.11 for the equivalent P_2O_5 feed rate and the total pressure drop measurement across the scrubber are considered inoperative when they are out-of-service or fail to produce valid data. Upon the occurrence of 48 consecutive hours of continuous monitoring system downtime, the permittee shall notify the Air Compliance Section, Southwest District Office of the Department by 5:00 p.m., or on the Department's next business day, of the incident and specify the corrective action being pursued.

Notify: Air Compliance Supervisor
Southwest District Office
Department of Environmental Protection
Telephone: (813) 744-6100
FAX: (813) 744-6458

[Rule 62-4.130, F.A.C.]

D.14. The following scrubber operating parameters shall be monitored and recorded during the compliance test and a summary of this data shall be included with the fluoride emissions test report:

a. the water flow rate (gallons per minute)
b. the scrubber pressure drop (inches of water)
c. "equivalent P_2O_5 feed" rate

NOTE: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.
[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

NESHAP Conditions

D.15. The permittee shall achieve compliance with the requirements of 40 CFR 63, Subpart AA no later than June 10, 2002.
[40 CFR 63.609(a)]

D.16. This emissions unit is exempted from the requirements in NSPS, 40 CFR 60, Subpart T effective upon the date that the permittee demonstrates compliance with 40 CFR 63, Subpart AA.
[40 CFR 63.610]

D.17. This emissions unit is subject to specific requirements in the 40 CFR 63, Subpart A - General Provisions.
[40 CFR 63, Appendix A of Subpart AA]

D.18. On or after the date on which the initial performance (compliance) test is completed, the permittee shall maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber with in the allowable ranges established pursuant to 40 CFR 63.605(d)(1) or (2), as indicated in Condition D.19
[40 CFR 63.604]

D.19. The permittee shall install calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of the phosphorus-bearing feed to the process. The monitoring system shall have an accuracy of ±5 % over its operating range.
[40 CFR 63.605(a)]

D.20. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate of the phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of 40 CFR 63.605(a) and using the calculation method of 40 CFR 63.606(c)(3).
[40 CFR 63.605(b)(1)]

D.21. The permittee shall install, calibrate, maintain, and operate the following monitoring systems:

A. **Pressure Drop.** A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 % over its operating range.

B. **Scrubbing Liquid Flow Rate.** A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 % over its operating range.

[40CFR 63.605(c)]

D.22. Following the date on which the performance test required in § 63.606 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (d)(1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ± 20 percent of the baseline average value determined as a requirement of § 63.606(c)(4), (d)(4), or (e)(2). The Administrator retains the right to reduce the ± 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of

emissions is near the value of an applicable emissions standard, but, in no instance shall the adjustment be reduced to less than ± 10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. The baseline average values used for compliance shall be based on the values determined during the most recent performance test. The new baseline average value shall be effective on the date following the performance test

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges of baseline average values for the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in this subpart and established in the manner required in § 63.606(c)(4), (d)(4), or (e)(2). As an alternative, the owner or operator can establish the allowable ranges of baseline average values using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in § 63.606(c)(4), (d)(4), or (e)(2). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges of baseline average values developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges of baseline values. When a source using the methodology of this paragraph is retested, the owner operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters from previous tests. Any new allowable ranges of baseline average values resulting from the most recent performance test shall be effective on the date following the retest. Until changes to allowable ranges of baseline average values are approved by the Administrator, the allowable ranges for use in § 63.604 shall be based upon the range of baseline average values proposed for approval.
[40 CFR 63.605(d)]

D.23. To comply with § 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in § 63.605(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 63.605(d)(1) or (2).
[40 CFR 63.606(c)(4)]

D.24. The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.606(c), based on the equivalent P_2O_5 computed as indicated in 40 CFR 63.606(c)(3).
[40 CFR 63.606(c)]

D.25. The permittee must comply with the notification requirements in 40 CFR 63.9 and the reporting and recordkeeping requirements in 40 CFR 63.10. The reporting requirements in 40 CFR 63.10 includes the initial and annual performance test reports, excess emissions reports, and the summary report.
[40 CFR 63.607]

D.26. Pursuant to Rule 62-210.700, F.A.C., Emission Unit -010 is subject to the following:

a. Excess emission 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. 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.

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.

d. In case of excess emissions resulting from malfunctions, each source shall notify the Department 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., Air Construction Permit 1050046-013-AC/PSD-FL-295]

D.27. This emission unit is subject to specific requirements of 40 CFR 63, Subpart AA, Appendix A to Subpart AA– Applicability to General Provisions to Subpart AA, and alternative MACT monitoring plan (Administrative Order No. 03-C-AP, dated 01/22/2004). The owner or operator is responsible for remaining in compliance with any updates made to Subpart A or AA. To establish operating parameters for this emissions unit, the owner or operator must comply and demonstrate with the following:

1) Must comply with all conditions of the Order No. 03-C-AP,
2) Must comply with all applicable requirements of Subparts A and AA,
3) Specifically notify the department the testing will be for establishing allowable ranges for this emissions unit according to Subparts A and AA,
4) All tests must be precisely conducted according to the MACT standards and all applicable test methods,
5) All tests must clearly demonstrate compliance with all MACT standards and applicable test methods and requirements,
6) All tests shall be submitted to the Department in accordance with Subparts A and AA,
7) The test results will become the new allowable ranges after the Department has had 30 days to review the test results. Failure to meet any requirements of this condition, Subpart A or AA, or the alternate plan will negate use of any new ranges derived from the test.

[40 CFR 63- Subpart A, 40 CFR 63- Subpart AA, and Administrative Order No. 3-C-AP, Alternate MACT Monitoring Plan]

Subsection E. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-012	No. 4 Sulfuric Acid Plant
-032	No. 6 Sulfuric Acid Plant
-033	No. 5 Sulfuric Acid Plant

Sulfur dioxide from each sulfuric acid plant (Nos. 4, 5, and 6) is controlled by a dual absorption tower, and acid mist is controlled by HV and HE mist eliminators. Each plant produces a maximum of 2600 tons per day of sulfuric acid (100% H_2SO_4 basis).

{Permitting note(s): This emissions unit is regulated under NSPS - 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid, adopted and incorporated by reference in Rule 62-204.800(7)(b)10., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; and Rule 296.402, F.A.C., Sulfuric Acid Plants.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

E.1. Capacity. The production rate of sulfuric acid for each plant, measured as 100% H_2SO_4, shall not exceed 2600 tons per day (108.33 tons/hr daily average basis).
[Air Construction permit AC53-271436/PSD-FL-229, Rule 62-4.160(2), F.A.C. and Rule 62-210.200, Definitions - (PTE), F.A.C.]

Emission Limitations and Standards

E.2. Visible emissions from each plant shall not be equal to or greater than 10% opacity. The visible emissions test shall be conducted by a certified observer and be a minimum of thirty minutes in duration, unless otherwise specified within. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.
[Rule 62-204.800(7)(b)(10)., F.A.C., Rule 62-297.310(4)(a)(2), and 40 CFR 60.83(a)(2)]

E.3. Sulfur dioxide emissions from each plant shall not exceed any of the following:
a. 4 pounds per ton of 100% H_2SO_4 produced;
b. 433.3 pounds per hour;
c. 1898 tons per year.
[Rule 62-204.800(7)(b)10, F.A.C., 40 CFR 60.82(a), and Air Construction Permit AC53-271436/PSD-FL-229]

E.4. Acid (H_2SO_4) mist emissions for each plant shall not exceed any of the following:
a. 0.15 pounds per ton of 100% H_2SO_4 produced;
b. 16.25 pounds per hour;
c. 71.2 tons per year.
[Rule 62-204.800(7)(b)10, F.A.C., 40 CFR 60.83(a)(1), and Air Construction Permit AC53-271436/PSD-FL-229]

E.5. Nitrogen oxides emissions from each plant shall not exceed any of the following:
a. 0.12 pounds per ton of 100% H_2SO_4 produced;
b. 13.0 pounds per hour;

c. 57.0 tons per year.
[Air Construction Permit AC53-271436/PSD-FL-229]

Test Methods and Procedures

E.6. Test the emissions from each plant for the following pollutants annually for:
a. Visible Emissions
b. Sulfur Dioxide
c. Acid Mist
[Rule 62-297.310(7)(a)4, F.A.C.]

E.7. Test the nitrogen oxides emissions from each plant, on or during the 180 day period prior to the expiration date of this permit.
[Rule 62-297.310(7)(a)3, F.A.C.]

E.8. Compliance with the emission limitations of Conditions E.2, E.3, E.4, and E.5 shall be determined in accordance with 40 CFR 60.85 using EPA Methods 1, 2, 3, 7E, 8, and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Chapter 62-297, F.A.C.]

Excess Emissions

E.9. Excess emissions resulting from startup, shutdown, or malfunction are permitted providing: (1) best operational practices to minimize emissions are adhered to and; (2) the duration of excess emissions are minimized. 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. In case of excess emissions resulting from malfunctions, the permittee shall notify the Department 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.
[Rules 62-210.700(1), (4), and (6), F.A.C.]

E.10. This permit acknowledges that leaks of sulfur dioxide and sulfur trioxide, or other fugitive process emissions that do not pass through a stack, may occur as part of routine operations. Best operational practices to minimize these emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions.
[Rule 62-4.070(3), F.A.C.]

Continuous Monitoring Requirements

E.11. For each plant, a continuous emission monitoring system for the measurement of sulfur dioxide shall be calibrated, maintained and operated as specified in 40 CFR 60.84. The span value of the continuous monitor shall be set at 1000 ppm.
[Rules 62-204.800(7)(b)10 and 62-297.500, F.A.C., and 40 CFR 60.84]

E.12. The permittee shall determine emissions in the units of the applicable standard (lb/ton) in accordance with 40 CFR 60.84(b) or (d).
[Rules 62-204.800(7)(b)10 and 62-297.500, F.A.C., and 40 CFR 60.84]

Recordkeeping and Reporting Requirements

E.13. In order to document ongoing compliance with the emission limitations of Condition E.3, the permittee shall maintain monthly records of Sulfuric Acid Plant sulfur dioxide (SO_2) emissions for each emission unit. The records shall include the following for each day of the month:

a. daily acid production (in tons as 100% H_2SO_4);
b. hours operated;
c. daily average pounds/ton SO_2;

[Rule 62-4.070(3), F.A.C]

E.14. For each plant, the permittee shall submit a written report of excess sulfur dioxide emissions each calendar quarter in accordance with 40 CFR 60.7 (b) and (c) and Rule 62-296.402(4), F.A.C. Periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standard under 40 CFR 60.82. The excess emission report shall also include a statement of all periods during the quarter when the sulfur dioxide monitoring system was inoperative. The quarterly sulfur dioxide excess emission report shall be submitted to the Southwest District Office of the Department. All reports shall be postmarked by the 30th day following the end of each calendar quarter.
[Rules 62-204.800(7)(b)10, and 62-213.440(1)(b)2.b, F.A.C. and 40 CFR 60.7 and 60.84(e)]

E.15. For each plant, the permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system (sulfur dioxide) or monitoring device is inoperative. Records on monitoring system performance evaluations, calibrations and maintenance shall be maintained in accordance with 40 CFR 60.7(d).
[Rules 62-204.800(7)(b)10 and 62-213.440(1)(b)2.b, F.A.C. and 40 CFR 60.7]

E.16. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection.
[Rules 62-204.800(7)(b)10 and 62-213.440(b)2.b, F.A.C. and 40 CFR 60.7(d)]

Operational Procedures

E.17. Not federally enforceable. The permittee shall follow the *MEMORANDUM OF UNDERSTANDING REGARDING BEST OPERATIONAL START-UP PRACTICES FOR SULFURIC ACID PLANTS.* [Signed and Executed on October 25, 1989, Rules 62-4.070(3) and 62-210.700(1), F.A.C.]

Not federally enforceable.

MEMORANDUM OF UNDERSTANDING
REGARDING BEST OPERATIONAL START-UP PRACTICES
FOR SULFURIC ACID PLANTS

These Sulfuric Acid Plant Best Operation Start-Up Practices will be made available in the control room at all times.

1. Only one sulfuric acid plant at a facility should be started up and burning sulfur at a time, There are times when it will be acceptable for more than one sulfuric acid plant to be in the start-up mode at the same time, provided the following condition is met. It is not acceptable to initiate sulfur burning at one sulfuric acid plant when another plant at the same facility is emitting SO_2 at a rate in excess of the emission limits imposed by the permit or rule, as determined by the CEMs emission rates for the immediately preceding 20 minutes.

2. A plant start-up must be at the lowest practicable operating rate, not to exceed 70 percent of the designated operating rate, until the SO_2 monitor indicates compliance, Because production rate is difficult to measure during start-up, if a more appropriate indicator (such as blower pressure, furnace temperature, gas strength, blower speed, number of sulfur guns operating, etc.) can be documented, tested and validated, the Department will accept this in lieu of directly documenting the operating rate. Implementation requires the development of a suitable list of surrogate parameters to demonstrate and document the reduced operating rate on a plant-by-plant basis. Documentation that the plant is conducting start-up at the reduced rate is the responsibility of the owner or operator.

3. Sulfuric acid plants are authorized to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices, in accordance with this agreement, to minimize emissions are followed. No plant shall be operated (with sulfur as fuel) out of compliance for more than three consecutive hours, Thereafter, the plant shall be shut down, The plant shall be shut down (cease burning sulfur) if, as indicated by the continuous emission monitoring system, the plant is not in compliance within three hours of start-up, Restart may occur as soon as practicable following any needed repairs or adjustments, provided the corrective action is taken and properly documented.

4. Cold Start-Up Procedures.

a. Converter.

(1) The inlet and outlet temperature at the first two masses of catalyst shall be sufficiently high to provide immediate ignition when SO_2 enters the masses, In no event shall the inlet temperature to the first mass be less than 800°F or the outlet temperature to the first two masses be less than 700°F. These temperatures are the desired temperatures at the time the use of auxiliary fuel is terminated.

(2) The gas stream entering the converter shall contain SO_2 at a level less than normal, and sufficiently low to promote catalytic conversion to SO_3.

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved. In no event shall the concentration be less than 96 percent H_2SO_4.

5. Warm Restart.

a. Converter.

The inlet and outlet temperatures of the first two catalyst masses should be sufficiently high to ensure conversion. one of the following three conditions must be met:

(1) The first two catalyst masses inlet and outlet temperatures must be at a minimum of 700°F; or

(2) Two of the four inlet and outlet temperatures must be greater than or equal to 800°F; or

(3) The inlet temperature of the first catalyst must be greater than or equal to 600°F and the outlet temperature greater than or equal to 800°F. Also, the inlet and outlet temperatures of the second catalyst must be greater than or equal to 700°F.

Failure to meet one of the above conditions, requires use of cold start-up procedures.

To allow for technological improvements or individual plant conditions, alternative conditions will be considered by the Department in appropriate cases.

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved, In no event shall the concentration be less than 96 percent H_2SO_4.

Subsection F. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-021	Diammonium Phosphate Fertilizer Plant

The Diammonium Phosphate (DAP) Fertilizer Plant (No. 4) consists of a dryer, cooler, reactor and granulator. Emissions from the dryer pass through the venturi, cyclonic and cross-flow scrubbers. Emissions from the cooler pass through a separate cross-flow scrubber. Emissions from the reactor, granulator, screen vents and material handling systems pass through a separate RGV scrubbing system consisting of venturi, cyclonic and cross-flow scrubbers. The exhaust from all three processes is discharged through a common stack.

{Permitting note(s): These emissions units are regulated under NSPS - 40 CFR 60, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants, adopted and incorporated by reference in Rule 62-204.800(7)(b)27., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; 62-212.400, F.A.C., Prevention of Significant Deterioration; Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; and Rule 62-296.403, F.A.C., Phosphate Processing; 40 CFR 63, Subpart A - General Provisions; 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants. **The Part 40 CFR 63 Subparts A and BB take precedence over NSPS standards, but will not take precedence over BACT determinations. However these units are subject to all applicable NSPS standards if these units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP}.**

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

F.1. Capacity.

a. The maximum production rate for the diammonium phosphate fertilizer plant shall not exceed 261 tons of DAP per hour (daily average basis; 120 TPH @ 100% P_2O_5) and 2,170,212 tons of DAP per year.
b. The maximum heat input rate to the dryer shall not exceed 40 MMBtu per hour (daily average basis).

[Air Construction Permit AC53-246403/PSD-FL-211, Rule 62-4.160(2), F.A.C. and Rule 62-210.200, , Definitions - (PTE), F.A.C.]
{Permitting Note: See Conditions F.24 and F.25 for the NESHAP requirements for monitoring and recordkeeping of the equivalent P_2O_5 feed rate.}

F.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8,500 hours in any 12 consecutive month period.
[Rule 62-210.200, Definitions - (PTE), F.A.C., Air Construction Permit AC53-246403/PSD-FL-211]

F.3. Methods of Operation - (i.e., Fuels).

a. The dryer shall be fired with natural gas as the primary fuel, or new No. 6 fuel oil. The No. 6 fuel oil is for emergency use only. The fuel oil shall contain no more than 2.4% sulfur, by weight.
b. The oil firing rate for the DAP Fertilizer Plant Dryer shall not exceed 200,000 gallons per year of No. 6 fuel oil.

[Rules 62-4.160(2), F.A.C. and 62-213.440(1), F.A.C., Air Construction Permit AC53-246403/PSD-FL-211, BACT determination November 14, 1994]
{Permitting notes: When this Subsection F refers to "No. 6 fuel oil" it applies equally to Nos. 2 through 5 fuel oil.}

Emission Limitations and Standards

F.4. Fluoride emissions from the Diammonium Phosphate Fertilizer Plant (No. 4) shall not exceed any of the following:

a. 0.06 pound of fluoride per ton of equivalent P_2O_5 feed (30 g/metric ton) ;
b. 5.50 pounds of fluoride per hour;
c. 23.40 tons of fluorides per year.

[40 CFR 60.222, Air Construction Permit AC53-246403/PSD-FL-211]
{Permitting Note: The fluoride emission limit in Condition F.4. of 0.06 lb/ton equivalent P_2O_5 feed is the same as the applicable NESHAP, 40 CFR 63.622(a) limit of 0.06 lb/ton of equivalent P_2O_5 feed. The permittee shall comply with the applicable requirements of the NESHAP, 40 CFR 63, Subparts A and BB.

F.5. Particulate emissions from the Diammonium Phosphate Fertilizer Plant (No. 4) shall not exceed any of the following:

a. 0.19 pound of particulate per ton of equivalent P_2O_5 feed;
b. 22.8 pounds of particulate per hour;
c. 96.9 tons of particulate per year.

[Air Construction Permit AC53-246403/PSD-FL-211, BACT determination November 21, 1994]

F.6. Visible emissions shall be not exceed 10% opacity. The visible emissions test shall be conducted by a certified observer and be a minimum of thirty minutes in duration, unless otherwise specified within. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.
[Air Construction Permit AC53-246403/PSD-FL-211, Rule 62-297.310(4)(a)2, F.A.C.]

F.7. Fugitive emissions from the process, conveying and storage equipment shall be controlled by sealing and/or venting particulate matter and fumes from the equipment to the pollution abatement system.
[Air Construction Permit AC53-246403/PSD-FL-211]

F.8. 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 (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(1), F.A.C.]

F.9. 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(4), F.A.C.]

F.10. In case of excess emissions resulting from a malfunction, the permittee shall immediately notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection 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(6), F.A.C.]

Test Methods and Procedures

F.11. Test the Diammonium Phosphate Fertilizer Plant (No. 4) for particulates, fluorides, and visible emissions annually, on or during the 60 day period prior to August 5.
[Rules 62-297.310(7)(a)4,and 62-4.070(4), F.A.C. .; 40 CFR 63.626(a)(1) and 63.630(a)]

F.12. Compliance with the emission limitations of Conditions F.4., F.5. and F.6. shall be determined using EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Chapter 62-297, F.A.C.; 40 CFR 63.626(b) and 63.630(a)]

F.13. Compliance testing of the dryer shall be conducted while firing oil in the dryer, if No. 6 fuel oil has been used in the dryer for a sum total of more than 400 hours from the previous test. If a test is conducted while firing natural gas, and in the 12 month period following the test, fuel oil of any type is burned for a sum total of more 400 hours, then an additional emissions test (visible emissions and sulfur content) per Conditions F.6 and F.11 shall be conducted, while burning oil in that source, within 30 days of having exceeded the 400 hour oil burning limit.
[Rules 62-297.310(7)(b), and 62-4.070(3), F.A.C.]

F.14. If testing is conducted while firing fuel oil in the dryer, compliance with the sulfur content requirement of Condition F.3 shall be demonstrated during the test by submitting either of the following with the test report:

a. A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
b. A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.

[Rule 62-4.070(3), F.A.C.].

Monitoring of Operations

Conditions F.15, F.16, and F.17 are applicable to NESHAP, 40 CFR 63, Subparts A and BB requirements.

F.15. The permittee shall calibrate, maintain, and operate a flow 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 ± 5% over its operating range.
[40 CFR 60.223(a)]

F.16. In order to provide reasonable assurance that the fluoride emission limitation is being met, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum:

a. the water flow rate (gallons per minute),
b. the scrubber pressure drop (inches of water),
c. the date and time of the measurements, and
d. the name of the person responsible for performing the measurements.

A record log entry for each scrubber shall be made at least once for every shift when the Ammonium Phosphate Fertilizer Plant operates.

NOTE: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.
[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

F.17. The scrubbers shall be operated at or above the following minimum operating parameters established below:

Pollution Control Equipment	Parameter	Minimum Limitation	Units	Averaging Time
Cooler Scrubber	Flow (pond water)	250	GPM	3 hr
	Pressure Drop	1	in. H_2O	3 hr
Dryer Tailgas Scrubber	Flow (pond water)	1,100	GPM	3 hr
	Pressure Drop	4	in. H_2O	3 hr
RGV Tailgas Scrubber	Flow (pond water)	1,600	GPM	3 hr
	Pressure Drop	4	in. H_2O	3 hr
Dryer Venturi & Cyclonic	Flow (recovery soln)	250	GPM	3 hr
	Pressure Drop	4	in. H_2O	3 hr
RGV Venturi & Cyclonic	Flow (recovery soln)	900	GPM	3 hr
	Pressure Drop	13	in. H_2O	3 hr

[Rule 62-4.070(3), F.A.C.]

Continuous Monitoring Requirements

Condition F.15 is applicable to monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart BB (See NESHAP Conditions F.23 through F.32) and 40 CFR 63, Subpart A.

F.18. The permittee shall calibrate, maintain and operate a monitoring device which continuously measures and permanently records total pressure drop across each scrubber system. The monitoring device shall have an accuracy of ± 5% over its operating range.
[40 CFR 60.223(c)]

Recordkeeping and Reporting Requirements

Condition F.19 is applicable to monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart BB (See NESHAP Conditions F.23 through F.32) and 40 CFR 63, Subpart A.

F.19. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass in tons per hour of phosphorus-bearing feed using a monitoring device for determining mass flow rate which meets the requirements of F.15 and then by processing according to 40 CFR 60.224(b)(3).
[40 CFR 60.223(b)]

F.120. In order to document continuing compliance with the maximum sulfur content requirement of Condition F.3, the permittee shall maintain a record of the sulfur content of the fuel oil received for use in the dryer. These records may be based on vendor supplied information or analysis of samples taken by the permittee in accordance with Rule 62-297.440, F.A.C.
[Rule 62-4.070(3), F.A.C.]

F.21. A daily record log(s) shall be established and maintained to document, at a minimum, the following:

a. the quantity of natural gas and the quantity of No. 6 fuel oil utilized in the dryer.
b. the sulfur content (percent, by weight) of No. 6 fuel oil utilized in the dryer. The sulfur content may be based upon vendor supplied as-delivered oil sulfur content information, or an oil analysis.
c. the total hours of dryer operation using oil of any type.

d. the total hours of dryer operation using oil of any type for each rolling 12 consecutive month period (hours per 12 months).
e. hourly production of diammonium phosphate (daily average basis). [AC53-246403/PSD-FL-211]

[Rule 62-4.070(3), F.A.C.]
{Permitting Note: See NESHAP Conditions (Conditions F.23. through F.32) as well as 40 CFR 63, Subpart A, for additional recordkeeping requirements.}

F.22. All test reports submitted to the Department shall include, at a minimum, the following information for the test period:

a. Type of fuel being fired.
b Heat input rate (MMBtu per hour) and firing rate (MCF per hour or gallons per hour).
c. Material process input rate (tons per hour) and production rate (tons per hour).
d Scrubber liquid flow rate (gpm).
e. If the test was conducted while firing natural gas, then include a statement of the total hours of dryer operation while firing fuel oil, of any type, during the 12 consecutive month period prior to the test.

Failure to submit the above information, or operating at conditions which do not reflect normal operating conditions may invalidate the test and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C.]
{Permitting Note: See NESHAP Conditions (Conditions F.23. through F.32) as well as 40 CFR 63, Subpart A, for additional monitoring and recordkeeping requirements during performance tests.}

NESHAP Conditions

F.23. The permittee shall achieve compliance with the requirements of 40 CFR 63, Subpart BB no later than June 10, 2002.
[40 CFR 63.630(a)]

F.24. This emissions unit is exempted from the requirements in NSPS, 40 CFR 60, Subpart V effective upon the date that the permittee demonstrates compliance with 40 CFR 63, Subpart BB.
[40 CFR 63.631]

F.25. This emissions unit is subject to specific requirements in the 40 CFR 63, Subpart A - General Provisions.
[40 CFR 63, Appendix A of Subpart BB]

F.26. On or after the date on which the initial performance (compliance) test is completed, the permittee must maintain daily average of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant the requirements of 40 CFR 63.625(f)(1) or 63.625(f)(2), as indicated in Condition F.27.
[40 CFR 63.624]

F.27. The permittee shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ± 5 % over its operating range.
[40CFR 63.625(a)]

F.28. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of 40 CFR 63.625(b) and then by proceeding according to 40 CFR 63.626(c)(3). [40 CFR 63.625(b)]

F.29. The permittee shall install, calibrate, maintain, and operate the following monitoring systems:

A. **Pressure Drop.** A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 % over its operating range.

B. **Scrubbing Liquid Flow Rate.** A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 % over its operating range.

[40CFR 63.625(c)]

F.30. Following the date on which the performance test required in § 63.626 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (f)(1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is $\pm$ 20 percent of the baseline average value determined as a requirement of § 63.626(c)(4) or (d)(4). The Administrator retains the right to reduce the $\pm$ 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but, in no instance shall the adjustment be reduced to less than $\pm$ 10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. The baseline average values used for compliance shall be based on the values determined during the most recent performance test. The new baseline average value shall be effective on the date following the performance test.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges of baseline average values for the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in this subpart and established in the manner required in § 63.626(c)(4) or (d)(4). As an alternative, the owner or operator can establish the allowable ranges of baseline average values using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in § 63.626(c)(4) or (d)(4). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges of baseline average values developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges of baseline average values. When a source using the methodology of this paragraph is retested, the owner operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters from previous tests. Any new allowable ranges of baseline average values resulting from the most recent performance test shall be effective on the date following the retest. Until changes to allowable ranges of baseline average values are approved by the

Administrator, the allowable ranges for use in § 63.624 shall be based upon the range of baseline average values proposed for approval.
[40 CFR 63.625(f)]

F.31. The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.626(c), based on the equivalent P_2O_5 computed as indicated in 40 CFR 63.626(c)(3).
[40 CFR 63.626(c)]

F.32. The permittee must comply with the notification requirements in 40 CFR 63.9 and the reporting and recordkeeping requirements in 40 CFR 63.10. The reporting requirements in 40 CFR 63.10 includes the initial and annual performance test reports, excess emissions reports, and the summary report.
[40 CFR 63.627]

Subsection G. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-045	Molten Sulfur System -- Stack 45 from Pit A, 200 ton molten sulfur pit
-046	Molten Sulfur System -- Vent 44 from 6,000 ton tank
-047	Molten Sulfur System -- Vent 43, 43A, 43B, 43C and 43D from 3,000 ton tank
-050	Molten Sulfur System -- Stack 47 from Pit B, 300 ton molten sulfur pit

The molten sulfur storage and handling system consists of the following: a rail and truck unloading system, one 3,000 ton molten sulfur storage tank, one 6,000 ton molten sulfur storage tank, one 200 ton molten sulfur truck/railcar unloading pit (Pit A), one 300 ton railcar unloading pit (Pit B), and all of the associated transfer pumps and piping.

Molten sulfur from the (Pit A) 200 ton sulfur unloading pit is pumped directly to the No. 4, 5, and 6 sulfuric acid plants and to the No. 3 fertilizer plant at a combined rate of 2,630 tons per day. Sulfur in excess of that required to supply the sulfuric acid plants is pumped to either the 6,000 ton or the 3,000 ton molten sulfur storage surge tanks. The (Pit B) 300 ton railcar sulfur unloading pit is used to unload up to three 100 ton capacity railcars at a time, for a maximum unloading rate of 300 tons per hour. The (Pit A) 200 ton truck/railcar unloading pit has a maximum unloading rate, consisting of one 100-ton capacity railcar and eight 25-ton trucks, of 300 tons per hour. From the unloading pit, molten sulfur is transferred to either the 6,000 ton storage tank at a maximum rate of 108 tons per hour or the 3,000 ton storage tank at a maximum rate of 157 tons per hour. The molten sulfur storage pits are kept under forced draft ventilation at an airflow rate of approximately 2,700 acfm and exhausted to separate 40 foot tall stacks.

{Permitting note(s): This emissions unit is regulated under Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; and Rule 62-296.411, F.A.C., Sulfur Storage and Handling Facilities.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

G.1. Capacity. The molten sulfur feed rate to the sulfuric acid plant shall exceed neither 2,630 tons per day (TPD), nor 960,000 tons per year (TPY).
[Air Construction Permit AC53-271436/PSD-FL-229, Rule 62-4.160(2), F.A.C. and Rule 62-210.200, Definitions - (PTE), F.A.C.]

Emission Limitations and Standards

G.2. Visible emissions from any emission point in the molten sulfur system shall not exceed 20% opacity (six minute average).
[Rule 62.296.411(1)(g), F.A.C.]

G.3. For emission inventory and PSD purposes, the estimated maximum emissions from the sources in the molten sulfur storage and handling system are:

Pollutant	Total Emissions (TPY)	Maximum Emissions (lb/hr)
Sulfur particles emissions	5.35	1.28
TRS (as H_2S) emissions	6.56	1.56
SO_2	13.68	3.26
VOC emissions	9.75	2.32

[Air Construction permit AC53-271436/PSD-FL-229]

7. 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 (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(1), F.A.C.]

8. 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(4), F.A.C.]

9. In case of excess emissions resulting from a malfunction, the permittee shall immediately notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection 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(6), F.A.C.]

Test Methods and Procedures

G.4. Each identified emission point, Stack 45 from (Pit A) 200 ton molten sulfur pit, Vent 44 from 6,000 ton tank, Vent 43, 43A, 43B, 43C and 43D from 3,000 ton tank, and Stack 47 from (Pit B) 300 ton molten sulfur pit, shall be tested for visible emissions on or during the 180 day period prior to the expiration date of this permit.
[Rule 62-297.310(7)(a)3, F.A.C.]

G.5. Compliance with the visible emission limitation of Condition G.2 shall be determined using DEP Method 9 and shall be conducted by a certified observer and be a minimum of thirty (30) minutes in duration. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C.
[Rules 62-297.310(4)(a)2, and 62-296.411(1)(j)1., F.A.C.]

G.6. Testing of emissions must be conducted when the emission unit being tested is in operation and the test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.
[Rule 62-297.310(4)(a)2, F.A.C.]

Operating Practices

G.7. All molten sulfur transfer shall be through enclosed piping systems where feasible and practical. In user facilities, molten sulfur may be transferred by covered trench or a movable spout which is positioned

over a receiving pit. Contact surfaces between stationary pipes shall seat effectively around the entire circumference to minimize spillage.
[Rule 62.296.411(1)(a), F.A.C.]

G.8. All areas surrounding points where molten sulfur pipes are routinely disconnected and areas where molten sulfur is transferred to trucks or railcars shall be paved and curbed within 20 feet of the point of disconnection or transfer to contain any spilled molten sulfur, or shall be provided with non-corrosive drip pans or other secondary containment, positioned to collect spills, that are adequate to contain amounts of sulfur that may escape during routine disconnection, re-connection or operation of the piping system.
[Rule 62-296.411(1)(b), F.A.C.]

G.9. All spilled molten sulfur shall be collected and properly disposed of whenever the containment area is filled to one-half its containment capacity, or monthly, whichever is more frequent. Spills of molten sulfur outside of a containment area, or where subject to vehicular traffic, shall be collected and disposed of as soon as possible, but no later than 24 hours after the spill occurs. Drip pans or other secondary containment shall be cleaned as needed to prevent exceedance of capacity, but at least weekly.
[Rule 62-296.411(1)(d), F.A.C.]
G.10. All vent surfaces shall be cleaned monthly to remove captured particles.
[Rule 62-296.411(1)(e), F.A.C.]

G.11. Any change in the method of operation or equipment which will cause an increase in the actual emissions may be considered a modification and must be reported to the Southwest District Office of the Department for proper processing prior to implementing the change.
[Rules 62-210.300 and 62-210.200(185), F.A.C.]

Recordkeeping and Reporting Requirements

G.12. The permittee shall maintain records of spills outside of containment areas and of collection and disposal of spilled sulfur.
[Rule 62-296.411(1)(f), F.A.C.]

G.13. In order to document compliance with the requirements of Condition G.1, the permittee shall maintain the following records at the facility and make them available to the Department upon request:

a. Daily molten sulfur receiving rate (in TPD) (East and West sulfur pits).
b. Monthly total sulfur receiving rate (tons per month) and cumulative total for the calendar year period (tons per year) (including sulfur loaded out to trucks).
c. Sulfuric acid plant daily sulfur utilization rate (tons per day).
d. Sulfuric acid plant monthly total sulfur utilization rate (tons per month) and cumulative total for the calendar year period (tons year).

[Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.]

Subsection H. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-051	Package Watertube Boiler

The Package Watertube Boiler is used during cold start-up of the sulfuric acid plant(s) and for make-up steam during times the sulfuric acid plant(s) are operating below capacity and it is routinely fired for maintenance purposes. The maximum steam capacity of this boiler is 50,000 pounds per hour. This boiler is fired with natural gas as the primary fuel with new No. 5 fuel oil or better grade of fuel oil as the back-up fuel. The maximum heat input rate to this boiler is 64.0 MMBtu per hour. Fuel oil will be fired only during natural gas curtailment at a maximum of 400 hours per year.

{Permitting note(s): These emissions units are regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 Million Btu per Hour Heat Input, New and Existing Emissions Units. These Emissions Units are subject to 40 CFR 63 Subpart DDDDD- Industrial, Commercial, and Institutional Boilers and Process Heaters.}

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

H.1. Capacity.

a. The maximum heat input to the Package Watertube Boiler shall not exceed 64.0 MMBtu per hour (daily average basis).
b. The maximum fuel usage rate shall not exceed 443 gallons per hour (daily average basis) of new No. 5 fuel oil or a better grade oil[(1)].
c. The maximum fuel usage rate shall not exceed 64,000 ft^3 per hour of natural gas(daily average basis).

[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, Definitions - (PTE), F.A.C., Air Construction Permit AC53-221062]

H.2. Methods of Operation - (i.e., Fuels).

a. The Package Watertube Boiler shall be fired only with natural gas as the primary fuel with new No. 5 fuel oil or a better grade oil[(1)] as the back-up fuel.
b. The fuel oil shall contain no more than 1.5% sulfur, by weight.
c. Fuel oil shall be fired only during natural gas curtailment and only at a maximum of 400 hours per year.

New oil means an oil that has been refined from crude oil and has not been used and which may or may not contain additives. Waste/Recycled oil shall be not fired in this process steam boiler without prior approval from the Department.

[Rules 62-4.160(2), 62-213.440(1), and 62-296.406(2) and (3), F.A.C., Air Construction Permit AC53-221062]

[(1)]Better Grade Fuel Oil

A better grade fuel oil is defined as a fuel with a higher ranking in the following list:

Better Grade (Top of List)
new, No. 2 fuel oil
new, No. 3 fuel oil
new, No. 4 fuel oil
new, No. 5 fuel oil
new, No. 6 fuel oil

Emission Limitations and Standards

H.3. Visible emissions shall not exceed 20% opacity except for one two-minute period per hour during which opacity shall not exceed 40%.
[Rule 62-296.406(1), F.A.C.]

Test Methods and Procedures

H.4. The Package Watertube Boiler shall be tested for visible emissions annually.
[Rule 62-297.310(7)(a)4, F.A.C.]

H.5. Compliance with the visible emission (VE) limitation of Condition H.3 shall be determined using EPA Method 9 contained in Chapter 62-297, F.A.C. The visible emissions test shall be conducted by a certified observer and be a minimum of sixty (60) minutes in duration. The visible emissions test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. The minimum requirements for stationary point source emission test procedures and reporting shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60 Appendix A.
[Rules 62-297, F.A.C. and 62-297.310(4)(a)2, F.A.C.]

H.6. Compliance with the sulfur content limitation of Condition H.2 shall be demonstrated during the visible emission compliance test by submitting either of the following with the visible emission test report:

a. A Certificate of Fuel Oil Analysis indicating the weight percent sulfur content and the heat content from the fuel oil supplier for the fuel oil used during the compliance test.

b. A Certificate of Fuel Oil Analysis for an as-burned fuel oil sample taken during the compliance test indicating the weight percent sulfur content and the heat content.

[Rule 62-4.070(3), F.A.C.]

H.7. The visible emissions compliance test could be waived, on a year by year basis, if fuel oil has not been fired in this boiler for more than 400 hours for the previous 12 months and if it is not expected to be fired in this boiler for more than 400 hours during the next 12 months. Each year, when the VE test is due, a letter must be sent to Southwest District Office of the Department stating that the above limitations for the waiver have been satisfied. Regardless of fuel usage, a visible emissions test shall be conducted during the six month period prior to the expiration date of this permit. The visible emissions test shall be conducted by a certified observer and be a minimum of thirty minutes in duration, unless otherwise specified within. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.
[Rule 62-296.310, F.A.C.]

Recordkeeping and Reporting Requirements

H.8. The permittee shall submit a statement of the fuel in use, and the fuel heat input rate for each boiler, as a part of the compliance test report. Failure to submit the fuel in use, heat input rate, fuel oil sulfur content, or operating at conditions which do not reflect the normal operating conditions, may invalidate the test and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C.]

H.9. In order to document compliance with the rate limitations of Condition H.1, the permittee shall maintain daily records of the type of fuel fired, the quantity of fuel fired, burned, and the total hours of operation for the boiler.
[Rule 62-4.070(3), F.A.C.]

H.10. In order to document compliance with Condition H.2, daily records shall be maintained of the sulfur content, in % by weight, of the fuel oil fired in the boiler.
{Permitting Note: SO_2 analysis of each batch of fuel oil will suffice for this Condition.}
[Rules 62-4.070(3), and 62-213.440(1)(b)2.b., F.A.C.]

Subsection I. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-052	Bartow Phosphogypsum Stack

Phosphogypsum stack.

{Permitting note(s): This emissions unit is regulated under Rule 40 CFR 61 Subpart A and R (National Emission Standards for Hazardous Air Pollutants -- General Provisions; and National Emission Standards for Radon Emissions from Phosphogypsum Stacks.).}

The following conditions apply to the emissions unit(s) listed above:

I.1. The permittee shall comply with 40 CFR 61 Subpart A and R (National Emission Standards for Hazardous Air Pollutants -- General Provisions; and National Emission Standards for Radon Emissions from Phosphogypsum Stacks).

I.2. The following specific conditions are a verbatim copy of 40 CFR 61 Subpart R-National Emission Standards for Radon Emissions From Phosphogypsum Stacks:

§61.200 Designation of facilities.

The provisions of this subpart apply to each owner or operator of a phosphogypsum stack, and to each person who owns, sells, distributes, or otherwise uses any quantity of phosphogypsum which is produced as a result of wet acid phosphorus production or is removed from any existing phosphogypsum stack.

§ 61.201 Definitions.

As used in this subpart, all terms not defined here have the meaning given them in the Clean Air Act or subpart A of part 61. The following terms shall have the following specific meanings:

(a) Inactive stack means a stack to which no further routine additions of phosphogypsum will be made and which is no longer used for water management associated with the production of phosphogypsum. If a stack has not been used for either purpose for two years, it is presumed to be inactive.

(b) Phosphogypsum is the solid waste byproduct which results from the process of wet acid phosphorus production.

(c) Phosphogypsum stacks or stacks are piles of waste resulting from wet acid phosphorus production, including phosphate mines or other sites that are used for the disposal of phosphogypsum.

§61.202 Standard.

Each person who generates phosphogypsum shall place all phosphogypsum in stacks. Phosphogypsum may be removed from a phosphogypsum stack only as expressly provided by this subpart. After a phosphogypsum-gypsum stack has become an inactive stack, the owner or operator shall assure that the stack does not emit more than 20 pCi/m^2-s of radon-222 into the air.

§61.203 Radon monitoring and compliance procedures.

(a) Within sixty days following the date on which a stack becomes an inactive stack, or within ninety days after the date on which this subpart first took effect if a stack was already inactive on that date, each owner or operator of an inactive phosphogypsum stack shall test the stack for radon-222 flux in accordance with the procedures described in 40 CFR part 61, appendix B, Method 115. EPA shall be notified at least 30 days prior to each such emissions test so that EPA may, at its option, observe the test. If meteorological conditions are such that a test cannot be properly conducted, then the owner or operator shall notify EPA and test as soon as conditions permit.

(b) (1) Within ninety days after the testing is required, the owner or operator shall provide EPA with a report detailing the actions taken and the results of the radon-222 flux testing. Each report shall also include the following information:

(i) The name and location of the facility;

(ii) A list of the stacks at the facility including the size and dimensions of each stack;

(iii) The name of the person responsible for the operation of the facility and the name of the person preparing the report (if different);

(iv) A description of the control measures taken to decrease the radon flux from the source and any actions taken to insure the long term effectiveness of the control measures; and

(v) The results of the testing conducted, including the results of each measurement.

(2) Each report shall be signed and dated by a corporate officer in charge of the facility and contain the following declaration immediately above the signature line: ``I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on may inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. See, 18 U.S.C. 1001."

(c) If the owner or operator of an inactive stack chooses to conduct measurements over a one year period as permitted by Method 115 in appendix B to part 61, within ninety days after the testing commences the owner or operator shall provide EPA with an initial report, including the results of the first measurement period and a schedule for all subsequent measurements. An additional report containing all the information in §61.203(b) shall be submitted within ninety days after completion of the final measurements.

(d) If at any point an owner or operator of a stack once again uses an inactive stack for the disposal of phosphogypsum or for water management, the stack ceases to be in inactive status and the owner or operator must notify EPA in writing within 45 days. When the owner or operator ceases to use the stack for disposal of phosphogypsum or water management, the stack will once again become inactive and the owner or operator must satisfy again all testing and reporting requirements for inactive stacks.

(e) If an owner or operator removes phosphogypsum from an inactive stack, the owner shall test the stack in accordance with the procedures described in 40 CFR part 61, appendix B, Method 115. The stack shall be tested within ninety days of the date that the owner or operator first removes phosphogypsum from the stack, and the test shall be repeated at least once during each calendar year that the owner or operator removes additional phosphogypsum from the stack. EPA shall be notified at least 30 days prior to an emissions test so that EPA may, at its option, observe the test. If meteorological conditions are such that a test cannot be properly conducted, then the owner shall notify EPA and test as soon as conditions permit. Within ninety days after completion of a test, the owner or operator shall provide EPA with a report detailing the actions taken and the results of the radon-222 flux testing. Each such report shall include all of the information specified by §61.203(b).

§61.204 Distribution and use of phosphogypsum for agricultural purposes.

Phosphogypsum may be lawfully removed from a stack and distributed in commerce for use in agriculture if each of the following requirements is satisfied:

(a) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by 61.207.

(b) The average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as determined pursuant to 61.207, shall not exceed 10 picocuries per gram (pCi/g).

(c) All phosphogypsum distributed in commerce for use in agriculture by the owner or operator of a phosphogypsum stack shall be accompanied by a certification document which conforms to the requirements of 61.208(a).

(d) Each distributor, retailer, or reseller who distributes phosphogypsum for use in agriculture shall prepare certification documents which conform to the requirements of §61.208(b).

§61.205 Distribution and use of phosphogypsum for research and development.

(a) Phosphogypsum may be lawfully removed from a stack and distributed in commerce for use in research and development activities if each of the following requirements is satisfied:

(1) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by §61.207.

(2) All phosphogypsum distributed in commerce by the owner or operator of a phosphogypsum stack, or by a distributor, retailer, or reseller, or purchased by the end-user, shall be accompanied at all times by certification documents which conform to the requirements of §61.208.

(b) Phosphogypsum may be purchased and used for research and development purposes if the following requirements are satisfied:

(1) Each quantity of phosphogypsum purchased by a facility for a particular research and development activity shall be accompanied by certification documents which conform to the requirements of §61.208.

(2) No facility shall purchase or possess more than 700 pounds of phosphogypsum for a particular research and development activity.

(3) Containers of phosphogypsum used in research and development activities shall be labeled with the following warning:

Caution: Phosphogypsum Contains Elevated Levels of Naturally Occurring Radioactivity

(4) For each research and development activity in which phosphogypsum is used, the facility shall maintain records which conform to the requirements of 61.209(c).

(c) Phosphogypsum not intended for distribution in commerce may be lawfully removed from a stack by an owner or operator to perform laboratory analyses required by this subpart or any other quality control or quality assurance analyses associated with wet acid phosphorus production.

§61.206 Distribution and use of phosphogypsum for other purposes.

(a) Phosphogypsum may not be lawfully removed from a stack and distributed or used for any purpose not expressly specified in 61.204 or 61.205 without prior EPA approval.

(b) A request that EPA approve distribution and/or use of phosphogypsum for any other purpose must be submitted in writing and must contain the following information:

(1) The name and address of the person(s) making the request.

(2) A description of the proposed use, including any handling and processing that the phosphogypsum will undergo.

(3) The location of each facility, including suite and/or building number, street, city, county, state, and zip code, where any use, handling, or processing of the phosphogypsum will take place.

(4) The mailing address of each facility where any use, handling, or processing of the phosphogypsum will take place, if different from paragraph (b)(3) of this section.

(5) The quantity of phosphogypsum to be used by each facility.

(6) The average concentration of radium-226 in the phosphogypsum to be used.

(7) A description of any measures which will be taken to prevent the uncontrolled release of phosphogypsum into the environment.

(8) An estimate of the maximum individual risk, risk distribution, and incidence associated with the proposed use, including the ultimate disposition of the phosphogypsum or any product in which the phosphogypsum is incorporated.

(9) A description of the intended disposition of any unused phosphogypsum.

(10) Each request shall be signed and dated by a corporate officer or public official in charge of the facility.

(c) The Assistant Administrator for Air and Radiation may decide to grant a request that EPA approve distribution and/or use of phosphogypsum if he determines that the proposed distribution and/or use is at lease as protective of public health, in both the short term and the long term, as disposal of phosphogypsum in a stack or a mine.

(d) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution and/or use of phosphogypsum for a specified purpose, each of the following requirements shall be satisfied:

(1) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by 61.207.

(2) All phosphogypsum distributed in commerce by the owner or operator of a phosphogypsum stack, or by a distributor, retailer, or reseller, or purchased by the end-user, shall be accompanied at all times by certification documents which conform to the requirements 61.208.

(3) The end-user of the phosphogypsum shall maintain records which conform to the requirements of 61.209(c).

(e) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution and/or use of phosphogypsum for a specified purpose, the Assistant Administrator may decide to impose additional terms or conditions governing such distribution or use. In appropriate circumstances, the Assistant Administrator may also decide to waive or modify the recordkeeping requirements established by 61.209(c).

§61.207 Radium-226 sampling and measurement procedures.

(a) Before removing phosphogypsum from a stack for distribution to commerce pursuant to §61.204, §61.205, or §61.206, the owner or operator of a phosphogypsum stack shall measure the average radium-226 concentration at the location in the stack from which phosphogypsum will be removed. Measurements shall be performed for each such location prior to the initial distribution in commerce of phosphogypsum removed from that location and at least once during each calendar year while distribution of phosphogypsum removed from the location continues.

(b) The radium-226 concentration shall be determined in accordance with the analytical procedures described in 40 CFR part 61, appendix B, Method 114.

(c) Phosphogysum samples shall be taken at regularly spaced intervals across the surface of the location in the phosphogypsum stack from which phosphogypsum will be removed.

(d) The minimum number of samples considered necessary to determine a representative average radium-226 concentration for the location on the stack to be analyzed shall be calculated as follows:

(1) Obtain the measured mean and standard deviation of 30 regularly spaced phosphogypsum samples.

(2) Solve the following equation for the number of samples required to achieve a 95% confidence interval:

$$e = \frac{\tau (n)s}{xvn}$$

where:

τ is the students - τ distribution,
s = measured standard deviation of the radium-226 concentration,
x = measured mean of the radium-226 concentration,
e = allowable error (expressed as a fraction), and
n = number of samples.

See Reference 1 of Method 115 in appendix B to part 61 for a detailed discussion of this statistical technique.

(3) If the number of samples required is greater than 30, then obtain and analyze the necessary number of additional samples and recalculate the average radium-226 concentration using the combination of the results of the original 30 samples and additional samples. The additional samples shall also be regularly spaced across the surface of the location in the phosphogypsum stack from which phosphogypsum will be removed.

§61.208 Certification requirements.

(a) (1) The owner or operator of a stack from which phosphogypsum will be removed and distributed in commerce pursuant to 61.204, 61.205, or 61.206 shall prepare a certification document for each quantity of phosphogypsum which is distributed in commerce which includes:

(i) The name and address of the owner or operator;

(ii) The name and address of the purchaser or recipient of the phosphogypsum;

(iii) The quantity (in pounds) of phosphogypsum sold or transferred;

(iv) The date of sale or transfer;

(v) A description of the intended end-use for the phosphogypsum;

(vi) The average radium-226 concentration, in pCi/g, of the phosphogypsum, as determined pursuant to §61.207; and

(vii) The signature of the person who prepared the certification.

(2) The owner or operator shall retain the certification document for five years from the date of sale or transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized representative. The owner or operator shall also provide a copy of the certification document to the purchaser or recipient.

(b) (1) Each distributor, retailer, or reseller who purchases or receives phosphogypsum for subsequent resale or transfer shall prepare a certification document for each quantity of phosphogypsum which is resold or transferred which includes:

(i) The name and address of the distributor, retailer, or reseller;

(ii) The name and address of the purchaser or recipient of the phosphogypsum;

(iii) The quantity (in pounds) of phosphogypsum resold or transferred;

(iv) The date of resale or transfer;

(v) A description of the intended end-use for the phosphogypsum;

(vi) A copy of each certification document which accompanied the phosphogypsum at the time it was purchased or received by the distributor, retailer, or reseller; and

(vii) The signature of the person who prepared the certification.

(2) The distributor, retailer, or reseller shall retain the certification document for five years from the date of resale or transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized representative. For every resale or transfer of phosphogypsum to a person other than an agricultural end-user, the distributor, retailer, or reseller shall also provide a copy of the certification document to the purchaser or transferee.

§61.209 Required records.

(a) Each owner or operator of a phosphogypsum stack must maintain records for each stack documenting the procedure used to verify compliance with the flux standard in 61.202, including all measurements, calculations, and analytical methods on which input parameters were based. The required documentation shall be sufficient to allow an independent auditor to verify the correctness of the determination made concerning compliance of the stack with flux standard.

(b) Each owner or operator of a phosphogypsum stack must maintain records documenting the procedure used to determine average radium-226 concentration pursuant to §61.207, including all measurements, calculations, and analytical methods on which input parameters were based. The required documentation shall be sufficient to allow an independent auditor to verify the accuracy of the radium-226 concentration.

(c) Each facility which uses phosphogypsum pursuant to §61.205 or §61.206 shall prepare records which include the following information:

(1) The name and address of the person in charge of the activity involving use of phosphogypsum.

(2) A description of each use of phosphogypsum, including the handling and processing that the phosphogypsum underwent.

(3) The location of each site where each use of phosphogypsum occurred, including the suite and/or building number, street, city, county, state, and zip code.

(4) The mailing address of each facility using phosphogypsum, if different from paragraph (c)(3) of this section.

(5) The date of each use of phosphogypsum.

(6) The quantity of phosphogypsum used.

(7) The certified average concentration of radium-226 for the phosphogypsum which was used.

(8) A description of all measures taken to prevent the uncontrolled release of phosphogypsum into the environment.

(9) A description of the disposition of any unused phosphogypsum.

(d) These records shall be retained by the facility for at least five years from the date of use of the phosphogypsum and shall be produced for inspection upon request by the Administrator, or his authorized representative.

§61.210 Exemption from the reporting and testing requirements of 40 CFR 61.10.

All facilities designated under this subpart are exempt from the reporting requirements of 40 CFR 61.10.

Section III. Emissions Unit(s) and Conditions (continued).
Subsection J. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-054	No. 3 Sulfuric Acid Plant

This emission unit is a double absorption sulfuric acid plant at a phosphate fertilizer facility. This plant is designed to produce a maximum of 1,700 tons per day of sulfuric acid (100% H_2SO_4 basis). Sulfur is burned in air first dried by passing through concentrated sulfuric acid in a drying tower. The resulting sulfur dioxide passes through converter units w/catalyst, through an intermediate absorption tower, through a final converter w/catalyst, and then through a final absorption tower (double absorption). Acid mist emissions from the final absorption tower are controlled by a Brink HV Demister. Waste heat from the process is also used to cogenerate electric power.

This emission unit is regulated under 40 CFR 60, Subpart H (standards of performance for sulfuric acid plants,) as adopted by reference in Rule 62-204.800(7), F.A.C.

This emission unit is subject to the following specific conditions:

Essential Potential to Emit (PTE) Parameters

J.1. Capacity. Sulfuric acid production, measured as 100% H_2S0_4, shall not exceed 1,700 tons per day .
[Construction Permit AC53-85261 and Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

J.2. Sulfur Dioxide. Sulfur dioxide emissions shall not exceed the lesser of:
A. 4 pounds per ton of 100% sulfuric acid produced; or
B. 283.3 pounds per hour.
[Rule 62-296.402(2), F.A.C., and 40 CFR 60.82(a)]

J.3. Acid Mist. Acid mist emissions shall not exceed the lesser of:
A. 0.15 pounds per ton of 100% H_2S0_4 produced; or
B. 10.6 pounds per hour.
[Rule 62-296.402(2), F.A.C. , and 40 CFR 60.83(a)(1)]

J.4. Visible Emissions . Visible emissions shall not be equal to or greater than 10% opacity.
[40 CFR 60.83(a)(2)]

J.5. 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 (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(1), F.A.C.]

J.6. 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(4), F.A.C.]

J.7. In case of excess emissions resulting from a malfunction, the permittee shall immediately notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection 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(6), F.A.C.]

Test Methods and Procedures

J.8. The following EPA/DEP test methods are approved for demonstration of compliance with the above emission limitations and standards:

Method 1	Sample and velocity traverses for stationary sources;
Method 2	Determination of stack gas velocity and volumetric flow rate (Type S pitot tube);
Method 3	Gas analysis for carbon dioxide, oxygen, excess air, and dry molecular weight;
Method 8	Determination of sulfuric acid mist and sulfur dioxide emissions from stationary sources; and
Method 9	Visual determination of the opacity of emissions from stationary sources.

[40 CFR 60, Appendix A, incorporated by reference in Chapter 62-297, F.A.C., and Rule 62-296.402(3)(b), F.A.C.]

J.9. Test the emissions for the following pollutant(s) annually. Submit a copy of the test data to the Air Section of the Department's Southwest District Office within 45 days of such testing:

(X) Sulfur Dioxide (X) Sulfuric Acid Mist (X) Opacity

The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rule 62-297.310, F.A.C. and 40 CFR 60, Appendix A.
[Rules 62-297.310(7) and 62-297.310(8)(b), F.A.C.]

J.10. Compliance with the visible emission limitation shall be demonstrated using Method 9 as specified in Rule 62-297.402(3), F.A.C. The visible emissions test shall be conducted by a certified observer and be a minimum of sixty (60) minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rule 62-297.310(4)(a)2., F.A.C.]

J.11. Excess emissions resulting from startup, shutdown or malfunction are permitted providing: (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions are minimized. 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. In case of excess emissions resulting from malfunctions, the permittee shall notify the Department. A full written report on the malfunction(s) shall be submitted in a quarterly report, if requested by the Department.
[Rules 62-4.070(3), 62-210.700(1), 62-210.700(4), 62-210.700(6), and 62-4.130, F.A.C.]

Continuous Monitoring Requirements

J.12. The continuous emission monitoring system for the measurement and recording of stack sulfur dioxide concentration shall:

(a) Be calibrated, maintained and operated as specified in 40 CFR 60.84, with the exception that monitor span value shall be set at 1,000 ppm* sulfur dioxide;
(b) Perform zero and span calibration at least daily as required by 40 CFR 60.13;
(c) As specified in 40 CFR 60.13(e), be in continuous recording operation (regardless of plant downtime); and,
(d) Demonstrate compliance with 40 CFR 60, Appendix B, Performance Specification 2, upon replacement or modification of the monitor, or at the request of the Department pursuant to 40 CFR 60.13(c).

* Letter of June 19, 1986

Training Requirements

J.13. Plant personnel and operators shall be familiar with best operational practices in order to (1) minimize emissions during plant shutdown and cold and hot plant startup; and, (2) to minimize the duration of excess emissions.
[Rule 62-4.070, F.A.C.]

Recordkeeping and Reporting Requirements

J.14. Data acquisition, data reduction, records and reporting requirements for the sulfur dioxide continuous emission monitor shall conform with 40 CFR 51, Appendix P, as adopted by reference in Rule 62-204.800(2), F.A.C.

J.15. The permittee shall submit a written report of excess sulfur dioxide emissions for every calendar quarter in-accordance with 40 CFR 60.7(c). Periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standard under 40 CFR 60.82. Two copies of the quarterly sulfur dioxide excess emission report shall be submitted to the Department's Southwest District Office in Tampa.
[Rule 62-296.402(4), F..A.C. and 40 CFR 60.84(e).]

J.16. This permit acknowledges that leaks of sulfur dioxide and sulfur trioxide, or other fugitive process emissions that do not pass through a stack, may occur as part of routine operations. Best operational practices to minimize these emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions. [Rule 62-213.440(1)(b), F.A.C.]

Operational Procedures

J.17. Not federally enforceable. The permittee shall follow the *MEMORANDUM OF UNDERSTANDING REGARDING BEST OPERATIONAL START-UP PRACTICES FOR SULFURIC ACID PLANTS.*
[Signed and Executed on October 25, 1989, Amended September 18, 2003, Rules 62-4.070(3) and 62-210.700(1), F.A.C.]

Not federally enforceable.

MEMORANDUM OF UNDERSTANDING
REGARDING BEST OPERATIONAL START-UP PRACTICES
FOR SULFURIC ACID PLANTS

These Sulfuric Acid Plant Best Operation Start-Up Practices will be made available in the control room at all times.

1. Only one sulfuric acid plant at a facility should be started up and burning sulfur at a time, There are times when it will be acceptable for more than one sulfuric acid plant to be in the start-up mode at the same time, provided the following condition is met. It is not acceptable to initiate sulfur burning at one sulfuric acid plant when another plant at the same facility is emitting SO_2 at a rate in excess of the emission limits imposed by the permit or rule, as determined by the CEMs emission rates for the immediately preceding 20 minutes. Due to the distance (approximately 2.5 miles) between plants, the #3 Sulfuric Acid Plant (SAP) may be started up and initiate sulfur burning regardless of the start up status of the No. 4, 5, or 6 Sulfuric Acid Plants.

2. A plant start-up must be at the lowest practicable operating rate, not to exceed 70 percent of the designated operating rate, until the SO_2 monitor indicates compliance, Because production rate is difficult to measure during start-up, if a more appropriate indicator (such as blower pressure, furnace temperature, gas strength, blower speed, number of sulfur guns operating, etc.) can be documented, tested and validated, the Department will accept this in lieu of directly documenting the operating rate. Implementation requires the development of a suitable list of surrogate parameters to demonstrate and document the reduced operating rate on a plant-by-plant basis. Documentation that the plant is conducting start-up at the reduced rate is the responsibility of the owner or operator.

3. Sulfuric acid plants are authorized to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices, in accordance with this agreement, to minimize emissions are followed. No plant shall be operated (with sulfur as fuel) out of compliance for more than three consecutive hours, Thereafter, the plant shall be shut down, The plant shall be shut down (cease burning sulfur) if, as indicated by the continuous emission monitoring system, the plant is not in compliance within three hours of start-up, Restart may occur as soon as practicable following any needed repairs or adjustments, provided the corrective action is taken and properly documented.

4. Cold Start-Up Procedures.

a. Converter.

(1) The inlet and outlet temperature at the first two masses of catalyst shall be sufficiently high to provide immediate ignition when SO_2 enters the masses, In no event shall the inlet temperature to the first mass be less than 800°F or the outlet temperature to the first two masses be less than 700°F. These temperatures are the desired temperatures at the time the use of auxiliary fuel is terminated.

(2) The gas stream entering the converter shall contain SO_2 at a level less than normal, and sufficiently low to promote catalytic conversion to SO_3.

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved. In no event shall the concentration be less than 96 percent H_2SO_4.

5. Warm Restart.

a. Converter.

The inlet and outlet temperatures of the first two catalyst masses should be sufficiently high to ensure conversion. one of the following three conditions must be met:

(1) The first two catalyst masses inlet and outlet temperatures must be at a minimum of 700°F; or

(2) Two of the four inlet and outlet temperatures must be greater than or equal to 800°F; or

(3) The inlet temperature of the first catalyst must be greater than or equal to 600°F and the outlet temperature greater than or equal to 800°F. Also, the inlet and outlet temperatures of the second catalyst must be greater than or equal to 700°F.

Failure to meet one of the above conditions, requires use of cold start-up procedures.

To allow for technological improvements or individual plant conditions, alternative conditions will be considered by the Department in appropriate cases.

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved, In no event shall the concentration be less than 96 percent H_2SO_4.

6. Prevention of Ammonium Sulfate Cloud Formation at the No. 3 Sulfuric Acid Plant

a. Water treatment sprays will be shut down prior to plant start ups, and will remain down until startup is completed and the plant is operating normally.

b. If a plant upset condition occurs, the water treatment sprays will be shut down during the entire duration of the upset condition.

c. Operations logs at the sulfuric acid control room and the lime plant will include notation for the date and time of notification (and operator's initials or signature) of startup or upset conditions that would prompt water treatment spray shutdown.

Due to the distance between plants, No. 3 Sulfuric Acid Plant may be started up and initiate sulfur burning independent of start up status of No. 4, 5, and 6 Sulfuric Acid Plants.

Section III. Emissions Unit(s) and Conditions (Continued).

Subsection K. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-055	Auxiliary Process Steam Boiler

For the operation of a Nebraska Model NS-E-65 Process Steam Boiler. This boiler shall be fired with natural gas as the primary fuel with new No. 2 fuel oil as backup during natural gas curtailment. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5% by weight. The maximum fuel consumption rate while firing natural gas is 93,200 cubic feet/hour and while firing new No. 2 fuel oil is 625.0 gallons/hour. This boiler is equipped with a stack economizer.

This Emissions Unit is subject to the requirements of 40 CFR 60, Subpart Dc (NSPS). In order to avoid some requirements of NSPS, the Boiler shall operate in accordance with requirements of the BACT (Best Available Control Technology) determination for particulate matter and sulfur dioxide dated November 3, 1993, and construction permit AC53-234449. [Rule 62-296.406(2) & (3), F.A.C]

This emission unit is subject to the following specific conditions:

Essential Potential to Emit (PTE) Parameters

K.1. Capacity. The Auxiliary Boiler produces 75,000 pound/hour of steam from a maximum heat input of 93.2 MMBtu/hour natural gas or 89.8 MMBtu/hour #2 fuel oil.
[Permit AO53-249982 and Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

K.2. Methods of Operation. The following operation limitations have been established for this process steam boiler:

A. The process steam boiler shall be fired on natural gas as primary fuel with new* No. 2 fuel oil as backup fuel, during natural gas curtailment.
B. The maximum sulfur content of the new No. 2 fuel oil shall not exceed 0.5% by weight.
C. The maximum heat input rate, fuel usage rate and hours of operation for this process steam boiler is as follows:

1. 93.2 MMBTU/hour, Natural gas
   89.8 MMBTU/hour, new No. 2 fuel oil
2. 93,200 cubic feet/hour, natural gas
   625.0 gallons/hour new No. 2 fuel oil
3. 8,760 hours/year, natural gas
   400.0 hours/year, new No. 2 fuel oil

* The term "new" oil means an oil that has been refined from crude oil and has not been used and which may or may not contain additives.
[Rules 62-296.406(2) and (3), and permit AC53-234449]

Emission Limitations and Standards

K.3. Sulfur Dioxide. In accordance with 40 CFR 60.42c(d) and Rule 62-204.800, F.A.C., no owner or operator of an affected boiler that combusts oil shall cause to be discharged into the atmosphere from that affected boiler any gases that contain S02 in excess of 0.50 pound/MMBTU heat input; or, as an alternative, no owner or operator of an affected boiler that combusts oil shall combust oil in the affected boiler that contains greater than 0.5% sulfur by weight.

K.4. Visible Emissions. Visible emissions shall not exceed 20% opacity except for one six-minute period per hour during which opacity shall not exceed 27%. [Rule 62-296.406(1), F.A.C.]

K.5. 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 (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(1), F.A.C.]

K.6. 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(4), F.A.C.]

K.7. In case of excess emissions resulting from a malfunction, the permittee shall immediately notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection 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(6), F.A.C.]

Test Methods and Procedures

K.8. The process steam boiler shall be tested annually for visible emissions. A copy of the compliance test data shall be submitted to the Air Section of the Department's Southwest District Office within 45 days of such testing. The following EPA test methods are approved for demonstration of compliance with the above emission limitations and standards:

Method 9. Visual determination of the opacity of emissions from stationary sources;
Method 6B. Determination of sulfur dioxide and carbon dioxide daily average emissions from fossil fuel combustion sources.;
ASTM D 129-91. Standard Test Method for Sulfur in Petroleum Products (General Bomb Method).;
ASTM D 2622-94. Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry.; and
ASTM D 4294-90. Standard Test Method for Sulfur in Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectroscopy.
[Rule 62-297.440, F.A.C.]

K.9. The visible emissions compliance test shall be conducted by a certified observer and be a minimum of 30 minutes in duration. The visible emissions (VE) compliance test could be waived, on a year by year basis, if liquid and/or solid fuel has not been used in this boiler for more than 400 hours for the previous 12 months and if it is not expected to be used in this boiler for more than 400 hours during the next 12 months. Each year, when the VE test is due, a letter must be sent to this office stating that the

above criteria for the waiver have been satisfied. [Rules 62-297.310(7)(a)5., and 62-297.310(4)(a)2., F.A.C.]

Monitoring, Recordkeeping, and Reporting Requirements

K.10. In accordance with 40 CFR 60.48c(e), the owner or operator of each affected boiler subject to the S02 emission limits or fuel oil sulfur limits requirements of 40 CFR 60.42c shall keep records and submit quarterly reports as required under 40 CFR 60.48c(d) including the applicable information under 40 CFR 60.48c(e)(f)(g)(h) & (i).

K.11. In order to document continuing compliance with Condition No. K.2., records of the sulfur content, in % by weight of fuel oil used, shall be maintained based on either vendor provided as-shipped analysis for each shipment received during the use of oil in the boiler, or on analysis of as-received samples taken at the plant during oil usage.

Section III. Emissions Unit(s) and Conditions (Continued).
Subsection L. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-056	Molten Sulfur Storage/Handling--Truck Delivery Pit
-057	Molten Sulfur Storage/Handling--Storage Tank, North Vent
-058	Molten Sulfur Storage/Handling--Storage Tank, Southeast Vent
-059	Molten Sulfur Storage/Handling--Storage Tank, Southwest Vent
-060	Molten Sulfur Storage/Handling--Storage Tank, Middle Vent

Molten sulfur is delivered by tank truck and unloaded by gravity into the truck pit. Pumps in the pit forward the liquid to storage tanks. Emissions of particulates are controlled by pit covers. The four storage tank vents are uncontrolled.

This emission unit is subject to Rule 62-296.411, F.A.C., Sulfur Storage and Handling Facilities:

Essential Potential to Emit (PTE) Parameters

L.1. Capacity. The maximum sulfur throughput rate shall not exceed 555 tons/day or 203,000 tons/year. [AO53-173754, J. Koogler letter dated 9/25/98, and Rules 62-4.160(2) and 62-210.200, F.A.C.]

L.2. Methods of Operation. All molten sulfur facilities shall employ, as a minimum, the following practices to minimize the emission of sulfur particulate matter into the atmosphere:

A. All molten sulfur transfer shall be through enclosed piping systems where feasible and practical. In user facilities, molten sulfur may be transferred by covered trench or a movable spout which is positioned over a receiving pit. Contact surfaces between movable unloading arms and stationary pipes shall seat effectively around the entire circumference to minimize spillage.

B. All areas surrounding points where molten sulfur pipes are routinely disconnected and areas where molten sulfur is transferred to trucks or railcars shall be paved and curbed within 20 feet of the point of disconnection or transfer to contain any spilled molten sulfur, or shall be provided with noncorrosible drip pans or other secondary containment, positioned to collect spills, that are adequate to contain amounts of sulfur that may escape during routine disconnection, reconnection or operation of the piping system.

C. Emissions of sulfur particulate matter from molten sulfur storage tanks and transfer systems in particulate matter air quality maintenance areas or within five kilometers of such areas shall not exceed 0.03 pounds per hour per thousand tons of storage capacity.

D. All spilled molten sulfur shall be collected and properly disposed of whenever the containment area is filled to one-half its containment capacity, or monthly, whichever is more frequent. Spills of molten sulfur outside of a containment area, or where subject to vehicular traffic, shall be collected and disposed of as soon as possible, but no later than 24 hours after the spill occurs. Drip pans or other secondary containment shall be cleaned as needed to prevent exceedance of capacity, but at least weekly.

E. All vent surfaces shall be cleaned monthly to remove captured particles.
[Rule 62-296.411, F.A.C.]

Emission Limitations and Standards

L.3. Visible emissions shall not be equal to or greater than 20% opacity, in accordance with Rule 62-296.411(1)(g), F.A.C.

{Permitting Note: The total emissions of sulfur particulate from the two pits are estimated to be 148 lbs/yr. The emissions of other pollutants from the pits are negligible. The Permittee stated that no hydrocarbon emissions are expected from the facility because the sulfur received at the facility is bright sulfur. The basis used for calculating emissions is the maximum permitted sulfur throughput rate.}

Test Methods and Procedures

L.4. The following EPA test methods are approved for demonstration of compliance with the above emission limitations and standards:

(X) Opacity

Method 9 Visual determination of the opacity of emissions from stationary sources
[40 CFR 60, Appendix A, incorporated by reference in Rule 62-297, F.A.C.]

L.5. The visible emissions test of each delivery pit and tank vent shall be conducted prior to application to renew this permit by a certified observer and be a minimum of thirty (30) minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rule 62-297.310(4)(a)2., F.A.C.]

Recordkeeping and Reporting Requirements

L.6. In order to demonstrate compliance with Condition No. L.1., the Permittee shall maintain records of sulfur throughput for the most recent 12 consecutive-month period.
[Rule 62-213.440(1)(b), F.A.C.]

L.7. The permittee shall maintain records of spills outside of containment areas and of collection and disposal of spilled sulfur. Such records shall be retained for a minimum of five (5) years and shall be available for inspection by the Department upon request.
[Rule 62-296.411, F.A.C.]

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)	Bartow Facility
	)	
Cargill Fertilizer, Inc.	)	
	)	
Petitioner.	)	File No.: 03-C-AP

ORDER ON REQUEST
FOR
ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), and Title 40 of the Code of Federal Regulations Part 63, section 63.8 (40 CFR 63.8), Cargill Fertilizer, Inc., located in Polk County, has petitioned for approval of alternate monitoring methods for scrubbers at the Bartow facility. The Petitioner requested approval to monitor fan amperage in lieu of establishing an upper limit on pressure drop across each scrubber. The basis for this request is the Petitioner's assertion that certain technical aspects would make limiting pressure drop in the scrubbers at this facility impractical. Petitioner agreed to continue to monitor pressure drop, liquid flow rate, and fan amperage for each scrubber. Petitioner also agreed to establish allowable ranges for liquid flow rate and fan amperage and to establish a minimum allowable pressure drop.

Having considered Petitioner's written request and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. 40 CFR 63, Subparts AA and BB require all phosphate fertilizer and phosphoric acid manufacturing plants that are major sources of hazardous air pollutants to monitor liquid flow rate to each scrubber and pressure drop across each scrubber used to control hydrogen fluoride emissions. Additionally, each affected facility must establish allowable ranges for these parameters by submitting upper and lower values for approval or by accepting the default range of ±20% of the baseline value as specified in Subparts AA and BB. Petitioner's Bartow facility is a major source of hazardous air pollutants. Specifically, Petitioner's Bartow facility emits 10 tons per year or more of HF. Therefore, Petitioner's Bartow facility is subject to these requirements.

2. On February 10, 2003, the Department received Petitioner's request for approval of an alternate monitoring plan for the Bartow facility. The alternate monitoring plan was requested for scrubbers subject to 40 CFR 63, Subparts AA and BB: Phosphoric Acid Plant (Emission Unit (EU) 010), No. 3 Fertilizer Plant (EU 001), and No. 4 Fertilizer Plant (EU 021).

3. On March 10, 2003, the Department requested additional information from Petitioner.

4. On May 12, 2003, the Department received Petitioner's response to the March 10, 2003 request for additional information.

5. On July 1, 2003, the Department sent a second request for additional information to Petitioner.

6. On August 20, 2003, Department staff met with representatives of Petitioner and Petitioner's consultant, Golder Associates, in Tallahassee to discuss unresolved issues.

7. On October 28, 2003, the Department received Petitioner's response to the second request for additional information as well as information requested during the August 20 meeting.

8. On November 4, 2003, Department staff met with representatives of Petitioner and Golder Associates at the Petitioner's Riverview facility to discuss remaining issues with the Petitioner's request. During that meeting, Petitioner agreed to provide the department with additional data.

9. On December 3, 2003, the Department received the additional information requested during the November 4 meeting.

10. Data submitted by Petitioner demonstrates that typical pressure drops across its scrubbers can vary by more than the ±20% range allowed by 40 CFR 63, Subparts AA and BB.

11. Emissions data submitted by Petitioner demonstrates that fluoride emissions rates for most units at the facility are less than 50% of the standard. Data submitted by Petitioner also shows a poor correlation between pressure drop and fluoride emissions.

12. As a result of the correspondence and meetings listed above, Petitioner ultimately proposed to establish an allowable range for fan amperage in lieu of establishing an upper limit on pressure drop across each scrubber. Petitioner also agreed to establish a minimum allowable pressure drop for each scrubber and an allowable range for liquid flow rate to each scrubber.

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), Rule 62-297.620, F.A.C., and 40 CFR 63.8.

2. Petitioner has provided reasonable justification that establishing an upper limit on pressure drop in scrubbers at this facility is impractical due to the wide variability of this parameter encountered during normal operation.

3. Petitioner has provided reasonable justification that monitoring fan amperage in lieu of establishing a maximum pressure drop is no less an effective indicator of scrubber operation than that achieved by monitoring pursuant to 40 CFR 63, Subparts AA and BB.

ORDER

Having considered Petitioner's written request and supporting documentation, it is hereby ordered that for the Phosphoric Acid Plant (Emission Unit (EU) 010), No. 3 Fertilizer Plant (EU 001), and No. 4 Fertilizer Plant (EU 021):

1. Petitioner shall not be required to establish an upper limit on the pressure drop across each scrubber.

2. Petitioner shall establish a minimum allowable pressure drop across each scrubber pursuant to the requirements in 40 CFR 63, Subparts AA and BB and shall submit such values to the department for approval.

3. Petitioner shall establish minimum and maximum acceptable fan amperages for each fan in the scrubbing systems pursuant to the requirements in 40 CFR 63, Subparts AA and BB and shall submit such values to the department for approval.

4. Petitioner shall establish minimum and maximum acceptable values for liquid flow rate to each scrubber pursuant to the requirements in 40 CFR 63, Subparts AA and BB and shall submit such values to the department for approval.

5. Petitioner shall continuously monitor pressure drop and liquid flow rate for each scrubber and shall continuously monitor fan amperage for each fan in the scrubbing systems.

6. Except as provided by this order, Petitioner shall comply with all applicable provisions of 40 CFR 63, Subparts AA and BB.

7. This Order shall expire on January 7, 2014.

PETITION FOR ADMINISTRATIVE REVIEW

The Department's proposed agency action will become final upon expiration of the petition period described below unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed agency action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within twenty-one days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

NOTICE OF APPEAL RIGHTS

Any party to this 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.

DONE AND ORDERED this _____ day of _____, 2004 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

MICHAEL G. COOKE, Director
Division of Air Resource Management
Mail Station 5500
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 488-0114

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) (Date)

Not federally enforceable. **Attachment A**

MEMORANDUM OF UNDERSTANDING
REGARDING BEST OPERATIONAL START-UP PRACTICES
FOR SULFURIC ACID PLANTS

These Sulfuric Acid Plant Best Operation Start-Up Practices will be made available in the control room at all times.

1. Only one sulfuric acid plant at a facility should be started up and burning sulfur at a time, There are times when it will be acceptable for more than one sulfuric acid plant to be in the start-up mode at the same time, provided the following condition is met. It is not acceptable to initiate sulfur burning at one sulfuric acid plant when another plant at the same facility is emitting SO_2 at a rate in excess of the emission limits imposed by the permit or rule, as determined by the CEMs emission rates for the immediately preceding 20 minutes.

2. A plant start-up must be at the lowest practicable operating rate, not to exceed 70 percent of the designated operating rate, until the SO_2 monitor indicates compliance, Because production rate is difficult to measure during start-up, if a more appropriate indicator (such as blower pressure, furnace temperature, gas strength, blower speed, number of sulfur guns operating, etc.) can be documented, tested and validated, the Department will accept this in lieu of directly documenting the operating rate. Implementation requires the development of a suitable list of surrogate parameters to demonstrate and document the reduced operating rate on a plant-by-plant basis. Documentation that the plant is conducting start-up at the reduced rate is the responsibility of the owner or operator.

3. Sulfuric acid plants are authorized to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices, in accordance with this agreement, to minimize emissions are followed. No plant shall be operated (with sulfur as fuel) out of compliance for more than three consecutive hours, Thereafter, the plant shall be shut down, The plant shall be shut down (cease burning sulfur) if, as indicated by the continuous emission monitoring system, the plant is not in compliance within three hours of start-up, Restart may occur as soon as practicable following any needed repairs or adjustments, provided the corrective action is taken and properly documented.

4. Cold Start-Up Procedures.

a. Converter.

(1) The inlet and outlet temperature at the first two masses of catalyst shall be sufficiently high to provide immediate ignition when SO_2 enters the masses, In no event shall the inlet temperature to the first mass be less than 800°F or the outlet temperature to the first two masses be less than 700°F. These temperatures are the desired temperatures at the time the use of auxiliary fuel is terminated.

(2) The gas stream entering the converter shall contain SO_2 at a level less than normal, and sufficiently low to promote catalytic conversion to SO_3.

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved. In no event shall the concentration be less than 96 percent H_2SO_4.

5. Warm Restart.

a. Converter.

The inlet and outlet temperatures of the first two catalyst masses should be sufficiently high to ensure conversion. one of the following three conditions must be met:

(1) The first two catalyst masses inlet and outlet temperatures must be at a minimum of 700°F; or

(2) Two of the four inlet and outlet temperatures must be greater than or equal to 800°F; or

(3) The inlet temperature of the first catalyst must be greater than or equal to 600°F and the outlet temperature greater than or equal to 800°F. Also, the inlet and outlet temperatures of the second catalyst must be greater than or equal to 700°F.

Failure to meet one of the above conditions, requires use of cold start-up procedures.

To allow for technological improvements or individual plant conditions, alternative conditions will be considered by the Department in appropriate cases.

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved, In no event shall the concentration be less than 96 percent H_2SO_4.

6. Prevention of Reoccurrence for an Ammonium Sulfate Cloud

a. Water treatment sprays will be shut down prior to plant start ups, and will remain down until startup is completed and the plant is operating normally.

b. If a plant upset condition occurs, the water treatment sprays will be shut down during the entire duration of the upset condition.

c. Operations logs at the sulfuric acid control room and the lime plant will include notation for the date and time of notification (and operator's initials or signature) of startup or upset conditions that would prompt water treatment spray shutdown.

Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No.: 1050046-018-AV
Facility ID No.: 1050046

Unregulated Emissions Units and/or Activities. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

E.U. ID No.	Brief Description of Emissions Units and/or Activity
	Fertilizer Plants
-053	Screens, lump crushers, chain mills, grinding mills, conveyor belts
-053	Reclaim Elevator, seed hopper and elevator
-053	Pond water sumps
-053	Ammonia chillers
-053	Product Recovery Units
-053	Phosphoric acid truck unloading
-053	Process storage tanks and product storage buildings/area
-053	Cooling towers and process water pond
	Shipping Plants
-053	Covered conveyor, surge bin, product screens, scale belt, chute to rail car
	Molten Sulfur Handling
-053	Truck/rail unloading area
-053	Molten sulfur storage tank fires
	Sulfuric Acid Plants
-053	Hot water reuse tank
-053	Economizers
-053	Water reuse, uncontaminated water storage, condensate tanks for Evaporators
-053	Auxiliary power diesel generators
-053	Auxiliary power generator diesel tank
-053	Storage tanks
-053	Sulfuric acid truck loading
	Phosphoric Acid Plants
-053	Fluosilicic acid truck loading
-053	Wet rock hoppers and grinding mills
-053	Flash cooler hotwells
-053	Process and product storage tanks
-053	3, 4, 5 Filters (unevacuated area)
-053	Unpermitted crossflow packed scrubbers
-053	Flash coolers, vacuum pumps, seal pumps, seal tanks
-053	Lamellas
-053	Phosphoric acid truck unloading/loading -- North Unit and South Units
	Wet Rock Handling

E.U. ID No.	Brief Description of Emissions Units and/or Activity
-053	Train/truck unloading, hoppers, conveyors, wet rock stacking on pile
	Ammonia Handling
-053	Pipeline, truck unloading, bullets, pop off valves, and flare
	Facilitywide
-053	Safety kleen solvent cleaners
-053	Supersucker
-053	Sand blasters, welding equipment, compressors, wood shop, metal shop
-053	Refrigerators < 50 lbs of refrigerant
-053	Storage tanks and dispensers
-053	Wastewater plants (2), drinking water treatment area
-053	Laboratory and vents, pressure relief valves
-053	Lime silo with baghouse
-053	Turbogenerators (TG1 + TG2)
-053	Laboratory vacuum pump, space heaters
-053	#1 Deepwell diesel tank and backup engine
-053	Locomotive engines
-053	South stack diesel tank
-053	Minor fugitive leaks from process equipment
-053	Steam relief valves—plantwide
-061	Waste Heat Boiler/Flash Tank Discharge
-062	Tank Truck Loading/Unloading of Sulfuric Acid
-063	Industrial Cooling Towers
-064	Process and Product Storage Tanks
-065	Auxiliary Power Generators and Diesel Fuel Tanks
-066	Molten Sulfur Fire and Spill Cleanup
-067	VOC From Solvent Cleaning of Small Parts
-068	Welding, Grinding, and Cutting Metal from Maintenance Vehicles
-069	Fugitive Dust/Exhaust Emissions From Maintenance Vehicles
-070	Miscellaneous Painting and Relining Rubber-Lined Vessels
-071	Vehicle Fleet Fuel Storage Tanks
-072	Sulfuric Acid Plant Catalyst Removal and Classifying

Appendix H-1, Permit History/ID Number Changes

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No.: 1050046-018-AV
Facility ID No.: 1050046

Permit History (for tracking purposes):

E.U. ID No.	Description	Permit No.	Issue Date	Expiration Date	ExtendeDate[1, 2]	Revised Date(s)
-001	Ammonium Phosphate Fertilizer Plant	AC53-5028	04/30/76	11/30/76		
		AC53-5110	01/04/77	12/30/77		
		AC53-6017	03/27/78	08/30/78		
		AC53-42443	08/04/81	12/31/82	8/27/81	
		AO53-169781	12/22/89	12/22/94		
		1050046-022-AC				
-002	No. 4 Fertilizer Shipping Plant	AC53-36672	02/25/81	10/01/82		
		AO53-167640	09/26/89	09/26/94		
		AC53-239194	04/01/94	12/31/94	08/31/96	
-004	No. 3 Fertilizer Shipping Plant	AO53-185367	09/18/90	09/18/95		
		Amendment	10/13/93	09/18/95		
		Amendment	11/10/94	09/18/95		
-010	No. 4 Phosphoric Acid Plant	AO53-167775	11/15/89	10/14/94		
		Amendment	01/20/94	10/14/94		
		AC53-253092	10/06/94	12/15/96		
		AC53-262532/ PSD-FL-224	08/24/95	12/31/97		

Notes:
1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}
Not included in this table: Operating permits issued prior to 1988, ownership transfers, and construction permit time extensions for expired construction permits.

-012, 032, 033	Nos. 4, 5, and 6 Sulfuric Acid Plant	AO53-167885	10/19/89	10/13/94	
		Amendment	07/02/92	10/13/94	
		AC53-216288/ PSD-FL-191	01/05/92	01/01/94	04/01/94
		AO53-243295	05/10/94	05/09/99	
		AC53-271436/ PSD-FL-229	11/16/95	10/31/98	
-021	Diammonium Phosphate Fertilizer Plant	AC53-24460	07/03/80	12/31/82	06/30/82
		Amendment	11/17/82	12/31/82	
		AO53-82350	09/21/84	09/14/89	
		Amendment	05/10/88	09/14/89	
		AO53-167639	11/16/89	10/1794	
		AC53-246403/ PSD-Fl-211	11/21/94	06/02/95	
-034	No. 5 Phosphoric Acid Plant	AC53-2650	07/22/75	02/15/77	
		AC53-173936	04/03/90	09/01/90	
		AO53-185774	11/09/90	11/09/95	
		AO53-185774A	08/31/94	11/09/95	
		AC53-262532/ PSD-FL-224	08/24/95	12/31/97	

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

Not included in this table: Operating permits issued prior to 1988, ownership transfers, and construction permit time extensions for expired construction permits.

Appendix H-1, Permit History/ID Number Changes

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No.: 1050046-018-AV
Facility ID No.: 1050046

-045, 046, 047, 048 049, 050	Molten Sulfur Unloading Storage and Handling System	AC53-174175	08/17/90	01/01/91	
		AO53-188627	01/17/91	01/18/96	
		AC53-216256	08/28/92	08/25/93	02/25/94
		AO53-188627A	12/22/93	01/18/96	
		AC53-271436/ PSD-FL-229	11/16/95	10/31/98	
-051	Cleaver Brooks Package Watertube Boiler	AC53-221062	03/18/93	06/30/93	
		AO53-229393	04/26/93	04/21/98	
-054	Sulfuric Acid Plant	AC53-2584	12/26/74	9/16/75	
		AO53-6050	12/14/78	1/31/83	
		AC53-6458A	8/28/78	8/30/79	
		AO53-17115	3/1/97	2/1/84	
		AO53-78016	1/31/84	1/15/89	
		AC53-85261	7/2/85	7/1/86	
		AO53-117930	9/11/86	8/28/91	
		AO53-198769	8/30/91	8/28/96	
-055	Steam Generator	AC53-234449	12/9/93	11/9/94	
		AO53-249982	6/24/94	6/20/99	

Notes:
1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}
Not included in this table: Operating permits issued prior to 1988, ownership transfers, and construction permit time extensions for expired construction permits.

-056	Molten Sulfur Truck Pit	AC53-163740	9/28/89	4/1/90	
		AO53-173754	4/3/90	4/3/95	7/2/92
-057	Molten Sulfur Tank North	AC53-163740	9/28/89	4/1/90	
		AO53-173754	4/3/90	4/3/95	7/2/92
-058	Molten Sulfur Tank Southeast	AC53-163740	9/28/89	4/1/90	
		AO53-173754	4/3/90	4/3/95	7/2/92
-059	Molten Sulfur Tank Southwest	AC53-163740	9/28/89	4/1/90	
		AO53-173754	4/3/90	4/3/95	7/2/92
-060	Molten Sulfur Tank Mid.	AC53-163740	9/28/89	4/1/90	
		AO53-173754	4/3/90	4/3/95	7/2/92
-All	Revision (EU 001-053)	1050046-016-AV			
	TV Renewal	1050046-018-AV			
	Removal of Conditions	1050046-022-AC			

ID Number Changes (for tracking purposes):

From: **Facility ID No.**: 40TPA530046

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

Not included in this table: Operating permits issued prior to 1988, ownership transfers, and construction permit time extensions for expired construction permits.

Appendix H-1, Permit History/ID Number Changes

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No.: 1050046-018-AV
Facility ID No.: 1050046

To: **Facility ID No.**: 1050046

NOTE: Cargill Mulberry became part of the Cargill Bartow Permit during the renewal process of project 1050046-018-AV. Emissions Units 054-060 were Cargill Mulberry Units Emissions Units which are still in operation and will operate under the current Cargill Bartow Permit. Cargill Fertilizer, Inc. is Now Mosaic Fertilizer, LLC.

For historical purposes, Cargill Mulberry Facility ID #1050048 was formerly Facility ID# 40TPA530048

Notes:

1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

Not included in this table: Operating permits issued prior to 1988, ownership transfers, and construction permit time extensions for expired construction permits.

Table 1-1, Summary of Air Pollutant Standards and Terms

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. Brief Description

-001 Ammonium Phosphate Fertilizer Plant
-002 No. 4 Fertilizer Shipping Plant
-004 No. 3 Fertilizer Shipping Plant
-010 Phosphoric Acid Plant (No. 4 -- V-Train, No. 5 -- U-Train)

				Allowable Emissions			Equivalent Emissions*		Regulatory	See Permit
E.U. ID No.	Pollutant Name	Fuel(s)	Hours/Yr	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Citation(s)	Condition(s)
-001	F (Fluoride)		8,760	0.06 lbs/ton of P_2O_5, 1.8 lb/hr	1.8		1.8	7.9	62-296.403(1), F.A.C./EBA/ 40 CFR 63.622(a)	III. A.3.
	PM		8,760	30.0 lbs/hr, RACT	30.0		30.0	131.4	62-296.700(2)(b), F.A.C./EBA	III. A.4.
	VE	gas/oil	N/A	20% opacity	N/A	N/A	N/A	N/A	62-296.320(4)(b), F.A.C.	III. A.5.
	SO_2	Fuel oil	8,760	2.4% Sulfur by weight			76.9	336.8	62-213.440(1), F.A.C./EBA	III. A.2.
-002	PM		6,000	0.03 grains/dscf			10.54	31.6	AC53-239194 BACT Determination 01/02/81.	III. B.3.
	VE		N/A	20% opacity (scrubber dust control system)	N/A	N/A	N/A	N/A	62-296.320(4)(b), F.A.C. BACT Determination 01/02/81.	III. B.4.
	VE		N/A	5% opacity (dust suppressant)	N/A	N/A	N/A	N/A	AC53-239194/EBA	III. B.5.
-004	PM		6,000	12.0 lbs/hr, 12 tons/yr	12.0	12.0	12.0	12.0	62-296.700(2)(b), F.A.C./EBA	III. C.3.
	VE		N/A	20% opacity	N/A	N/A	N/A	N/A	62-296.320(4)(b), F.A.C.	III. C.4.
	VE		N/A	5% opacity (dust suppressant)	N/A	N/A	N/A	N/A	62-4.070(3), F.A.C./EBA	III. C.5.
-010	F (Fluoride)		8,760	2.04 lbs/hr, 0.012 lb/ton equiv. of P_2O_5	2.04	N/A	2.29	8.93	1050046-013-AC/PSD-FL-295	III. D.2.
	*Prior to the date that the initial performance test is completed per 40 CFR 63, Subpart AA.			0.01 lbs/ton**			1.7	7.4	40 CFR 63.602(b)(1)	III.D.2.
	**On and after the date that the initial performance test is completed per 40 CFR 63, Subpart AA.									

Notes: *The "Equivalent Emissions" listed are for informational purposes only.
N/A: Not Applicable EBA: Established by Applicant

Table 1-1, Summary of Air Pollutant Standards and Terms

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-012 No. 4 Sulfuric Acid Plant

				Allowable Emissions			Equivalent Emissions*		Regulatory	See Permit
E.U. ID No.	Pollutant Name	Fuel(s)	Hours/Yr	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Citation(s)	Condition(s)
-012	VE		N/A	10% opacity	N/A	N/A	N/A	N/A	62-204.800(7)(b)10,F.A.C., 40 CFR 60.83(a)(2)	III.E.2.
	SO_2		8,760	Lesser of 4.0 lbs/ton of 100% acid produced or 433.3 lbs/hr, or 1898 TPY	433.3	1898	433.3	1898	62-204.800(7)(b)10,F.A.C., AC53-271436/PSD-FL-229, 40 CFR 60.82(a)	III. E.3.
	H_2SO_4 Acid Mist		8,760	Lesser of 0.15 lbs/ton of 100% acid produced or 16.25 lbs/hr, or 71.2 TPY	16.25	71.2	16.25	71.2	62-204.800(7)(b)10,F.A.C., AC53-271436/PSD-FL-229, 40 CFR 60.83(a)(1)	III. E.4.
	NO_x		8,760	Lesser of 0.12 lbs/ton of 100% acid produced or 13.0 lbs/hr, or 57.0 TPY	13.0	57.0	13.0	57.0	AC53-271436/PSD-FL-229	III. E.5.

Notes: *The "Equivalent Emissions" listed are for informational purposes only.
N/A: Not Applicable EBA: Established By Applicant

Table 1-1, Summary of Air Pollutant Standards and Terms

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. Brief Description
-032 No. 6 Sulfuric Acid Plant

				Allowable Emissions			Equivalent Emissions*		Regulatory	See Permit
E.U. ID No.	Pollutant Name	Fuel(s)	Hours/Yr	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Citation(s)	Condition(s)
-032	VE		N/A	10% opacity	N/A	N/A	N/A	N/A	62-204.800(7)(b)10,F.A.C., 40 CFR 60.83(a)(2)	III.E.2.
	SO_2		8,760	Lesser of 4.0 lbs/ton of 100% acid produced or 433.3 lbs/hr, or 1898 TPY	433.3	1898	433.3	1898	62-204.800(7)(b)10,F.A.C., AC53-271436/PSD-FL-229, 40 CFR 60.82(a)	III. E.3.
	H_2SO_4 Acid Mist		8,760	Lesser of 0.15 lbs/ton of 100% acid produced or 16.25 lbs/hr, or 71.2 TPY	16.25	71.2	16.25	71.2	62-204.800(7)(b)10,F.A.C., AC53-271436/PSD-FL-229, 40 CFR 60.83(a)(1)	III. E.4.
	NO_x		8,760	Lesser of 0.12 lbs/ton of 100% acid produced or 13.0 lbs/hr, or 57.0 TPY	13.0	57.0	13.0	57.0	AC53-271436/PSD-FL-229	III. E.5.

Notes: *The "Equivalent Emissions" listed are for informational purposes only.
N/A: Not Applicable EBA: Established By Applicant

Table 1-1, Summary of Air Pollutant Standards and Terms

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. Brief Description
-033 No. 5 Sulfuric Acid Plant

				Allowable Emissions			Equivalent Emissions*		Regulatory	See Permit
E.U. ID No.	Pollutant Name	Fuel(s)	Hours/Yr	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Citation(s)	Condition(s)
-033	VE		N/A	10% opacity	N/A	N/A	N/A	N/A	62-204.800(7)(b)10,F.A.C., 40 CFR 60.83(a)(2)	III.E.2.
	SO_2		8,760	Lesser of 4.0 lbs/ton of 100% acid produced or 433.3 lbs/hr, or 1898 TPY	433.3	1898	433.3	1898	62-204.800(7)(b)10,F.A.C., AC53-271436/PSD-FL-229, 40 CFR 60.82(a)	III. E.3.
	H_2SO_4 Acid Mist		8,760	Lesser of 0.15 lbs/ton of 100% acid produced or 16.25 lbs/hr, or 71.2 TPY	16.25	71.2	16.25	71.2	62-204.800(7)(b)10,F.A.C., AC53-271436/PSD-FL-229, 40 CFR 60.83(a)(1)	III. E.4.
	NO_x		8,760	Lesser of 0.12 lbs/ton of 100% acid produced or 13.0 lbs/hr, or 57.0 TPY	13.0	57.0	13.0	57.0	AC53-271436/PSD-FL-229	III. E.5.

Notes: *The "Equivalent Emissions" listed are for informational purposes only.
N/A: Not Applicable EBA: Established By Applicant

Table 1-1, Summary of Air Pollutant Standards and Terms

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-021	Diammonium Phosphate Fertilizer Plant
-045	Molten Sulfur System -- Stack 45 from West 200 molten sulfur pit
-046	Molten Sulfur System -- Vent 44 and 44A from 1,000 ton tank
-047	Molten Sulfur System -- Vent 43, 43A, 43B, 43C and 43D from 3,000 ton tank
-050	Molten Sulfur System -- Stack 47 from East 300 ton molten sulfur pit

				Allowable Emissions			Equivalent Emissions*		Regulatory	See Permit
E.U. ID No.	Pollutant Name	Fuel(s)	Hours/Yr	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Citation(s)	Condition(s)
-021	F (Fluoride)		8,500	0.06 lbs/ton of P_2O_5, 5.50 lb/hr 23.40 TPY	5.50	23.40	5.50	23.40	AC53-246403/PSD-FL-211 40 CFR 60.222 40 CFR 63.622(a)	III. F.4.
	PM		8,500	0.19 lbs/ton of P_2O_5, 22.8 lbs/hr 96.9 TPY	22.8	96.9	22.8	96.9	AC53-246403/PSD-FL-211 BACT Determination 11/21/94	III. F.5.
	VE	gas/oil	N/A	10% opacity	N/A	N/A	N/A	N/A	AC53-246403/PSD-FL-211	III. F.6.
	SO_2	No. 2 fuel oil	8,500	2.4% Sulfur by weight			102.5	37.8	62-213.440(1), F.A.C AC53-246403/PSD-FL-211	III. F.3.
-045, 046 047, 050	VE		N/A	20% opacity	N/A	N/A	N/A	N/A	62-296.411(1)(g), F.A.C.	III. G.2.

Notes: *The "Equivalent Emissions" listed are for informational purposes only.
N/A: Not Applicable EBA: Established by Applicant

Table 1-1, Summary of Air Pollutant Standards and Terms

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-051	Cleaver Brooks Package Watertube Boiler
-054	Double Contact Sulfuric Acid Plant
-055	Steam Generator
-056 to -060	Molten Sulfur Storage/Handling

				Allowable Emissions			Equivalent Emissions*		Regulatory	See Permit
E.U. ID No.	Pollutant Name	Fuel(s)	Hours/Yr	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Citation(s)	Condition(s)
-051	VE	No. 2 Fuel Oil	N/A	20% opacity except 40% for 2 min/hr	N/A	N/A	N/A	N/A	62-296.406(1), F.A.C.	III. H.3.
	SO_2	Oil	8,760	1.5% Sulfur by weight			165.2	33.2	62-296.406(3), F.A.C. AC53-221062	III. H.2.
-054	SO_2	Sulfur	8760	4 lb/ton 100%Acid	283.3	1240.8			62.296.402(2), FAC	III.J.
									62.296.402(2), FAC	III.J.
									62.296.402(2), FAC	III.J.
-055	Opacity	Natural Gas	8760	20% for 6 minute Avg.					62-296.406(1), F.A.C.	III.K.
		#2 Oil	8760	27% for Hour					62-296.406(1), F.A.C.	III.K.
-056 through -060	V.E.	n/a	8760	20%					62-296.411(1)(g)	III.L.

Notes: *The "Equivalent Emissions" listed are for informational purposes only.
N/A: Not Applicable EBA: Established by Applicant

Table 2-1, Summary of Compliance Requirements

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-001	Ammonium Phosphate Fertilizer Plant
-002	No. 4 Fertilizer Shipping Plant

E.U. ID No.	Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See Permit Condition(s)
-001	PM		5	annual	11-November	1 hour		III. A.7. & A.8.
	F (Fluoride)***		13A or 13B	annual	11-November	1 hour		III. A.7. & A.8.
*** Note that for Fluorides only, starting no later than the compliance date of 40 CFR 63, Subpart BB, June 10, 2002, the permittee shall test annually to demonstrate compliance with the applicable emissions standards according to the procedures in 40 CFR 63, Subparts A and BB.								
	VE	Gas/Oil	9	annual	11-November	30 minutes		III. A.7. & A.8.
	SO_2	No. 2 Fuel Oil	fuel analysis, and sampling	annual	11-November			III. A.10.
	Mass flow****							III. A.11.
	Pressure drop****						Yes	III. A.12. & A.14.
	Water flow rate****							III. A.12.
****Note that applicable requirements of 40 CFR Subparts A and BB supercede on or after the date that the initial performance test is completed.								
-002	PM (waivable; see permit conditions B.6 & B.7)		5	annual/ five years	30-June/ 180 days prior to exp. date	1 hour		III. B.6. & B.7.
	VE (no dust supp.)		9	annual	30-June	30 minutes		III. B.6. & B.7.
	VE (dust supp.)		9		30 days of changing dust suppressant	30 minutes		III. B.7. & B.8.
	Pressure drop							III. B.10.
	Water flow rate							III. B.10.
	Scrubber fan amps							

Notes: *Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring system

Table 2-1, Summary of Compliance Requirements

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
-004 No. 3 Fertilizer Shipping Plant
-010 Phosphoric Acid Plant (No. 4 -- V-Train, No. 5 -- U-Train)

E.U. ID No.	Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See Permit Condition(s)
-004	PM (waivable; see permit conditions B.6 & B.7)		5	annual/ five years	6-August/ 180 days prior to exp. date	1 hour		III. C.6. & C.7.
	VE		9	annual	6-August	30 minutes		III. C.6. & C.7.
	VE (dust supp.)				within 30 days of changing dust suppressant	30 minutes		III. C.7. & C.8.
	Pressure drop							III. C.10.
	Water flow rate							III. C.10.
	Scrubber fan amps							III. C.10.
-010	F (Fluoride)***		13A or 13B	annual	25-September	1 hour		III. D.3. & D.4.
*** Note that for Fluorides only, starting no later than the compliance date of 40 CFR 63, Subpart AA, June 10, 2002, the permittee shall test annually to demonstrate compliance with the applicable emissions standards according to the procedures in 40 CFR 63, Subparts A and AA.								
	Pressure drop****						Yes	III. D.6. & D.8.
	Water flow rate****							III. D.6.
	Mass flow****							III. D.7. & D.9.
****Note that applicable requirements of 40 CFR Subparts A and AA supercede on or after the date that the initial performance test is completed.								

Notes: *Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring system

Table 2-1, Summary of Compliance Requirements

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-012	No. 4 Sulfuric Acid Plant
-032	No. 6 Sulfuric Acid Plant
-033	No. 5 Sulfuric Acid Plant
-021	Diammonium Phosphate Fertilizer Plant

E.U. ID No.	Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See Permit Condition(s)
-012, 032, 033	VE		9	annual	28-August	1 hour		III. E.6. & E.8.
	SO_2		8	annual	28-August	1 hour	Yes	III. E.6, E.8, & E.11.
	H_2SO_4 acid mist		8	annual	28-August	1 hour		III. E.6. & E.8.
	NO_x		7E	annual	28-August	1 hour		III. E.7. & E.8.
-021	F (Fluoride)***		13A or 13B	annual	5-August	1 hour		III. F.8. & F.9.
*** Note that for Fluorides only, starting no later than the compliance date of 40 CFR 63, Subpart BB, June 10, 2002, the permittee shall test annually to demonstrate compliance with the applicable emissions standards according to the procedures in 40 CFR 63, Subparts A and BB.								
	PM		5	annual	5-August	1 hour		III. F.8.& F.9.
	VE	Oil/gas	9	annual	5-August	1 hour		III. F.8, F.9., & F.10.
	SO_2	Fuel oil	fuel analysis, and sampling					III. F.11.
	Pressure drop****						Yes	III. F.13. & F.15.
	Water flow rate****							III. F.13.
	Mass flow****							III. F.12. & F.16.
****Note that applicable requirements of 40 CFR Subparts A and BB supercede on or after the date that the initial performance test is completed.								

Notes: *Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring system

Table 2-1, Summary of Compliance Requirements

Mosaic Fertilizer, LLC
Bartow Facility

PROPOSED Permit No. 1050046-018-AV
Facility ID No.: 1050046

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
-054	Double Absorption Sulfuric Acid Plant
-055	Steam Generator
-056	Molten Sulfur Handling Truck Pit
-057	Molten Sulfur Storage & Handling Tank North
-058	Molten Sulfur Storage & Handling Tank Southeast
-059	Molten Sulfur Storage & Handling Tank Southwest
-060	Molten Sulfur Storage & Handling Mid.

E.U. ID No.	Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See Permit Condition(s)
-054	SO_2	Sulfur	Method 8	Annual	June 18	1 hour (40dscf)	Yes	III.J.
	Acid Mist	Sulfur	Method 8	Annual	June 18	1 hour (40dscf)	Yes	III.J.
	V.E.		Method 9	Annual	June 18	1 hour	yes	III.J.
-055	Opacity	Natural Gas	Method 9	Annual	January 18	60 minutes	No	III.K.
		#2 Oil	Method 9	Annual	January 18	60 minutes	No	III.K.
-056 to -060	Opacity	n/a	Method 9	Permit Renewal		30 minutes	No	III.L.

Notes: *Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.
**CMS [=] continuous monitoring system