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

Title V Air Operation Permit Revision
DRAFT/PROPOSED Permit No.: 1050046-033-AV
Revision to the Title V Air Operation Permit No.: 1050046-027-AV

Revisions are presented in this draft/proposed permit in shaded/~~strikethrough~~ format with shaded areas indicating the additions and ~~strikethrough~~ indicating deletions from the previous permit. The final permit will not use the shaded/~~strikethrough~~ format.

Permitting & Compliance Authority:

Florida Department of Environmental Protection
Southwest District
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone: 813-632-7600
Fax: 813-632-7668

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Attachment D – Alternative Standards or Procedures Order No. ASP-95-H-01

Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

DRAFT/PROPOSED PERMIT

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

Permit No.: 1050046-033-AV
Bartow Facility
Facility ID No.: 1050046
Project: Title V Air Operation Permit Revision

The purpose of this permit is to ~~renew~~ revise the Title V Air Operation Permit 1050046-027-AV, incorporate the terms of Air Construction Permits 1050046-~~023~~029-AC, ~~1050046-024-AC,~~ and 1050046-~~025~~032-AC ~~through Title V Air Operation Permit Revision Project No. 1050046-026-AV~~. ~~The Project No. 1050046-026-AV is incorporated to this permit. This permit incorporates a total of twenty one stationary compression ignition (CI) reciprocating internal combustion engines (RICE). This project also incorporates gypstacks I and II of Mosaic Green Bay Facility as unregulated emission units~~. This facility is located at 3200 Highway 60 West and 4390 CR 640 West, Bartow, Polk County; UTM Coordinates: Zone 17, 409.8 km East and 3087.3 km North; and, Latitude: 27° 54' 26" and Longitude: 81° 55' 0.9" and Zone 17, 409.50 km East and 3080.10 North, and, Latitude: 27° 50'21" and Longitude 81° 54'41" respectively.

This Title V Air Operation Permit Revision 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 are made a part of this permit:
Attachment A: Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants
Attachment B - *Alternative MACT Monitoring Plan* vide Administrative Order No. 03-C-AP
Attachment C – Simultaneous Testing of F and PM – Interoffice Memorandum
Attachment D – Alternative Standards or Procedures Order No. ASP-95-H-01
Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix TV-6, Title V Conditions (version dated 06/23/06), with AOR & Revision Updates 11/10/08.
Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)
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40 CFR 60, Subparts A and IIII;
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Effective Date: DATE, 20xx
Revision Application Due Date: 11/23/2015
Expiration Date: 7/5/2016

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

Draft/Proposed

_____

Cindy Zhang-Torres, P.E.
Air Permitting Manager
Southwest District

CZT/qn/pp

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of one phosphoric acid plant (two trains), one monoammonium phosphate/ diammonium phosphate (MAP/DAP) plant, one DAP fertilizer plant, three sulfuric acid plants, two fertilizer shipping plants, one auxiliary boiler, and a molten sulfur storage and handling system.

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

Based on the Title V Air Operation Revision application and initial notification requirements of 40 CFR 63, Subpart AA - National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants, and BB - National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants, this facility is a major source of hazardous air pollutants (HAPs). This facility is classified as a PSD major facility. This facility is subject to the MACT (Maximum Achievable Control Technology) standards of 40 CFR 63, Subpart AA and BB. The facility is subject to 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) located at Major Sources of HAP emissions. The facility is also subject to the new source performance standards (NSPS) of 40 CFR 60, Subpart A – General Provisions, 40 CFR 60, Subpart H – Standards of Performance for Sulfuric Acid Plants and 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition (CI) internal combustion engines (ICE). Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

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

E.U. ID No.	Brief Description
-001	No. 3 Fertilizer (DAP/MAP) 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	No. 4 Fertilizer (DAP) 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

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
-079 Green Bay Phosphogypsum Stacks I & II

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.

<u>These documents are provided to the permittee for information purposes only:</u>
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
Statement of Basis

<u>These documents are on file with permitting authority:</u>
Initial Title V Air Operation Permit issued 10/6/1998
Title V Air Operation Permit Revision issued 4/7/2004
Title V Air Operation Permit Administrative Correction issued 11/6/2004
Revision Title V Air Operation Permit issued 9/30/2005
Title V Air Operation Revision Application received dated 02/17/2010
Additional Information Request dated 04/13/2010
Additional Information Response received dated 07/12/2010
Additional Information Request dated 08/9/2010
Additional Information Response received dated 11/5/2010

Application for a Title V Air Operation Permit Revision complete date 11/5/2010

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. Title V Conditions - APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.

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. An objectionable odor is any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.
[Rules 62-210.200 (Definitions), and 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). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. and 4. F.A.C.]

{Permitting Note: Although the Permittee is not required to perform a visible emissions compliance test to demonstrate compliance with the facility-wide limitations annually or before Revision, if the Department believes that the general visible emissions standard is being violated, the Department may require that the owner perform a visible emissions compliance test per Chapter 62-297.310(7)(b), Special Compliance Tests. In addition, Department personnel who are certified to perform visible emissions tests may determine compliance with the general visible emissions standard.}

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 10162
Fairfax, VA 22038
Telephone: (703) 227-7650

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. Not federally enforceable Emission of Unconfined Particulate Matter – 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.; DRAFT/PROPOSED by applicant in the initial Title V permit application received June 17, 1996; Air Construction Permit AC53-253092]
{Permitting Note: See Condition 57. of APPENDIX TV-6, TITLE V CONDITIONS}

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. Nothing was deemed necessary and ordered at this time.
[Rule 62-296.320(1)(a), F.A.C.]

8. Report Date – 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. 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. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permitting requirements must be clearly identified in such reports.
[40 CFR 70.6(3)(iii); Rule 62-213.440(1)(b), F.A.C.]

9. Emission Monitoring - 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 (Attachment C, attached). 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 (Attachment D, attached.}
[Rule 62-297.401, F.A.C.]

10. Testing Rate - 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.]

11. Special Testing - 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.]

12. Testing Notification - 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 notification should also include the relevant E.U. No(s)., test methods to be used and pollutants to be tested. The permittee may at the discretion of the Department, test an emissions unit with less than 15 days advance notice.}

13. Annual Operating Report (AOR) Requirement - On or before April 1 of each year, submit an Annual Operating Report [DEP Form 62-210.900(5)], 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 report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or hard copy may be submitted.
[Rule 62-210.370(3), F.A.C.]
{Permitting Note: also see APPENDIX TV-6, Condition number 24.}

14. Statement of Compliance – The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C. shall be submitted to the Air Compliance Section of the Southwest District of the Department, and EPA within 60 (sixty) days after the end of each calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3), and 62-213.900, F.A.C.]
{Permitting Note: This condition implements the requirements of Rule 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS)}

15. 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.]

16. Compliance Notification to the Department - Any reports, data, notifications, certifications, and requests required to be sent to the Department, should be sent to:

Department of Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone: 813/632-7600
Fax: 813/744-6458

17. Compliance Notification to the EPA - 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 & EPCRA Enforcement Branch
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155
Fax: 404/562-9163

18. Records Update – At a minimum, all records and logs required by this permit shall be updated monthly, by the end of the next month.
[Rule 62-213.440(1)(b), F.A.C.]
{Permitting Note: (see Condition Nos. 12. (14)(b) & 42. of APPENDIX TV-6, TITLE V CONDITIONS)}

19. Maintenance of Records – All operating records required by this permit, continuous monitor calibration and maintenance records (where applicable), and supporting information shall be retained at the facility for the most recent 5 consecutive-year period.
[Rule 62-213.440(1)(b), F.A.C.]

20. Method of Recordkeeping – Permittee may substitute automated monitoring and/or data-logging for the manual recordkeeping required by this permit.
[Rule 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C]

21. Circumvention – No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

22. Certification by Responsible Official (RO) – In addition to the professional engineering certification required for application by Rule 62-4.050(3), F.A.C., any application, form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

23. NSPS Applicability - 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.
[40 CFR 60 Subpart A]

24. 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.

25. Permit Revision – An application for a Revision to this permit shall be submitted in accordance with the terms and conditions contained in Appendix TV-6, Condition 5.
[Rules 62-4.090 and 62-213.(1)(a)2., F.A.C.]

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	No. 3 Fertilizer Plant Plant	11.0	48.2
B	002	No. 4 Fertilizer Shipping Plant	10.54[1]	31.6[1]
C	004	No. 3 Fertilizer Shipping Plant	N/A	N/A
F	021	Diammonium Phosphate Fertilizer Plant	22.8[1]	96.9[1]
G	045-050	Molten Sulfur Unloading, Storage and Handling System	0.99[2]	4.11[2]
H	051	Package Watertube Boiler	4.38[3]	3.84[3]
Total			49.71	

[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.

Section III. Emissions Unit(s) and Conditions.

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

E.U. ID No.	**Brief Description**
-001	No. 3 Fertilizer (DAP/MAP) Plant

The No. 3 Fertilizer (DAP/MAP) Plant has a design capacity of 3,000 tons per day produces ammonium phosphate products: monoammonium phosphate (MAP) and diammonium phosphate (DAP), which may be enhanced with addition of commercially available zinc, copper, boron, manganese and/or sulfur micronutrients. The process consists of a reactor, granulator, dryer, cooler, mills, screens, and ancillary equipment. The dryer is fired with natural gas, or fuel oil with a maximum sulfur content of 1.5 percent, at a design heat input rate of 40 mmBtu per hour. Process gas streams have the following dedicated control equipment:

- Reactor has venturi scrubbers and a cyclonic scrubber.
- Dryer is controlled by a venturi scrubber and a cyclonic scrubber.
- Granulator is controlled by a venturi scrubber and a cyclonic scrubber.
- Cooler has venturi scrubbers and a cyclonic scrubber.

The dryer process has a dedicated packed bed tail gas scrubber while the reactor, granulator, and cooler processes share a packed bed tail gas scrubber. The two tailgas packed bed scrubbers exhaust to a common stack.

~~The dryer is fired with natural gas, or fuel oil with a maximum sulfur content of 1.5 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 (Dryer tailgas scrubber). Emissions from the granulator are also controlled by a venturi scrubber and cyclonic scrubber. The reactor and equipment vents have a separate venturi and cyclonic scrubber as does the cooler. Exhaust from the reactor, granulator, cooler and vents go to a separate packed tailgas scrubber (RGCV tailgas scrubber). The tailgas scrubbers exhaust goes to a common stack.~~

~~The scrubbing system re-circulates a portion of the effluent of RGCV and Dryer tailgas scrubbers and uses the rest as scrubbing liquid in the Cooler scrubber in addition to the DAP pond water and re-use water. The Cooler scrubber effluent is returned to the DAP pond instead of to the Process water pond. This way the use of Process pond water in the Cooler scrubber with the effluent returning to Process water pond is eliminated.~~

The reactor emissions, along with those from elevators, screens, mills, hoppers, and such ancillary equipment areas go through the RV venturi cyclonic scrubber which uses product recovery solution as the scrubbing liquid. Emissions from the granulator go to the granulator venturi cyclonic scrubber which uses product recovery solution as the scrubbing liquid. Emissions from the dryer go to the dryer venturi cyclonic scrubber which uses product recovery solution as the scrubbing liquid. Emissions from the cooler go to the cooler venturi cyclonic scrubber which uses diammonium phosphate (DAP) pond water and effluent from the two tailgas packed bed scrubbers, i.e., the RGCV tailgas packed bed scrubber and dryer tailgas packed bed scrubber. The exhaust from the cooler venturi cyclonic scrubber, the granulator venturi cyclonic scrubber and the RV venturi cyclonic scrubber, all three streams, go to RGCV tailgas packed bed scrubber which uses DAP pond water and re-use water as the scrubbing liquid. Exhaust from

the dryer venturi cyclonic scrubber goes to the dryer tailgas packed bed scrubber which uses DAP pond water and re-use water as scrubbing liquid.

{Permitting notes: This emission unit is regulated under NSPS - 40 CFR 60, Subpart V, Standards of Performance of Phosphate Fertilizer Industry: Diammonium Phosphate Plants; and NESHAP – 40 CFR 63, Subpart A – General Provisions; 40 CFR 63, Subpart BB – National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; NESHAP alternate methods vide Administrative Order 03-C-AP, 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; Rule 62-296.403, F.A.C., Phosphate Processing.}

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 No. 3 Fertilizer (DAP/MAP) plant shall not exceed 3,000 tons per day of DAP or MAP product including products with commercially available zinc, copper, boron, manganese, and/or sulfur micronutrients. All micronutrients used shall be only those sold commercially as soil nutrients and shall be received, unloaded, handled, and processed such that all emissions of micronutrients are captured by existing air pollution control devices.
b. The maximum process rate shall not exceed 61.25 tons per hour of 100 percent phosphoric acid (P_2O_5) input (daily average basis).
c. The maximum heat input rate to the dryer is limited to 40 MMBtu per hour (daily average basis).
[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, Definitions - (PTE), F.A.C., Air Construction Permit PSD-FL-255 (1050046-008-AC & 1050046-012-AC)]
{Permitting Note: See Conditions A.27 and A.28 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 8,760 hours per year.
[Air Construction Permit 1050046-008-AC]

Emission Limitations and Standards

A.4. Fluoride (F) Emissions - Fluoride emissions from the No. 3 Fertilizer (DAP/MAP) Plant 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 of equivalent P_2O_5 feed is more stringent 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 Matter (PM) Emissions - Particulate emissions from the No. 3 Fertilizer (DAP/MAP) Plant shall not exceed 0.088 pounds per ton (PPT) of product nor 11.0 pounds per hour. ~~and 48.2 TPY based on 0.18 lb/ton P_2O_5.~~
[Air Construction Permit 1050046-~~008~~029-AC]
{Permitting Note: This replaces the emissions rate of 0.18 PPT of P_2O_5 feed into the reactor.}

A.6. Visible Emissions (VE) - 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. 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~~029-AC]

A.7. Fugitive Emissions - 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.
[Rule 62-4.070(3), F.A.C.]

A.8. Excess Emissions - 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 due to poor maintenance - 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. Excess Emission Notification - 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 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 No. 3 Fertilizer Plant for particulates, fluorides, and visible emissions during each federal fiscal year (October 1 – September 30).
[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.4., A.5. and A.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. Additional emissions monitoring during production with micronutrients shall be determined using EPA Methods 1, 2, 3, 4, 5 and 9. 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); Air Construction Permit 1050046-029-AC]

A.13. Compliance testing 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 the lowest grade oil than was used since the last compliance test.
[Rules 62-297.310(7)(b), and 62-4.070(3), F.A.C.]
(1) see condition A.2.

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.]

<u>Monitoring of Operations</u>

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 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 No. 3 Fertilizer (DAP/MAP) Plant operates.

{Permitting 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.
[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 Construction Permit 1050046-022-AC; 40 CFR 60.223(c)]

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.15. 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. Facility Name, Facility ID No. (1050046), Emission Unit No. (E.U. 001) and Description;
b. Date;
c. Product Mode (DAP or MAP);
d. When operating, Daily, record the hours of operation of the DAP/MAP production;
e. When operating, Daily, record the quantity, in tons, of the DAP/MAP production;
f. When operating, Daily, record the production rate, in tons/hour (daily average), of the DAP/MAP production;
g. When operating, Daily, record material process rate, in tons/hour of 100% P_2O_5.
h. 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;
i. 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;
j. the total hours of product dryer operation using oil of any type;
k. the total hours of product dryer operation using oil of any type for each consecutive rolling 12-month period (hours per 12 months);
l. gallons of No. 6 fuel oil used for each consecutive rolling 12-month;
m. heat input rate, mmBtu/hr (daily average)

[Rule 62-4.070(3), F.A.C.; Air Construction Permit 1050046-023-AC]

{Permitting Note: See NESHAP Conditions (Conditions A.23. through A.33.) as well as 40 CFR 63, Subpart A for additional recordkeeping requirements.}

A.21.a. Operational Records: The permittee shall maintain the following records in written or electronic operational logs: date, time and duration of production with and without micronutrients and quantity of the micronutrients input to the plant. These records are to be provided upon request within 3 working days.
[Rule 62-4.070(3), F.A.C.; Air Construction Permit 1050046-029-AC]

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. The permittee is subject to NESHAP alternate monitoring methods vide Administrative Order No. 03-C-AP dated 01/22/2004 (Attachment B).
[40 CFR 63.630(a), Administrative Order No. 03-C-AP]

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, Subpart A]

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.30.
[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.

C. Fan Amperage. A monitoring system that continuously monitor fan amperage for each fan in the scrubbing system.

[40 CFR 63.625(c), and Administrative Order No. 03-C-AP]

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) 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. 03-C-AP]

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 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. As an alternative to full-time utilization of the evacuation scrubber dust control system, the use of dust suppressant to control the generation of dust is allowed. 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.
[Rules 62-4.160(2), and 62-210.200, Definitions - (PTE), F.A.C.; Air Construction Permit AC53-239194]

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]

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 in 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. 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 in lieu of operation of the evacuation and scrubber dust control system.
[Air Construction Permit AC53-239194]

Test Methods and Procedures

B.8. Test the No. 4 Fertilizer Shipping Plant exhaust stack for particulates, and visible emissions during each federal fiscal year (October 1 – September 30). The annual particulate stack test can be waived, except a particulate stack test shall be conducted at least 270 days but not earlier than 365 days 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]

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, monthly and the most recent 12-consecutive month 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. Daily average product loading rate (tons/hr);
d. 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;
e. 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);
f. 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, a surge bin, a weigh belt and loading spouts.

All material transfer points are located inside the material handling building and are covered 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. Fertilizer product is loaded into trucks inside of the fertilizer storage warehouse with the doors closed to minimize fugitive dust emissions.

{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 (daily average 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. 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 during each federal fiscal year (October 1 – September 30). 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.]

Recordkeeping and Reporting Requirements

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

Daily:
a. Material loading rate during operation (tons per hour on daily basis);
b. Hours of opeation;
c. A description of, and rate of application of the suppressant oil (gallons/minute or hour);

Monthly:
a. Total amount of material loaded (tons per 12-consecutive months);
b. Total hours of operation for the 12-consecutive months.

[Rule 62-4.070(3), F.A.C. Air construction permit 1050046-017-AC]

C.7. Daily records shall be completed within five (5) business days and monthly records shall be completed by the end of the next month. These records shall be kept at the facility for at least five (5) years and made available to the Department.

[Rule 62-4.070(3), F.A.C. Air construction permit 1050046-017-AC]

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.

The Phosphoric Acid Plant No. 5 – U Train Reactor has been modified to improve sulfur control and stability. The modifications are itemized as follows:

1. Lowered Reactor Liquid Level – The liquid level in the reactor was lowered, increasing the freeboard (headspace) volume in the reactor. This allows more room for foaming during process fluctuations, without the foam overflowing the reactor vessel.

2. Repositioned Sulfuric Acid Sparger – The sulfuric acid sparger was moved into the bulk flow of the reactor (in Compartment No.4/No.5 Sideflow) to aid in mixing and improve the reaction and sulfate control.

3. Relocated Trim Sulfuric Acid Line – The trim sulfuric acid line was relocated in Compartment No. 5 to aid in sulfate stability and control. The trim line was previously located in Compartment No. 11.

4. Installed Fume Arch in No.5/No.4 Passageway – This modification to Compartment No. 4 and No.5 allows air pressure equalization in the reactor compartments and decrease the amount of foam-over events.

5. Modified Flash Cooler Suction Piping – Modifying the flash cooler suction piping helps maintain reactor circulation at design specifications for a longer period of time, which improves reactor stability.

The changes mentioned above will reduce foam-over events and therefore, decrease fugitive fluoride emissions from the reactor.

{Permitting notes: This emission unit is regulated under NESHAP - 40 CFR 63, Subpart A - General Provisions; 40 CFR 63, Subpart AA - National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; Administrative Order No. 03-C-AP for NESHAP alternate monitoring methods (attachment B); 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.}

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 (daily average) of equivalent P_2O_5 feed[(1)] rate, and may operate 8,760 hours per year.
[Rules 62-4.160(2) and 62-210.200, Definitions - (PTE), F.A.C., Air Construction Permits AC53-262532/ PSD-FL-224, 1050046-013-AC/PSD-FL-295 and 1050046-025-AC]

{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 0.012 lbs/ton of equivalent P_2O_5 feed.
[Air Construction Permit 1050046-013-AC/PSD-FL-295; 40 CFR 63.602(a)]
(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 during each federal fiscal year (October 1 – September 30) 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.
[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.
[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.]
{Permitting Note: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.}

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 $\pm$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 $\pm$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* and the following recordkeeping procedure:

a. Facility Name, Facility ID No. (1050046), Emission Unit ID No. (E.U. 010) and Description;
b. Date;
c. Total hours of operation;
d. Total equivalent P_2O_5 input, tons; and
e. Equvalent P_2O_5 feed rate, tons P_2O_5 per hour.

Daily records shall be completed within 5 business days.
[40CFR60.203; air construction permit 1050046-025-AC]

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.
[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

{Permitting 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. The permittee is subject to NESHAP alternate monitoring methods vide Administrative Order No. 03-C-AP (Attachment B).
[40 CFR 63.609(a), and Administrative Order No. 03-C-AP]

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, Subpart A]

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 within the allowable ranges established pursuant to 40 CFR 63.605(d)(1) or (2), as indicated in Condition D.22.
[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.

C. Fan Amperage. A monitoring system that continuously monitor fan amperage for each fan in the scrubbing system.

[40 CFR 63.605(c), and Administrative Order No. 03-C-AP]

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:
Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
[Rule 62-210.700, F.A.C., 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) 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 emissions from each sulfuric acid plant (Nos. 4, 5, and 6) is controlled by a dual absorption tower, and acid mist is controlled by high volume (HV) and high efficiency (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. 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 during each federal fiscal year (October 1 – September 30) 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, at least 270 days but not earlier than 365 days 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 Specific Condition E.1. regarding the production limitation of each sulfuric acid plant, the permittee shall maintain a daily record of sulfuric acid plant production rate (in TPD as 100% H_2SO_4) for each plant. These records shall include the following for each operating day of the month:

Daily
a. hours of operation;
b. the sulfuric acid production (in tons as 100% H_2SO_4); and
c. the sulfuric acid production rate, in tons per hour (daily average).

Daily records shall be completed within 5 business days of the day of operation.

[Rule 62-213.440(1), F.A.C.]

E.14. In order to document ongoing compliance with the emission limitations of Condition E.3, the permittee shall maintain daily and monthly records of Sulfuric Acid Plant sulfur dioxide (SO_2) emissions for each emission unit. The records shall include the following for each operating day of the month:

Daily
a. the SO_2 emission rate, in pounds per hour (daily average);
b. the SO_2 emission rate, in pounds per ton of 100% H_2SO_4.

Daily records shall be completed within 5 business days of the day of operation.

Monthly (Rolling 12-consecutive months)
The SO_2 emission rate, tons per year.

Monthly records shall be completed by the end of the next month.

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

E.15. 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.16. 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.17. 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.18. 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 (Attachment A), Rules 62-4.070(3) and 62-210.700(1), F.A.C.]

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

E.U. ID No.	Brief Description
-021	No. 4 Fertilizer (DAP) Plant

The No. 4 Fertilizer Diammonium Phosphate (DAP) Plant consists of a reactor, granulator, dryer, cooler, mills, screens and ancillary equipment. 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 notes: This emission unit is regulated under NSPS - 40 CFR 60, Subpart V, Standards of Performance of Phosphate Fertilizer Industry: Diammonium Phosphate Plants ,adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and NESHAP - 40 CFR 63, Subpart A - General Provisions; 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; Administrative Order No. 03-C-AP for NESHAP alternate monitoring methods (attachment B); 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; Rule 62-296.403, F.A.C., Phosphate Processing.}

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 No. 4 Fertilizer (DAP) 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).

[Rules 62-4.160(2), and 62-210.200, Definitions - (PTE), F.A.C.; Air Construction Permit AC53-246403/PSD-FL-211]

{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 No. 4 Fertilizer (DAP) Plant 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 matter (PM) emissions from the No. 4 Fertilizer (DAP) Plant shall not exceed any of the following:

a. 0.19 pound of particulate matter per ton of equivalent P_2O_5 feed;
b. 22.8 pounds of particulate matter per hour;
c. 96.9 tons of particulate matter 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. 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 No. 4 Fertilizer (DAP) Plant for particulates, fluorides, and visible emissions during each federal fiscal year (October 1 – September 30).
[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 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, No. 6 fuel oil is burned for a sum total of more 400 hours, then an additional emissions test per Condition 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.].

<u>Monitoring of Operations</u>
Conditions F.15 and F.16 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 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.
[Rule 62-4.070(3)]

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.18 and then by processing according to 40 CFR 60.224(b)(3).
[40 CFR 60.223(b)]

F.20. 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 record log(s) shall be established and maintained to document, at a minimum, the following:

Daily

a. Facility Name, Facility ID No. (1050046), Emission Unit ID No. (021) and Description;
b. Date;
c. Total hours of operation;
d. the DAP production (in tons as 100% P_2O_5);
e. the DAP production, in tons;
f. the DAP production rate, tons per hour (daily average basis; as 100% P_2O_5);
g. the quantity of natural gas and the quantity of No. 6 fuel oil utilized in the dryer (ft^3 and gallons respectively);
h. 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; and
i. the heat input rate to the dryer, mmBtu/hour (daily average basis).

Monthly

j. the total hours of operation for each rolling 12-consecutive month period;
k. gallons of No. 6 fuel oil for each rolling 12-consecutive month period (gallon per year); and
l. total DAP production for each rolling 12-consecutive month period.

[Rule 62-4.070(3), F.A.C. Air Construction Permit AC53-246403/PSD-FL-211]

{Permitting Note: See NESHAP Conditions (Conditions F.23. through F.31) 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 No. 6 fuel oil, 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. The permittee is subject to NESHAP alternate monitoring methods vide Administrative Order No. 03-C-AP dated 01/22/2004 (Attachment B).
[40 CFR 63.630(a), Administrative Order No. 03-C-AP]

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, Subpart A]

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.

C. Fan Amperage. A monitoring system that continuously monitor fan amperage for each fan in the scrubbing system.

[40CFR 63.625(c) and Administrative Order No. 03-C-AP]

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 ± 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)]

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 include 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 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. 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. 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 (Pit A and Pit B) are under induced DRAFT/PROPOSED with the total maximum ventilation rate of 1,500 actual cubic feet per minute (acfm) from Pit A and 3,000 acfm from Pit B. Pit A and Pit B each has a 25 foot tall stack.

{Permitting note(s): These emissions units are 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).
[Rules 62-4.160(2) and 62-210.200, Definitions - (PTE), F.A.C.; Air Construction Permit AC53-271436/PSD-FL-229]

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	4.11	0.99
TRS (as H_2S) emissions	5.04	1.22
SO_2	10.51	2.54
VOC emissions	7.49	1.81

[Air construction permit 1050046-024-AC]

G.4. 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.]

G.5. 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.]

G.6. 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.7. 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 at least 270 days but not earlier than 365 days prior to the expiration date of this permit.
[Rule 62-297.310(7)(a)3, F.A.C.]

G.8. Compliance with the visible emission limitation of Condition G.2 shall be determined using EPA 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.9. 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.10. 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.11. 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.12. 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.13. All vent surfaces shall be cleaned monthly to remove captured particles.
[Rule 62-296.411(1)(e), F.A.C.]

G.14. 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.15. 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.16. Recordkeeping – In order to document compliance with the requirements of Condition G.1., the permittee shall maintain, but not limited to, the following records for the Molten Sulfur Storage and Handling System at the facility and make them available to the Department upon request. The records at a minimum shall include the following:

a. Facility Name, Facility ID No. (1050046), Emission Unit ID Nos. (E.U. 045, 050) and Description;
b. Date;

Daily

c. Daily molten sulfur receiving rate (in TPD) (Pits A and B);
d. Sulfuric Acid Plants (SAPs) daily sulfur utilization rate (tons per day).

Daily records shall be completed within 5 business days.

Monthly

e. Monthly total sulfur receiving rate (tons per month) (Pits A and B) and total for consecutive 12-months (tons per year, TPY);
f. Sulfuric Acid Plants (SAPs) monthly total sulfur utilization rate (tons per month) and total for consecutive 12-months (tons per year, TPY).

Monthly records shall be completed by the 15th day of the following month.

[Rules 62-4.070(3) and 62-213.440(1)(b)2.b., F.A.C.; Air construction permit 1050046-024-AC]

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): This emissions unit is 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.}

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).

[Rules 62-4.160(2) and 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; and,
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

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 during each federal fiscal year (October 1 – September 30).
[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 DEP 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 the 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 between 365 – 270 days 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. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.
[Rule 62-297.310, 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, the total hours of operation for the boiler, daily average heat input rate (mmBtu/hr), and daily average fuel usage rate (gallons/hr or cf/hr).
[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 Stacks - There are two active Phosphogypsum stacks in the facility, the North Stack and the South Stack. The North stack is used for process water management and the south stack is accepting gypsum. The combined area of the north and south stacks is 516 acres and that of the cooling pond is 259 acres. Hydrogen fluoride is emitted fugitively from the stacks and the cooling pond and is reported in the annual operating report (AOR) submitted by the facility.

{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 DRAFT/PROPOSED 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 DRAFT/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 DRAFT/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 DRAFT/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:

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

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).

DRAFT/PROPOSED Permit Note: This **entire subsection** is an addition to the facility Title V air operation*
Permit. To make the subsection easier to read, double underline format is only shown on the Subsection J. caption and this Permit Note.
*(*This Note will be removed in the DRAFT/PROPOSED permit)*

E.U. ID No.	**Brief Description**
-074	New Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE) (Manufactured after April 1, 2006) (Subject to NSPS 40 CFR 60,Subpart IIII)

This emission unit consists of the emergency stationary compression ignition (CI) internal combustion engines as shown below*:

Manufacturer & Model Number	HP Rating	Date (Year) of Construction	Emergency Engine Locaiton/Purpose
Deutz	113	After June 12, 2006	South Stack Seepage Pump
Caterpiller, Model No: 3054C	83	After June 12, 2006	Main Office Power

("New Engine Note – These engines are considered "new" stationary reciprocating internal combustion engines (RICE) in accordance with the provision of NESHAP Subpart ZZZZ, 40 CFR 63.6590(a)(2), based on its of their date of manufacture/construction.)*

***NOTE - IMPORTANT REGULATORY CLASSIFICATIONS* -**

This Title V facility contains emergency stationary compression ignition (CI) internal combustion engines (shown above) that have been exempted from the requirements to obtain an air construction permit because these qualify for the categorical exemptions listed in Rule 62-210.300(3)(a), F.A.C. (specifically, Rule 62-210.300(3)(a)36, F.A.C. (General Purpose internal combustion engines and other RICE). However, these are included in this permit as regulated emission units because, based on their date of manufacture/construction, these are subject to federal rule NSPS 40 CFR 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Engines), as adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.

The following specific condition(s) apply to the emissions unit 074 listed above:

J.1. Applicable Federal 40 CFR 60 NSPS Standard - The emergency compression ignition (CI) diesel engines in this emission unit E.U. 074 are subject to and shall comply with the applicable requirements of New Source Performance Standard (NSPS) 40 CFR 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines), and 40 CFR 60 Subpart A (General Provisions for 40 CFR 60), both adopted and incorporated by reference in Rule 62-204.800(8), F.A.C. The applicable requirements for each engine category and HP rating range are shown in the **Summary of NSPS 40 CFR 60 Subpart IIII Applicable Requirements for Existing RICE at Major Sources of**

HAP, attached to this permit. The applicable requirements of 40 CFR 60 Subpart IIII are included as part of this permit in the appendix shown below:

Engine(s)	**Applicable NSPS 40 CFR 60 Subpart IIII Appendix**
Deutz, Caterpiller Model 3054C	Appendix NSPS 40 CFR 60 Subpart IIII , Condition Set IIIIK (Owner/operator pre-2007 non-fire pump emergency, less than 10L per cylinder).

[Rule 62-204.800(8), F.A.C.; 40 CFR 60 Subparts A and IIII]

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

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

DRAFT/PROPOSED Permit Note: This **entire subsection** is an addition to the facility Title V air operation Permit. To make the subsection easier to read, double underline format is only shown on the Subsection K. caption and this Permit Note.*
*(*This Note will be removed in the DRAFT/PROPOSED permit)*

E.U. ID No.	Brief Description
-075	Existing Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engine (RICE) > 500 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)
-076	Existing Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE) ≤ 500 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)
-077	Existing Non-Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engine (RICE) 100≤ HP ≤ 500 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)
-078	Existing Non-Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engine (RICE) < 100 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)

***NOTE - IMPORTANT REGULATORY CLASSIFICATIONS* -**

This Title V facility contains emergency and general purpose stationary compression ignition (CI) internal combustion engine (shown above) that have been exempted from the requirements to obtain an air construction permit because these qualify for the categorical exemptions listed in Rule 62-210.300(3)(a), F.A.C. (specifically, Rule 62-210.300(3)(a)35 and 36, F.A.C. (Emergency Generator and General Purpose internal combustion engines and other RICE). However, these are included in this permit as regulated emission units because, based on their date of manufacture/construction, these are subject to federal rule NSPS 40 CFR 63 Subpart ZZZZ (National Emission Standards of Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), as adopted and incorporated by reference in Rule e62-204.800(11), F.A.C.

EU 075 - Existing Emergency Stationary CI RICE > 500 HP, consists of the following stationary emergency* compression ignition (CI) engine at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Emergency* Generator Location/Purpose
Cummins Model: KTTA50-G2	2,220	February 1995	Generator Power Plant

(Emergency RICE Note – In order to be considered an emergency RICE subject to the 40 CFR 63 Subpart ZZZZ requirements for emergency CI RICE, the engine must be operated in accordance with the requirements specified in 40 CFR 63.6640(f).)*

EU 076 - Existing Emergency Stationary CI RICE < 500 HP, consists of the following stationary compression ignition (CI) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Emergency Engine Location/Purpose
Cummins, Model: 6CTAA8.3-21	288	Prior to June 12, 2006	No. 4 SAP Generator
Caterpiller, Model: 3126	220	Prior to June 12, 2006	R1 Canal Emergency Pump
Caterpiller, Model: 3304 PC	155	Prior to June 12, 2006	No. 5 SAP Generator
Caterpiller, Model: 3304 PC, Serial Number: 4B10765	155	Prior to June 12, 2006	No. 6 SAP Generator
Cummins, Model: 6BT5.9-G6	155	Prior to June 12, 2006	Safety Bldg Generator No. 3
Cummins, Model V378F2	132	Prior to June 12, 2006	SAP Fire Pump
Cummins, Model: 4BT3.9-G4	102	Prior to June 12, 2006	Foam Bldg Generator No. 4
John Deer, Model: GENB-S2	70	1999	II-C MCC Generator
Cummins	<500	Prior to June 12, 2006	East Gate Generator

EU 077 - Existing Non-Emergency CI RICE 100≤HP≤ 500 HP, consists of the following stationary compression ignition (CI) Reciprocating Internal Combustion Engine (RICE) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Engine Location/Purpose
Detroit, Model No. 60, 12.7L	500	Prior to June 12, 2006	II-C Center Pump
Detroit, Model No. 6V-671	180	Prior to June 12, 2006	Deep Well Left Diesel Engine
Detroit, Model No. 6V-671	180	Prior to June 12, 2006	Deep Well Right Diesel Engine
Detroit, Model No. 06VF221121**	250	Prior to June 12, 2006	South Stack Seepage
Deutz, Model: D914L06**	116	Prior to June 12, 2006	Pump Collection Area into II-C Pump

** *Rented*

{Permitting Note: The Department will accept an official notification regarding the replacement of the rental engines with similar in-kind units or removal from site.}

EU 078 - Existing Non-Emergency CI RICE <100 HP, consists of the following stationary compression ignition (CI) Reciprocating Internal Combustion Engine (RICE) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Engine Location/Purpose
John Deere	99.2	Prior to June 12, 2006	G-2 Pump
Model No. F41914**	76	Prior to June 12, 2006	Pump Seepage to R-2 Canal Pump
Model No. F41913**	75	Prior to June 12, 2006	Creek SR Seepage Return Pump
Perkins**	51	Prior to June 12, 2006	South Stack Seepage

*** Rented*

{Permitting Note: The Department will accept an official notification regarding the replacement of the rental engines with similar in-kind units or removal from site.}

*(**Stationary RICE Engine Listing Note** – The above listings of stationary CI RICE engines at this facility is based upon the information submitted in an attachment to a 02/24/2011 e-mail responding to a Department request for additional information on stationary RICE at the facility via e-mail on 02/03/2011)*

NOTE - IMPORTANT REGULATORY CLASSIFICATIONS:

Federal 40 CFR 60 New Source Performance Standard (NSPS) Applicability

NSPS Subpart IIII – NSPS 40 CFR 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines) does not apply to any of these CI engines based on their date of manufacture (i.e., before June 12, 2006).

Federal 40 CFR 63 National Emissions Standard for Hazardous Air Pollutants (NESHAP) Applicability

NESHAP Subpart ZZZZ - NESHAP 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) is applicable to these engines as existing stationary Reciprocating Internal Combustion Engines (RICE) at a major source of hazardous air pollutants (HAPs).

The following specific condition(s) apply to the emissions units 075, 076, 077 and 078 listed above:

Applicable Federal Requirements

K.1. Federal 40 CFR 63 NESHAP Subpart ZZZZ Requirements - The engines in EU Nos. 075, 076, 077 and 078 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines), which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart ZZZZ**, as it applies to existing RICE at major sources of hazardous air pollutants (HAP). The applicable requirements for each engine category and HP rating range are shown in the **Summary of NESHAP 40**

CFR 63 Subpart ZZZZ Applicable Requirements for Existing RICE at Major Sources of HAP, attached to this permit.
[Rule 62-4.070(3), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

*(Compliance Note – The Draft/Proposed compliance date for the applicable Subpart ZZZZ requirements for the existing compression ignition (**CI**) RICE engines at this major source of HAP is 05/03/2013.*
(40 CFR 63.6595(a)(1).)

K.2. Federal NESHAP 40 CFR 63 Subpart A General Provisions Requirements - The engines in EU Nos. 075, 076, 077 and 078 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart A (General Provisions for 40 CFR 63), as adopted and incorporated by reference in Rules 62-204.800(11)(d), F.A.C., which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart A General Provisions**. The applicable requirements of Subpart A are shown in Table 8 to 40 CFR 63 Subpart ZZZZ *(see Appendix NESHAP 40 CFR 63 Subpart ZZZZ)*.
[Rule 62-208.800(11)(d), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]