Mosaic Fertilizer, LLC
Bartow Facility

Facility ID No. 1050046
Polk County

Title V Air Operation Permit Revision

Permit No. 1050046-051-AV
(Revision of Title V Air Operation Permit No. 1050046-042-AV)

Permitting Authority:

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3200 Hwy 60 West
Bartow, Florida 33830

Permit No. 1050046-051-AV
Bartow Facility
Facility ID No. 1050046
Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility to incorporate the provisions of Construction Permit No. 1050046-050-AC.

The existing Bartow Facility is in Polk County at 3200 Hwy 60 West, Bartow. UTM Coordinates are: Zone 17, 409.77 East and 3087.26 North. Latitude is: 27° 54' 25.938" North; and, Longitude is: 81° 55' 0.9691" West.

The Title V air operation permit 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 in accordance with the terms and conditions of this permit.

1050046-051-AV Effective Date: September 15, 2017
1050046-042-AV Effective Date: July 2, 2016
Renewal Application Due Date: November 19, 2020
Expiration Date: July 2, 2021

David Lyle Read, P.E.
2017.09.15 14:10:08 -04'00'

For:

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

SA/dlr/sms

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, an auxiliary boiler and a molten sulfur storage and handling system.

Based on the Title V Air Operation Renewal 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 Units.

EU No.	Brief Description
Regulated Emissions Units	
001	No. 3 Fertilizer (DAP/MAP) Plant
002	No. 4 Fertilizer Shipping Plant
004	No. 3 Fertilizer Shipping Plant
010	Wet Phosphoric Acid Plant (No. 4 & No. 5 combined)
012	No. 4 Sulfuric Acid Plant
021	No. 4 Fertilizer Plant
032	No. 6 Sulfuric Acid Plant
033	No. 5 Sulfuric Acid Plant
045	Molten Sulfur System - Stack 45 (Pit A), 200 ton molt sulf pit
046	Molten Sulfur Storage - Vent 44 from 6,000 ton tank
047	Molten Sulfur System (Vent from 3,000 ton surge tank)
050	Molten Sulfur System - Stack 47 (Pit B), 300 ton molt sulf pit
052	Phosphogypsum Stack
073	NG Fired 75 mmBtu/hr boiler at Greenbay
074	New Stationary Emergency CI RICE
075	Existing Emergency CI RICE > 500 hp
076	Existing Emergency CI RICE < or equal to 500 hp
077	Existing Non-Emergency CI RICE 100 < hp < 500
078	Existing Non-Emergency Stationary CI RICE < 100 hp

Unregulated Emissions Units and Activities (see Appendix U, List of Unregulated Emissions Units and/or Activities)	
051	Cleaver Brooks Package Watertube Boiler
053	Facility Wide Unregulated Emissions
061	Waste Heat Boiler Blowdown/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 Tank
066	Molten Sulfur Fires and Spill Cleanup
067	VOC From Solvent Cleaning of Small Parts
068	Welding, Grinding, and Cutting Metal for Maintenance
069	Fugitive Dust/Exhaust Emissions From Maint. Vehicles
070	Misc. 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

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received November 20, 2015, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	**EU No(s).**
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	012, 032, 033, 073 & 074
Appendix NSPS - 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	073
Appendix NSPS - 40 CFR 60, Subpart H – Standards of Performance for Sulfuric Acid Plants	012, 032, 033
Appendix NSPS - 40 CFR 60, Subpart IIII-Set K and Set E – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	074
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Appendix NESHAP - 40 CFR 63, Subpart AA - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Phosphoric Acid Plants	010

Appendix NESHAP - 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Phosphate Fertilizer Production Plants	001, 021, & 052
Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)	075, 076, 077, 078
40 CFR 68	All
State Rule Citations	
62-4 - Permits	All
62-204 –Air Pollution Control – General Provisions	002, 004, 010, 012, 021, 032, 033, 045, 046, 047, 050
62-210 – Stationary Sources – General Requirements	All
62-212 – Stationary Sources – Preconstruction Review	001, 012, 021, 032, 033, 045, 046, 047, 050
62-213 – Operation Permits for Major Sources of Air Pollution	All
62-296 – Stationary Sources – Emissions Standards	All
62-297 – Stationary Sources – Emissions Monitoring	001, 002, 004, 010, 012, 021, 032, 033, 073

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means 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. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General 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. [Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

FW5. 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.; FINAL by applicant in the initial Title V permit application received June 17, 1996; Air Construction Permit AC53-253092]

FW6. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Confine blasting operations when practical.
b. Use covered conveyor belts as and when practical.
c. Clean and remove dirt from paved areas.
d. Use dust suppression agents on fertilizer products.
e. Post appropriate speed limits on plant roadways.
f. Store fertilizer products inside buildings.
g. Enclose product material transfer points when practical.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received November 23, 2015.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW7. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's (DEP) Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic

Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, Post Office Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. ***A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.****}*

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

FW8. Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: https://cdx.epa.gov. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: http://www2.epa.gov/rmp. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

b. Submit 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]

Other Requirements

FW9. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities and Appendix I, List of Insignificant Emissions Units and/or Activities, are a part of this permit. [Rule 62-213.440(1), 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.

Subsection A. Emissions Unit 001

The specific conditions in this section apply to the following emissions unit:

EU 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 ammonia and phosphoric acid are combined in the reactor to give the ammoniated phosphate slurry which is then conveyed to the granulator where ammonia is further introduced via sparging at the bottom as the slurry is sprayed axially. In some instances, phosphoric acid is also introduced into the granulator. The granular MAP or DAP so formed then goes to the dryer to remove the moisture, is then screened to obtain the desired product size, then cooled in the rotary cooler and then sent to the product storage warehouses. The process consists of a reactor, granulator, dryer, cooler, mills, screens, conveyors and pollution control equipment comprising of primary and secondary scrubbers, along with other ancillary equipment such as the ammonia chiller, cyclones and seal tanks. 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 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.

A coating oil ribbon blender has been installed in the No. 3 Fertilizer (DAP/MAP) Plant downstream of polishing screens and before the Cominco Plate Cooler to apply de-dusting coating oil to the product. The current practice of application of de-dusting coating oil into the rotary cooler is retained to allow for contingencies such as maintenance and breakdowns.

Two 4,800 cubic foot storage silos and two 400 cubic foot day bins to store zinc and boron micronutrient compounds have been added in the Appendix I-1, List of Insignificant Emission Units and/or Activities.

{Permitting notes:
This emission unit is regulated under 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 ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB, 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.

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum permitted production rate is as follows:

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 (Definition of Potential to Emit), F.A.C., Air Construction Permit No. PSD-FL-255 (1050046-008-AC & 1050046-012-AC)]

A.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

A.3. 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 (see permitting note below). 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. [Rule 62-213.410, F.A.C.; Permit No. 1050046-008-AC.]

{Permitting Note, 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.4. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.; Air Construction Permit No. 1050046-008-AC]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **A.5. - A.7.** are based on the specified averaging time of the applicable test method.

A.5. Visible Emissions. Visible emissions shall not exceed 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 No. 1050046-029-AC]

A.6. 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 No. 1050046-008-AC]

*{Permitting Note: The fluoride emission limit in Condition **A.6.** 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 other applicable requirements of the NESHAP, 40 CFR 63, Subparts A and BB.}*

A.7. PM Emissions. Particulate matter (PM) emissions shall not exceed 0.088 pounds per ton (PPT) of product nor 11.0 pounds per hour. [Rule 62-296.320(4); Air Construction Permit No. 1050046-029-AC]

{Permitting Note: This replaces the emissions rate of 0.18 PPT of P_2O_5 feed into the reactor.}

A.8. 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 control devices. [Rule 62-4.070(3), F.A.C.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

A.9. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.10. Excess Emissions Prohibited. 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.11. 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.]

Monitoring of Operations

A.12. Feed Material Monitoring. The permittee shall install 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 63.625(a) & Air Construction Permit No. 1050046-008-AC]

A.13. Control Equipment Monitoring. 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.

[Rule 62-4.070(3); 40 CFR 60.223(c); 40 CFR 63.625(c), Air Construction Permit No. 1050046-022-AC and ASP Request 15-U-AP]

A.14. Monitoring Log. 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.

[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

{Permitting Note: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.}

A.15. Alternate Monitoring Plan. The pollution control equipment may 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)]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.16. Test Methods. When required, tests shall be performed in accordance with the following reference methods

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of particulate matter emissions from stationary sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
13A	Determination of total fluoride emissions from stationary sources—SPADNS zirconium lake method
13B	Determination of total fluoride emissions from stationary sources—Specific ion electrode method

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

A.17. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.; 40 CFR 63.626(a)(1) and 63.630(a)]

A.18. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), each EU shall be tested to demonstrate compliance with the emissions standards for VE, F and PM in Specific Conditions **A.5. – A.7**. [Rules 62-210.300(2)(a) and 62-297.310(8), F.A.C.]

A.19. Determination of Total Fluoride Emissions. The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.626(f), based on the equivalent P_2O_5 computed as indicated in 40 CFR 63.626(f)(3). [40 CFR 63.626(f)]

A.20. Monitoring During Test: To comply with § 63.625(a)(1) or (2), the owner or operator shall use the monitoring systems in § 63.625(d) 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(a)(1) or (2). [40 CFR 63.626(d)(4)]

A.21. Additional Compliance Test Requirements. 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 Specific Conditions **A.5.**, **A.6.** & **A.7.** 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. If testing is conducted while firing fuel oil in the dryer, compliance with the sulfur content requirement of Condition **A.3.** shall be demonstrated during the test by submitting either a Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or a Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test. of the following with the test report. [Rules 62-297.310(7)(b), and 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

A.22. Determination of Equivalent P_2O_5 Feed. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass in tons per hour of phosphorus-bearing feed using a monitoring device for determining mass flow rate which meets the requirements of **A.12.** and then by processing according to 40 CFR 60.224(b)(3). [40 CFR 60.223(b)]

A.23. Sulfur Content of Fuel Record. In order to document continuing compliance with the maximum sulfur content requirement of Specific Condition **A.3.**, 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.24. Daily Record Logs. 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 No. 1050046-023-AC]

*{Permitting Note: See NESHAP Conditions (Specific Conditions **A.13.**, **A.19.**, **A.20.**, **A.27.**, **A.29.**, **A.30.** & **A.31.**) as well as 40 CFR 63, Subpart A for additional recordkeeping requirements.}*

A.25. 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 No. 1050046-029-AC]

A.26. Test Reports. All test reports submitted to the Compliance Assurance Program (CAP) 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 and/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 (Specific Conditions **A.13.**, **A.19.**, **A.20.**, **A.27.**, **A.29.**, **A.30.** & **A.31.**) as well as 40 CFR 63, Subpart A, for additional monitoring and recordkeeping requirements during performance tests.}*

A.27. Notification Requirements. 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.28. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Other Requirements

A.29. Alternate Monitoring Methods. The permittee is subject to NESHAP alternate monitoring methods vide ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB dated 05/15/2015 (Attachment B). [40 CFR 63.632(a), ASP Request 15-U-AP]

A.30. Determining Allowable Range of Scrubber Operation Parameters. 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:

a. 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 § 63.625(d)(1). 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.

b. 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 § 63.625(d)(1). 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 § 63.625(d)(1). 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(d)]

A.31. Maintaining Allowable Range of Scrubber Operation Parameters. 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(d)(1), as indicated in Specific Condition **A.31.** [40 CFR 63.625]

A.32. Federal Rule Applicability. 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 (ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB dated 05/15/2015). 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 ASP Request 15-U-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 ASP Request 15-U-AP]

Subsection B. Emissions Unit 002

The specific conditions in this section apply to the following emissions unit:

EU 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: These emissions units are regulated under Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards.}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum truck and/or railcar product loading rate shall not exceed 660 tons per hour. [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and Air Construction Permit No. AC53-239194.]

B.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

B.3. Hours of Operation. The hours of operation of this emissions unit shall not exceed 6,000 hours in any 12 month consecutive period. [Rule 62-210.200(PTE), F.A.C.; and, Air Construction Permit No. AC53-239194]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **B.4.- B.6.** are based on the specified averaging time of the applicable test method.

B.4. Visible Emissions. Visible emissions shall not exceed 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.5. Visible Emissions. 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. [Rule 62-296.320(4), F.A.C.; Air Construction Permit No. AC53-239194]

B.6. PM Emissions. Particulate matter (PM) emissions shall not exceed 0.03 grains/dscf nor 10.54 pounds per hour (based upon a maximum exhaust gas flow rate of 41,000 dscfm). Based upon the hours of operation limitation of Condition **B.3.**, this results in a maximum annual emission rate limitation of 31.6 tons in 12 consecutive month period. [Rule 62-296.320(4), F.A.C.; BACT Determination, January 2, 1981, Air Construction Permit No. AC53-239194]

B.7. PM Emissions. Particulate Matter (PM) emissions will be controlled 100% by dust suppressant. [Rule 62-4.070(3), F.A.C.; Applicant Request, Letter dated October 28, 2004]

B.8. PM Emissions. Any deviation from 100% dust suppressant to control PM emissions will result in compliance action and submittal of a Compliance Assurance Monitoring (CAM) Plan by the permittee for the scrubber. 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.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

B.9. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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]

B.10. Excess Emissions Prohibited. 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.]

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.]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.12. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of particulate matter emissions from stationary sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual determination of fugitive emissions from material sources and smoke emissions from flares

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

B.13. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

B.14. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), each EU shall be tested to demonstrate compliance with the emissions standards for VE and PM 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 Specific Condition **B.15.** [Rule 62-297.310(8), F.A.C.]

{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}

B.15. Additional Required Compliance Tests 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 No. AC53-239194]

Recordkeeping and Reporting Requirements

B.16. In order to document compliance with Specific Conditions **B.1**., **B.3.** & **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.]

B.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Subsection C. Emissions Unit 004

The specific conditions in this section apply to the following emissions unit:

EU 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: 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. 4.)}

Essential Potential to Emit (PTE) Parameters

C.1. Permitted 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). [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Air Construction Permit No. 1050046-017-AC]

C.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

C.3. Hours of Operation. This emissions unit may operate a maximum of 6,000 hours in any 12 month consecutive period. [Rule 62-210.200(PTE), F.A.C.; and, Air Construction Permit No. 1050046-017-AC]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Condition **C.4.** is based on the specified averaging time of the applicable test method.

C.4. Visible Emissions. Visible emissions shall not exceed 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

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

C.5. Test Methods. When required, tests shall be performed in accordance with the following reference method:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above method is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

C.6. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

C.7. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), this EU shall be tested to demonstrate compliance with the emissions standards for VE. [Rule 62-297.310(8), F.A.C.]

C.8. Additional Compliance Test Requirements. 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.9. Recordkeeping Schedule. 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 No. 1050046-017-AC]

C.10. Recordkeeping. 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 operation;

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 No. 1050046-017-AC]

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
010	Wet Process Phosphoric Acid Plant (No. 4 & No. 5 Combined)

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.; ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB (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. 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.}

Essential Potential to Emit (PTE) Parameters

D.1. Permitted 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 expressed as phosphorous pentoxide feed rate.[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Air Construction Permit Nos. 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 P2O5; Phosphate rock is typically 29% P2O5, 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 P2O5 feed rate.}

D.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging time for Specific Condition **D.3.** is based on the specified averaging time of the applicable test method.

D.3. Fluoride Emissions. Total Fluoride Emissions shall not exceed 0.012 lbs/ton of equivalent P_2O_5 feed. Total Fluoride Emissions shall include 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. [Rule 62-4.070(3), F.A.C.; Air Construction Permit No. 1050046-013-AC/PSD-FL-295; 40 CFR 63.602(a)]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

D.4. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.5. Excess Emissions Prohibited. 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.6. Excess Emissions 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 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.]

Monitoring of Operations

D.7. Alternate Monitoring Plan. 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. & 40 CFR 63, Subpart AA;]

D.8. Scrubber Monitoring Systems. 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(d), and ASP Request 15-U-AP]

D.9. Scrubber Operating Parameters. In order to provide reasonable assurance that the fluoride emission limitation of Specific Condition **D.3.** 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 Emissions Monitoring Requirements

D.10. Phosphorus Feed Rate. The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The monitoring device shall have an accuracy of ±5% over its operating range. [40 CFR 60.203(a)]

D.11. Pressure Drop. The permittee shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the process scrubbing system. The monitoring device shall have an accuracy of ±5% over its operating range. [40 CFR 60.203(c)]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

D.12. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
13A	Determination of total fluoride emissions from stationary sources—SPADNS zirconium lake method
13B	Determination of total fluoride emissions from stationary sources—Specific ion electrode method

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

D.13. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

D.14. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), emissions from Nos. 4 and 5 Phosphoric Acid Train scrubbers, and No. 3 Filter process scrubber shall be tested simultaneously to demonstrate compliance with the emissions standards for fluoride [Rule 62-297.310(8), F.A.C; 40 CFR 63.606(a)]

D.15. Additional Compliance Test Requirements. 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); and

c. the "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.]

Recordkeeping and Reporting Requirements

D.16. Daily Record. 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. Equivalent P_2O_5 feed rate, tons P_2O_5 per hour.

Daily records shall be completed within 5 business days.

[Rule 62-4.070(3) F.A.C.; 40 CFR 60.203; Air Construction Permit No. 1050046-025-AC]

D.17. Downtime Reporting Requirements. The monitoring devices required by Specific Conditions **D.10** & **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.18. Method of Calculating P_2O_5 Feed Rate. 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(f). [Rule 62-213.440(1)(b), F.A.C. & 40 CFR 63.605(b)(1)]

D.19. Notification Requirements. 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.20. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Other Requirements

D.21. Alternate Monitoring Methods. The permittee is subject to NESHAP alternate monitoring methods vide ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB (Attachment B). [62-4.070(3), F.A.C.; ASP Request 15-U-AP]

D.22. Determining Allowable Range of Scrubber Operation Parameters. 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(d) or (g). 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(d) or (g). 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(d) or (g). 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. Maintaining Allowable Range of Scrubber Operation Parameters. 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 63.605]

D.24. Monitoring Scrubber Operation. 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(d)]

D.25. Determination of Total Fluoride Emissions. The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.606(d), based on the equivalent P_2O_5 computed as indicated in 40 CFR 63.606(d)(3). [40 CFR 63.606(d)]

D.26. Operational Variations. 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 No. 1050046-013-AC/PSD-FL-295]

D.27. Federal Rule Applicability. 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 (ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB dated 05/15/2015). 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 ASP Request 15-U-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 ASP Request 15-U-AP]

The specific conditions in this section apply to the following emissions units:

EU 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 notes:

These emissions units are 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.

Project 1050046-045-AV incorporates the modification authorized under project 1050046-038-AC of an additional 2 feet of packing in the tower to SAP No. 5.}

Essential Potential to Emit (PTE) Parameters

E.1. Permitted 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). [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Air Construction Permit No. AC53-271436/PSD-FL-229.]

E.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

E.3. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **E.4.-E.7.** are based on the specified averaging time of the applicable test method.

E.4. Visible Emissions. Visible emissions from each plant shall 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. [Rule 62-204.800(8)(b)., F.A.C., Rule 62-297.310(5)(b), and 40 CFR 60.83(a)(2)]

E.5. NO_X Emissions. Nitrogen oxide (NO_X) emissions from each plant shall not exceed 0.12 pounds per ton of 100% H_2SO_4 produced, or 13.0 pounds per hour or 57 tons per year. [Construction Permit No. AC53-271436/PSD-FL-229]

E.6. SO_2 Emissions. Sulfur Dioxide emissions from each plant shall not exceed 4 pounds per ton of 100% H_2SO_4 produced, or 433.3 pounds per hour or 1898 tons per year. [Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60.82(a), and Air Construction Permit No. AC53-271436/PSD-FL-229]

E.6.1. This condition applies after initial compliance has been demonstrated, yet no later than August 31, 2019. SO_2 Emission Limit: The following SO_2 emission limit applies to the Sulfuric Acid Plant (SAP) Nos. 4, 5 & 6:

a. When all three SAPs are in operation within the same 24-hour block averaging period, a cap of 1,100 lb SO_2/hour, 24-hour block average (6:00 a.m. to 6:00 a.m.) is applicable; and,

b. The cap of 1,100 lb SO_2/hour, 24-hour block average (6:00 a.m. to 6:00 a.m.) applies in scenarios when any combination of any number of the SAPs are not in operation and when any number of the SAPs are in operation.
Any requested revisions to this emission limit requires air dispersion modelling review and written approval from the Department's Meteorology and Air Modeling Section in the Office of Business Planning to confirm SO_2 NAAQS compliance.

[Rule 62-4.030, *General Prohibition*, F.A.C.; and, Rule 62-4.210, *Construction Permits*, F.A.C.; and, Permit No. 1050046-050-AC.]

E.7. H_2SO_4 Mist Emissions. Sulfuric Acid Mist (SAM) emissions from each plant shall not exceed 0.15 pounds per ton of 100% H_2SO_4 produced, or 16.25 pounds per hour or 71.2 tons per year. [Rule 62-204.800(8)(b), F.A.C., 40 CFR 60.83(a)(1), and Air Construction Permit No. AC53-271436/PSD-FL-229]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

E.8. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.]

E.9. Excess Emissions Prohibited. 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.]

E.10. Fugitive Emissions. 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 Emissions Monitoring Requirements

E.11. SO_2 CEMS. 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. The permittee shall determine emissions in the units of the applicable standard (lb/ton) in accordance with 40 CFR 60.84(b) or (d). [Rule 62-204.800(7)(b)10, F.A.C.; 40 CFR 60.84]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

E.12. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources

Method	Description of Method and Comments
8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

E.13. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

E.14. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), each EU shall be tested to demonstrate compliance with the emissions standards for Sulfur Dioxide, Sulfuric Acid Mist and Visible Emissions. [Rule 62-297.310(8), F.A.C.]

E.15. Compliance Tests Prior To Renewal. Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see condition **TR7.b.(3)** in Appendix TR – Facility-wide Testing Requirements), in addition to the annual compliance tests specified above, compliance tests shall also be performed for Nitrogen Oxides prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in Specific Condition **E.5.** [Rules 62-210.300(2)(a) and 62-297.310(8)(b), F.A.C.]

{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}

Recordkeeping and Reporting Requirements

E.16. Daily and Monthly Recordkeeping. In order to document compliance with Specific Conditions **E.1.** & **E.6**., the permittee shall maintain a daily record of sulfuric acid plant production rate (in TPD as 100% H_2SO_4) and sulfur dioxide emissions for each plant. These records shall include the following for each operating day of the month. The permittee shall also maintain a monthly record of the sulfur dioxide emission rate in tons per year as a rolling 12-consecutive month average as shown below:

Daily

a. hours of operation;

b. the sulfuric acid production (in tons as 100% H_2SO_4);

c. the sulfuric acid production rate, in tons per hour (daily average)

d. the SO_2 emission rate, in pounds per hour (daily average); and

e. 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.

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

E.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

E.18. Excess SO_2 Reporting. 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(8) and 62-213.440(1)(b), F.A.C.; 40 CFR 60.7 and 60.84(e)]

E.19. Startup/Shutdown and Malfunction Reporting. 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(8) and 62-213.440(1)(b), F.A.C.; 40 CFR 60.7]

E.20. Record Maintenance. 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(8) and 62-213.440(b), F.A.C;. 40 CFR 60.7]

Other Requirements

E.21. Memorandum of Understanding. 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.]

The specific conditions in this section apply to the following emissions unit:

EU 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 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.; ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB (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. }

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity, DAP. 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. [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Air Construction Permit No. AC53-246403/PSD-FL-211.]

F.2. Permitted Capacity, Heat Input. The maximum allowable heat input rate to the dryer shall not exceed 40 MMBtu per hour (daily average basis). [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), F.A.C.; and, Air Construction Permit No. AC53-246403/PSD-FL-211.]

F.3. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

F.4. Methods of Operation.

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.

[Rule 62-213.410, F.A.C.; Air Construction Permit No. AC53-246403/PSD-FL-211, BACT determination November 14, 1994] *{Permitting note: When this Subsection F refers to "No. 6 fuel oil" it applies equally to Nos. 2 through 5 fuel oil.}*

F.5. 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(PTE), F.A.C.; and, Air Construction Permit No. AC53-246403/PSD-FL-211]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging times for Specific Conditions **F.6.-F.8.** are based on the specified averaging time of the applicable test method.

F.6. Visible Emissions. Visible emissions shall not exceed 10%. 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(5)(a), F.A.C.; Air Construction Permit No. AC53-246403/PSD-FL-211]

F.7. Fluoride Emissions. Fluoride emissions shall not exceed any of the following: 0.060 pound of fluoride per ton of equivalent P_2O_5 feed (30 g/metric ton), 5.50 pounds of fluoride per hour, 23.40 tons of fluorides per year. [40 CFR 60.222, Air Construction Permit No. AC53-246403/PSD-FL-211]

*{Permitting Note: The fluoride emission limit in Condition **F.7.** 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.8. PM Emissions. Particulate matter (PM) emissions shall not exceed any of the following: 0.19 pounds per ton of equivalent P_2O_5 feed (30 g/metric ton), 22.8 pounds per hour, 96.9 tons per year. [Air Construction Permit No. AC53-246403/PSD-FL-211, BACT determination November 21, 1994]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

F.9. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.10. Excess Emissions Prohibited. 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.11. Fugitive Emissions. 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.12. Excess Emissions 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 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.]

Monitoring of Operations

F.13. Phosphorus Feed Rate. 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 60.203(a); 40 CFR 60.223(a) & 40 CFR 63.625(a)]

F.14. Scrubber System Pressure Drop. 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 60.203(c); 40 CFR 60.223(c)]

F.15. Alternate Monitoring Plan. 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.]

Continuous Emissions Monitoring Requirements

F.16. Scrubber Monitoring Systems. 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 ASP Request 15-U-AP]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

F.17. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of particulate matter emissions from stationary sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
13A	Determination of total fluoride emissions from stationary sources—SPADNS zirconium lake method
13B	Determination of total fluoride emissions from stationary sources—Specific ion electrode method

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

F.18. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

F.19. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), this EU shall be tested to demonstrate compliance with the emissions standards for visible emissions, particulate matter and fluorides. [Rule 62-297.310(8), F.A.C.; 40 CFR 63.626(a)]

F.20. Compliance Test Fuel Requirement. 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.19**. 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(8)(a), and 62-4.070(3), F.A.C.]

{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}

F.21. Fuel Sulfur Content Test Requirement. If testing is conducted while firing fuel oil in the dryer, compliance with the sulfur content requirement of Condition F. 4. shall be demonstrated during the test by submitting a Certificate of Fuel Oil Analysis from your fuel oil vendor or a fuel oil sample analysis of the fuel used during the compliance test. [Rule 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

F.22. Feed Rate Recordkeeping. 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.14**. and then by processing according to 40 CFR 60.224(b)(3). [40 CFR 60.223(b)]

F.23. Fuel Oil Sulfur Content Recordkeeping. In order to document continuing compliance with the maximum sulfur content requirement of Condition **F.4.,** 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.24. Scrubber Operation Log. 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 (c), F.A.C.]

F.25. Daily and Monthly Log. 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% P2O5);

e. the DAP production, in tons;

f. the DAP production rate, tons per hour (daily average basis; as 100% P2O5);

g. the quantity of natural gas and the quantity of No. 6 fuel oil utilized in the dryer (ft3 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.16.**, **F.27.**, **F.30.**, **F.31.**, **F.32.** & **F.33.**) as well as 40 CFR 63, Subpart A, for additional recordkeeping requirements.}*

F.26. 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.16.**, **F.27.**, **F.30.**, **F.31.**, **F.32.** & **F.33.**) as well as 40 CFR 63, Subpart A, for additional monitoring and recordkeeping requirements during performance tests.}*

F.27. Method of Calculating P_2O_5 Feed Rate. 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.28. Notification Requirements. 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]

F.29. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Other Requirements & Exemptions

F.30. Compliance Schedule. 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 ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB dated 05/15/2015 (Attachment B). [40 CFR 63.631, ASP Request 15-U-AP]

F.31. Determining Allowable Range of Scrubber Operation Parameters. 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(d). 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(d). 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(d). 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(d)]

F.32. Maintaining Allowable Range of Scrubber Operation Parameters. 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(d), as indicated in Condition **F.16**. [40 CFR 63.625]

F.33. Determination of Total Fluoride Emissions. The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.626(d), based on the equivalent P_2O_5 computed as indicated in 40 CFR 63.626(f)(3). [40 CFR 63.626(d)]

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
045	Molten Sulfur System – Stack 45 (Pit A), 2000 ton Molt Sulf Pit
046	Molten Sulfur Storage - Vent 44 from 6,000 ton Tank
047	Molten Sulfur System (vent from 3000 ton Surge Tank)
050	Molten sulfur System – Stack 47 (Pit B), 300 ton Molt Sulf 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 FINAL 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}

Essential Potential to Emit (PTE) Parameters

G.1. Permitted 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), 62-204.800, 62-210.200(PTE), Air Construction Permit No. AC53-271436/PSD-FL-229]

G.2. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

G.3. Estimated Maximum Emissions. 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 No. 1050046-024-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

G.4. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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 Prohibited. 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. Excess Emissions Notification. In case of excess emissions resulting from a malfunction, the permittee shall immediately notify the Compliance Assurance Program (CAP) 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.]

Recordkeeping and Reporting Requirements

G.7. 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]

G.8. Modification Report. 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.]

G.9. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Subsection H. Emissions Unit 051

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
	RESERVED

The Package Watertube Boiler was used during cold start-up of the sulfuric acid plant(s) and for make-up steam during times the sulfuric acid plant(s) were operating below capacity and it was routinely fired for maintenance purposes. The maximum steam capacity of this boiler was 50,000 pounds per hour. This boiler was 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 was 64.0 MMBtu per hour. Fuel oil were fired only during natural gas curtailment at a maximum of 400 hours per year.

{Permitting notes:

1. *This emissions unit was 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.*
2. *The boiler was removed from the permit at the applicant's request as being no longer in service.*
3. *This Section III, Subsection H is kept as reserved.*
4. *All above information will be removed in the next permitting action.}*

Subsection I. Emissions Unit 052

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
052	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: This emissions unit is regulated under Rule NESHAP 40 CFR 61 Subparts A and R and NESHAP 40 CFR 63 Subpart BB}

Essential Potential to Emit (PTE) Parameters

I.1. 40 CFR 61 Subparts A and R. The permittee shall comply with NESHAP 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) and NESHAP 40 CFR 60 – Subpart BB (National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants) attached to this permit.

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
074	New Stationary Emergency CI RICE

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	Engine Location/Purpose
Deutz (Emergency)	113	After June 12, 2006	South Stack Seepage Pump
Caterpillar, Model No: 3054C (Emergency)	83	After June 12, 2006	Main Office Power
Caterpillar, Model Number C15 ACERT (Non-Emergency)	580	After June 12, 2006	1-R Well
Caterpillar Model No: S9L00659	460	After June 12, 2006	SW of DAP3 Plant
Caterpillar, Model No: E6J0033J	66	After June 12, 2006	Ridgewood Substation/ Generator Power Plant, North of Highway 60 at entrance road
Caterpillar, Model No: C4.4 ACERT	156	After June 12, 2006	RO Plant NE of Phosphoric acid plant

("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.)*

Engines	**Applicable NSPS 40 CFR 60 Subpart IIII Appendix**
Deutz, Caterpillar 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).
Caterpillar Model C15ACERT	Appendix NSPS 40 CFR 60 Subpart IIII , Condition Set IIIIE (Owner/operator 2007 and later model, non-emergency, less than 30L per cylinder).

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

Federal Rule Requirements

J.1. 40 CFR 60, Subpart IIII Requirements. The emergency diesel engine included in this emissions unit is subject to the applicable requirements contained in 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE) and 40 CFR 60, Subpart A - General Provisions. The applicable requirements for each engine (based on category and HP rating) are shown in Appendix NSPS - 40 CFR 60, Subpart IIII - Summary of Requirements. [Rule 62-4.070(3), F.A.C.; 40 CFR 60 Subpart A and 40 CFR 60 Subpart IIII]

{Permitting Note: See "Appendix NSPS-40 CFR 60, Subpart A" and "Appendix NSPS-40 CFR 60, Subpart IIII"}

J.2. Emission Standards for Emergency CI ICE. Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. [40 CFR 60.4205(c)]

J.3. Fuel Requirements. Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. The requirements of 40 CFR 80.510(c) are: Sulfur: 15 ppm max; Min Cetane Index: 40; and Max aromatic content: 35% volume percent. [40 CFR 60.4207(b)]

Monitoring Requirements for Emergency Engines

J.4. Hour Meter. If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]

Compliance for Emergency Engines

J.5. Continuous Compliance. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4205 over the entire life of the engine. [40 CFR 60.4206]

J.6. Compliance Requirements:

1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

2) Change only those emission-related settings that are permitted by the manufacturer;

3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you;

4) If you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating table in table 3 to this subpart and must comply with the emissions standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4205(c), for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

[40 CFR 60.4211(c)]

Recordkeeping and Reporting Requirements

J.7. Corrective Action Record. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40 CFR 60.4214(c)]

J.8. Hours of Operation Record. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
075	Existing Emergency CI RICE > 500 hp
076	Existing Emergency CI RICE < or equal to 500 hp
077	Existing Non-Emergency CI RICE > 100 hp
078	Existing Non-Emergency CI RICE <100 hp

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

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
Caterpillar, Model: 3126	220	Prior to June 12, 2006	R1 Canal Emergency Pump
Caterpillar, Model: 3304 PC	155	Prior to June 12, 2006	No. 5 SAP Generator
Caterpillar, 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	E/I Bldg Generator
Cummins, Model 6CTA8.3-G2	288	Prior to June 12, 2006	Safety Bldg Generator NE Corner of Fitness Center
Cummins, Model: 4BT3.9-G4	93	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, 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
Catepillar, Model WRH0381	700	Prior to June 12, 2006	Pump Collection Area into II-C Pump (II-C Northwest)
Cummins, Model 6CTA8.3-G2	288	Prior to June 12, 2006	No. 4 Tower Substation

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
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

** 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).)*

*** Rented*

{Permitting Notes:

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

These emergency and general purpose stationary compression ignition (CI) internal combustion engines (shown above) have been exempted from the requirements to obtain an air construction permit because they 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, they are included in this permit as regulated emission units because, based on their date of manufacture/construction, these are subject to federal rule NESHAP 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.

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).

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).}

Essential Potential to Emit (PTE) Parameters

K.1. Federal National Emissions Standards for Hazardous Pollutants (NESHAP) Requirements. The stationary emergency CI RICE engines listed above (EU Nos. 075, 076, 077 & 078) are subject to and shall comply with the applicable requirements of Federal NESHAP 40 CFR 60 Subpart ZZZZ (National Emissions Standards for Hazardous Pollutants for Stationary Reciprocating Internal Combustion Engines), and 40 CFR 63 Subpart A (General Provisions for 40 CFR 63), as adopted by reference in Rule 62-204.800(11), F.A.C. The applicable requirements of Subpart ZZZZ are included in the following specific conditions of this subsection (as referenced under the conditions in the bracketed rule basis). [Rule 62-204.800(11), F.A.C.; NSPS 40 CFR 63 Subparts A and ZZZZ]

Essential Potential to Emit Parameters

K.2. Hours of Operation.

a. Emergency Situations - There is no time limit on the use of emergency stationary RICE in emergency situations. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6640(f)(1)(i)]

b. Maintenance and Testing - These engines are authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units are limited to 100 hours per year. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6640(f)(1)(ii)]

c. Non-emergency Situations - These engines are authorized to operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6640(f)(1)]

d. Other Situations - These engines cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6640(f)(1)]

e. Engine Startup - During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for the appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6625(h)]

Emission Limitations and Operating Requirements

K.3. Work or Management Practice Standards.

a. Oil - Change oil and filter every 500 hours of operation or annually, whichever comes first or use an oil analysis program to extend this interval, as provided in f., below. [Rule 62-204.800(11)(b), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ Table 2d and footnote 1]

b. Air Cleaner - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. [Rule 62-204.800(11)(b), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ Table 2d]

c. Hoses and Belts - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [Rule 62-204.800(11)(b), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ Table 2d]

d. Operation and Maintenance - Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution, control practice for minimizing emissions. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6625(e)]

e. Engine Startup - During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6625(h)]

f. Oil Analysis - The owner or operator has the option of using oil analysis to extend the change requirement. The oil analysis must be performed at the same frequency specified for changing the oil. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent of water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent of water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6625(i)]

Monitoring of Operations

K.4. Hour Meter. The owner or operator shall install a non-resettable hour meter if one is not already installed. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6625(f)]

Compliance

K.5. Continuous Compliance. Each unit shall be in compliance with the operating standards in this section at all times. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6605(a)]

K.6. Operation and Maintenance of Equipment. At all times the owner or operator must operate and maintain, any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6605(b)]

Recordkeeping Requirements

K.7. Notification, Performance and Compliance Records.

a. A copy of each notification and report that the owner or operator submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the owner or operator submitted.

b. You must keep the records required in Table 6 of the NESHAP, 40 CFR 63 Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies to you.

c. The owner or operator must keep the records required in 40 CFR 63.6625(e) of this section to show continuous compliance with each emission limitation or operating requirement.

d. The owner or operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

[Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6655]

K.8. Malfunction Records.

a. Records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the air pollution control and monitoring equipment.

b. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b) of this section including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6655]

K.9. Maintenance Records:

a. Records of all required maintenance performed on the air pollution control and monitoring equipment.

b. The owner or operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to its own maintenance plan.

[Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6655]

K.10. Record Retention.

a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.

b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[Rule 62-204.800(11)(b) and (d), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6660, and Subpart A 40 CFR 63.10(b)(1)]

K.11. Emergency Situation. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required of this section, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [Rule 62-204.800(11)(b), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ Table 2d, footnote 2]

Other Federal Requirements

K.12. 40 CFR 63, Subpart A. In addition to the above requirements, this emissions unit shall also comply with the applicable requirements listed below, which are contained in the attached Appendix NESHAP 40 CFR 63, Subpart A - General Provisions.

General Provisions Citation	Subject of Citation
§63.1	General applicability of the General Provisions
§63.2	Definitions. Additional terms defined in §63.6675.
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction
§63.6(a)	Applicability
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources
§63.6(b)(5)	Notification
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources
§63.6(c)(1)–(2)	Compliance dates for existing sources
§63.6(c)(5)	Compliance dates for existing area sources that become major sources
§63.6(f)(2)	Methods of determining compliance
§63.6(f)(3)	Finding of compliance
§63.6(g)(1)	Use of alternate
§63.6(i)	Compliance extension procedures and criteria
§63.6(j)	Presidential compliance exemption
§63.7(a)(3)	CAA section 114 authority
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA
§63.9(a)	Applicability and State delegation of notification requirements
§63.9(i)	Adjustment of submittal deadlines
§63.9(j)	Change in previous information
§63.10(a)	Administrative provisions for recordkeeping/reporting
§63.10(b)(1)	Record retention
§63.10(b)(2)(xii)	Records when under waiver
§63.10(b)(2)(xiv)	Records of supporting documentation
§63.10(b)(3)	Records of applicability determination
§63.10(d)(1)	General reporting requirements
§63.10(d)(4)	Progress reports
§63.10(f)	Waiver for recordkeeping/reporting
§63.12	State authority and delegations
§63.13	Addresses
§63.14	Incorporation by reference
§63.15	Availability of information

[Rule 62-204.800(11)(b), F.A.C.; NESHAP Subpart ZZZZ 40 CFR 63.6665]

Subsection L. Emissions Unit 073

The specific conditions in this section apply to the following emissions unit:

EU No.	Brief Description
073	NG Fired 75 mmBTU/hr boiler at Greenbay

This emission unit is natural gas fired boiler to provide heating of the water in the reverse osmosis (RO) plant at Mosaic Green Bay Site – A part of the Mosaic Bartow Facility. The boiler is fired on natural gas with the low sulfur distillate # 2 oil as backup with a maximum design heat input rate of 75 mmBtu/hr.

This boiler is subject to the New Source Performance Standard (NSPS) Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) contained in 40 CFR 60 and Rule 62-296.406, F.A.C., as it applies to fossil fuel steam generators with less than 250 mmBtu/hr heat input, new and existing emission units.

{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.}

Essential Potential to Emit (PTE) Parameters

L.1. Permitted Capacity. The maximum allowable heat input rate for this boiler is 75 mmBtu/hour. [Rule 62-210.200 (Definition of Potential to Emit), F.A.C., Air Construction Permit No. 1050046-030-AC]

{Permitting Note -The permittee is not required to keep routine records to demonstrate compliance with this limitation, as this represents the manufacturer's maximum rated heat input rate.}

L.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

L.3. Methods of Operation. This boiler is permitted to be fired with natural gas with distillate # 2 oil as backup fuel. The distillate # 2 oil maximum sulfur content shall not exceed 0.05 percent, by weight. [BACT Determination dated 03/11/2011 for particulate matter (PM) and sulfur dioxide (SO_2) emissions made for this boiler in accordance with Rule 296.406(2) & (3), F.A.C.; Air Construction Permit No. 1050046-030-AC]

L.4. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year) while on natural gas firing; however the hours of operation are limited to 400 hours per year while on distillate # 2 oil firing. [Rules 62-4.070(3) and 62-210.200(Definition of Potential to Emit), F.A.C.; Air Construction Permit No. 1050046-030-AC]

Emission Limitations and Standards

{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Unless otherwise specified, the averaging time for Specific Condition **L.5.** is based on the specified averaging time of the applicable test method.

L.5. Visible Emissions. Visible emissions shall not exceed 20% except for one six-minute period per hour during which opacity shall not exceed 27%. [Rule 62-296.406(1), F.A.C.; Air Construction Permit No. 1050046-030-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

L.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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]

Monitoring of Operations

L.7. Fuel Usage Meter. This emissions unit shall have its own natural gas usage meter/distillate # 2 oil meter in order to determine the amount of natural gas/distillate # 2 oil combusted/inputted, in cubic feet/gallons respectively. *(See also Specific Condition Nos. **L.13**. and **L.14**. for testing period heat input rate reporting requirement, and fuel usage recordkeeping requirement.)* [Rule 62-4.070(3), F.A.C.; Air Construction Permit No. 1050046-030-AC]

Test Methods and Procedures

{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

L.8. Test Methods. When required, tests shall be performed in accordance with the following reference method:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above method is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60, Appendix A; Construction Permit 1050046-030-AC]

L.9. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

L.10. Compliance Tests Prior To Renewal. Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see condition **TR7.b.(3)** in Appendix TR – Facility-wide Testing Requirements), a compliance test shall be performed for Visible Emissions prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in Specific Condition **L.5.** [Rules 62-210.300(2)(a) and 62-297.310(8)(b) F.A.C.]

{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}

L.11. Visible Emissions Compliance Test Requirements. Testing of visible emissions (VE) to show compliance with the visible emission limitation of Specific Condition No. **L.5.** shall be conducted in accordance with the applicable requirements specified in Chapter 62-297, F.A.C. Testing shall be conducted when the boiler is cycling up to a normal high firing rate. The test observation period shall be a minimum of 60 minutes in duration and shall include the period during which the highest opacity emissions can reasonably be expected to occur. All test reports shall include identification of the boiler and estimated heat input rate (mmBtu/hour) during the test. Failure to submit the heat input rate and actual operating conditions in the test report may invalidate the test and fail to provide reasonable assurance of compliance. [Rules 62-4.070(3) and 62-297.310 (5)(b), F.A.C.]

L.12. Compliance Test Notification. The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required compliance tests. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and the telephone number of the person conducting the test. [Rules 62-4.070(3) and 62-297.310(9), F.A.C.]

{Permitting Note - The notification should also include the relevant emission unit ID No(s), test method(s) to be used, and pollutants to be tested.}

Recordkeeping and Reporting Requirements

L.13. Compliance Test Reports. The permittee shall prepare and submit reports for all required compliance tests in accordance with the requirements specified in Chapter 62-297, F.A.C. The permittee shall submit a statement of the fuel being used and the estimated fuel heat input rate (mmBtu/hour) during the test period as a part of the compliance test report. Failure to submit the fuel type and heat input rate, or operating at conditions which do not reflect the normal operating conditions, may invalidate the test and fail to provide reasonable assurance of compliance. [Rules 62-4.070(3), and 62-297.310(10), F.A.C.]

L.14. Monthly Fuel Usage Records. Pursuant to NSPS Subpart Dc 40 CFR 60.48c, the permittee is required to maintain records of the amount of natural gas (or any other fuel) combusted in the boiler. In accordance with 40 CFR 60.48(g)(2), records of the amount of natural gas and distillate # 2 oil burned during each calendar month and consecutive 12-months rolling average shall be kept. An entry shall be made in the log no later than 15 days after the end of each calendar month. These records shall be recorded in a permanent form suitable for inspection onsite by the Department upon request, and shall be retained for at least a two (2) year period. [Rules 62-4.160(14)(b), and 62-204.800(8)(b), F.A.C.; NSPS Subpart Dc - 40 CFR 60.48c(g)(1) and (2)]

L.15. Monthly/Yearly Operating Hours Records. Pursuant to Specific Condition No. **L.4.** above, the permittee is required to maintain records of hours the boiler was fired on distillate # 2 oil during each calendar month and consecutive 12-months rolling average. An entry shall be made in the log no later than 15 days after the end of each calendar month. These records shall be recorded in a permanent form suitable for inspection onsite by the Department upon request, and shall be retained for at least a five (5) year period. [Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C.]

L.16. Fuel Supplier Certification. Compliance with the emission limits or fuel oil sulfur limits may be determined based on a certification from the fuel supplier. For distillate No. 2 oil, the certification shall include the following information:

a) The name of the oil supplier;
b) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and,
c) The sulfur content or maximum sulfur content of the oil.

[Rule 62-204.800(b), F.A.C.; NSPS Subpart Dc – 40 CFR 60.42c(h) and 60.48c(f)]

L.17. Semi-Annual Reporting. A report meeting the requirements of 40 CFR 60.48c(e), shall be sent to the Air Compliance Section of the Southwest District Office of the Department every six months. The reporting period is defined by the Department as from January 1 to June 30 & from July 1 to December 31 of each calendar year. If fuel supplier certification is used to demonstrate compliance (see Specific Condition **L.16.**) the report shall include a certified statement signed by the owner or operator that the records of fuel supplier certifications submitted represent all the fuel combusted during the reporting period. The reports shall be postmarked by the 30th day following the end of the reporting period. [Rule 62-4.070(3), F.A.C.; 40 CFR 60.48c(d)(e)(j)]

L.18. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NESHAP - 40 CFR 61, Subpart A – NESHAP General Provisions
Appendix NESHAP - 40 CFR 61, Subpart R – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Radon Emissions from Phosphogypsum Stacks
Appendix NESHAP - 40 CFR 63, Subpart A – General Provisions
Appendix NESHAP - 40 CFR 63, Subpart AA - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Phosphoric Acid Plants
Appendix NESHAP - 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Phosphate Fertilizer Production Plants
Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)
Appendix NESHAP - 40 CFR 63, Subpart ZZZZ – Facility Applicable Requirements
Appendix NSPS - 40 CFR 60, Subpart A - General Provisions.
Appendix NSPS - 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
Appendix NSPS - 40 CFR 60, Subpart H – Standards of Performance for Sulfuric Acid Plants
Appendix NSPS - 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
Appendix NSPS - 40 CFR 60, Subpart IIII – Facility Applicable Requirements
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, List of Unregulated Emissions Units and/or Activities.