Mosaic Fertilizer, LLC
Riverview Facility

Facility ID No. 0570008
Hillsborough County

Draft Title V Air Operation Permit Renewal

Permit No. 0570008-066-AV
Renewal of Title V Air Operation Permit No. 0570008-063-AV

Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Southwest District

13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Telephone: (813) 632-7600
Fax: (813) 632-7668

Compliance Authority:

Environmental Protection Commission
Of Hillsborough County

3629 Queen Palm Drive
Tampa, FL 33619

Telephone: (813) 627-2600
Fax: (813) 627-2660

Draft Title V Air Operation Permit Renewal

Operation Permit No. 0570008-066-AV

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DRAFT PERMIT

PERMITTEE:
Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, Florida 33547

Permit No. 0570008-066-AV
Riverview Facility
Facility ID No. 0570008
Title V Air Operation Permit Renewal

The purpose of this Permit is to renew the Title V air operation Permit for the above referenced facility. The existing Riverview Facility is located in Hillsborough County at 8813 US Highway 41 South, Riverview, Florida. UTM Coordinates are: Zone 17, 364.69 East and 3082.38 North. Latitude is: $27^0$51'39" North; and, Longitude is: $82^0$23'21" 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, 62-213. The above named Permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this Permit.

Effective Date: DATE, 2011*
Renewal Application Due Date: Exp. DATE -225, 2011*
Expiration Date: Eff. DATE + 5 years, 2016*

DRAFT

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

*Dates will be inserted in the Final Permit

CZT/qn/pp

Subsection A. Facility Description.

This facility consists of several industrial processes that convert insoluble rock containing phosphorus ore into a soluble form suitable for agricultural use. The processes consist of one phosphoric acid plant (two trains), two ammoniated phosphate (AP) plants, three sulfuric acid plants, one material handling system, one auxiliary boiler, two animal feed plants, a molten sulfur storage and handling system and emergency compression ignition (CI) reciprocating internal combustion engines (RICE).

The following activities are undertaken to produce fertilizer with water-soluble phosphorus and nitrogen values.

1. Phosphate rock delivered by railcar is unloaded, conveyed to storage, and ground by rotary ball mills.
2. Molten sulfur is burned under controlled stoichiometry to produce sulfuric acid.
3. Ground phosphate rock is acidulated with sulfuric acid, producing wet process phosphoric acid and byproduct calcium sulfate (gypsum) with release of fluoride compounds, including HF.
4. The phosphoric acid, which is approximately 30% by weight phosphorus expressed as P_2O_5, is sent to evaporators for concentration to 54%.
5. Ammoniated phosphate (AP) are produced by combining blended 54% and 30% phosphoric acid with ammonia in various mole ratios to produce mono-ammonium phosphate (MAP) or di-ammonium phosphate (DAP).
6. AP products are conveyed to dry storage buildings by trip conveyors, dropped to storage piles. These storage buildings store, handle and loadout AP product to conveyors and associated transfer equipment, such as bulk toters, feed and loadout elevators, mini bin system, and ribbon blender to load ships, barges, railcars, trucks and containers.

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

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
004	No. 7 Sulfuric Acid Plant
005	No. 8 Sulfuric Acid Plant
006	No. 9 Sulfuric Acid Plant
007	No. 6 AP Plant
043	Auxiliary Steam Boiler
051	West Bag Filter
052	South Baghouse
053	Vessel Loading System – Tower Baghouse
055	No. 5 Granulation Plant
058	Building # 6 Belt to Conveyor # 7 Transfer Point
059	Conveyor # 7 to Conveyor # 8 Transfer Point with Baghouse
060	Conveyor No. 8 to Conveyor No. 9 Transfer Point with Baghouse
061	East Vessel Loading Facility - Shiphold/Chokefeed
063	Molten Sulfur Storage and Handling System – Tank #1, 2 and 3
066	Molten Sulfur Storage and Handling System -- Pit #7

067	Molten Sulfur Storage and Handling System -- Pit #8
068	Molten Sulfur Storage and Handling System -- Pit #9
073	Phosphoric Acid Production Facility
074	Molten Sulfur Storage and Handling System -- Truck Loading Station
075	AP Storage Building Nos. 2, 4, 5 & 6
076	Loadout between Buildings 2 & 4
077	Loadout adjacent to Building 6
078	Animal Feed Ingredient (AFI) Plant No. 1
079	Diatomaceous Earth (DE) Silo
080	Limestone Silo
081	Animal Feed Plant (AFI) Loadout System
103	Animal Feed Ingredient (AFI) Plant No. 2
104	Phosphogypsum Stack North (No. 1)
108	Phosphogypsum Stack South (No 2.)
109	Clarifier and Storage Tanks
111	Existing Emergency Stationary RICE < or equal to 500 HP
Unregulated Emissions Units and Activities	
105	Facility-Wide Fugitive Emissions

Subsection C. Applicable Regulations.

Based on the Title V Air Operation Renewal application received on 10/18/2010, the existing facility continues to be a major source of hazardous air pollutants (HAPs). This facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. This facility is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) of 40 CFR 61, Subpart A – General Provisions, and Subpart R – National Emission Standards for Radon Emissions from Phosphogypsum Stacks. This facility is subject to the NESHAP standards of 40 CFR 63, Subpart A – General Provisions, Subpart AA – NESHAPs from Phosphoric Acid Manufacturing Plants, Subpart BB – NESHAPs from Phosphate Fertilizers Production Plants and Subpart ZZZZ – NESHAPs for Stationary Reciprocating Internal Combustion Engines (RICE). The facility is also subject to the New Source Performance Standards (NSPS) of 40 CFR 60, Subpart A – General Provisions, and 40 CFR 60, Subpart H – Standards of Performance for Sulfuric Acid Plants. This facility is not subject to Title IV (Acid Rain Program). This facility is subject to the CAM (Compliance Assurance Monitoring) standards of 40 CFR 64. A summary of applicable regulations is shown in the following table.

Regulation	**EU No(s).**
40 CFR 60, Subpart A	004, 005, 006
40 CFR 60, Subpart H	004, 005, 006
40 CFR 61, Subpart R	104, 108
40 CFR 63, Subpart AA	073
40 CFR 63, Subpart BB	007, 055

40 CFR 63, Subpart ZZZZ	111
Rule 62-296.402, F.A.C.	004, 005, 006
Rules 62-296.403 and 62-296.705, F.A.C.	007, 055
Rules 62-296.406, 62-296.700, and 62-296.702, F.A.C.	043
Rules 62-296.700 and 62-296.711, F.A.C.	051, 052, 053, 058, 059, 060, 061
Rule 62-296.411, F.A.C.	063, 066, 067, 068, 074
Rules 62-212.300, 62-212.400, 62-296.320, 62-296.700, 62-296.711, F.A.C.	078, 079, 080, 081, 103
Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.	All

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. Not federally Enforceable. 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.]

{Permitting Note: Nothing is deemed necessary and ordered at this time.}

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. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement.

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

FW5. 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 sand blasting when practical.
b. All outside fertilizer conveyor belts are covered.
c. Use street cleaning equipment to remove dirt from paved areas.
d. Keep covers on process equipment.
e. Prompt cleanup of dry rock spills.
f. Post speed limit on plant roads.
g. Fertilizer products are stored inside buildings.
h. Product material transfer points are enclosed.

[Rule 62-296.320(4)(c), F.A.C.]

Annual Reports and Fees

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

FW6. Annual Operating Report. The Permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year.

[Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download 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.

[Rule 62-213.205, F.A.C.]

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 (3)(b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA).

a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.
d. Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to: Department of Community Affairs, Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9921, Fax: (850) 488-1739.
e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
f. Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.
g. Send the required annual registration fee using approved forms made payable to: Cashier, Department of Community Affairs, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

NOTE to PERMITTEE:

This Permit includes a subsection for each emission unit or each group of emission units, which includes a description of that unit or group of units. That description is descriptive only and is not enforceable.

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

EU No.	Brief Description
-004	No. 7 Sulfuric Acid Plant
-005	No. 8 Sulfuric Acid plant
-006	No. 9 Sulfuric Acid Plant

Sulfuric Acid Plants (SAPs) No. 7, No. 8, and No. 9 have a design capacity of 3200 TPD, 2700 TPD, and 3400 TPD of 100% sulfuric acid, respectively. These plants are sulfur burning, double conversion, double-absorption plants of Leonard-Monsanto design. Sulfur is burned with dried atmosphere oxygen to produce sulfur dioxide. The sulfur dioxide is catalytically oxidized to sulfur trioxide over a catalyst bed. The sulfur trioxide is then absorbed in sulfuric acid. The remaining sulfur dioxide, not previously oxidized, is passed over a final converter bed of catalyst and the sulfur trioxide produced is then absorbed in sulfuric acid. Sulfur Dioxide emissions not absorbed by the double absorption systems are vented through 150 foot stacks and acid mist is controlled by mist eliminators.

The Converter, Superheater No. 3 and Cold Interpass Exchanger of SAP No. 8 were recently replaced. The No. 8 SAP converter is a Fleck Chemical Industries, Inc. converter. The converter contains Bed Nos. 1 through 4 in one unit. The new converter is designed to load up to 615,826 liters of catalyst. The catalyst that is used in the converter is VK-38 vanadium catalyst produced by Haldor Topsoe Inc. The No. 3 Superheater at the No. 8 SAP was manufactured by Technotherm Corporation. The No. 8 SAP cold interpass exchanger was manufactured by Aker Kvaerner Chemetics. The list of equipment stated above does not have model numbers since these are all custom pieces of equipment. A 153 MMBtu/hr natural gas burner was added to the sulfuric acid plant area. This natural gas burner is in addition to an existing 140 MMBtu/hr oil burner. The oil burner is fired with No. 2 fuel oil with a maximum sulfur content of 0.5%. Either the oil burner or the natural gas burner (removable auxiliary burner) provides the necessary heat during the cold startup of any of the Sulfuric Acid Plant (SAP) Nos. 7, 8 or 9. Typically each SAP experiences 3 cold startups per year and 13,000 gallons of No. 2 fuel oil is used per startup.

{Permitting notes: This emissions unit is regulated under NSPS standards of 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants, adopted and incorporated by reference in Rule 62-204.800(8), 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.}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum sulfuric acid production rate shall not exceed any of the following:

EU No.	Maximum Production Rate, Tons per day of 100% H_2SO_4	Fuel Type
004	3200 (24-hr basis)	Natural Gas, No. 2 Fuel Oil
005	2700	Natural Gas, No. 2 Fuel Oil
006	3400	Natural Gas, No. 2 Fuel Oil

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-296.405, F.A.C.; Construction Permits 0570008-025-AC / PSD-FL-250 and 0570008-036-AC / PSD-FL- 315]

A.2. Methods of Operation.
Fuels. The fuels that are allowed to be burned in these units are:
(1) Natural gas,
(2) No. 2 fuel oil with a maximum sulfur content of 0.5% by weight.
[Rule 62-213.410, F.A.C.; Construction Permit 0570008-057-AC]

A.3. Hours of Operation. The natural gas burner for Sulfuric Acid Plants (SAPs) 7, 8 & 9 cold start-up will operate no more than 200 hours per year. The SAPs 7, 8 & 9 may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.; Construction Permits 0570008-025-AC, 0570008-036-AC & 0570008-057-AC]

A.4. Fuel Usage. The natural gas usage shall not exceed 30,000,000 standard cubic feet of natural gas per 12 consecutive month period based on a natural gas heat content of 1,020 Btu/standard cubic foot.
[Rules 62-213.440(1) and 62-210.200 (PTE), F.A.C.]
{Permitting Note: As established in Title V Permit 0570008-063-AV}

A.5. 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 Conditions **A.8.** and **A.9.** is based on the specified averaging time of the applicable test method.

A.6. Visible Emissions – Normal Condition. Visible emissions from each SAP shall not exceed 10% opacity (except during start-up, shutdown, or malfunction, pursuant to Rule 62-210.700, F.A.C.
[62-296.402 and 62-210.700, F.A.C.; Construction Permit 0570008-057-AC]

A.7. Visible Emissions – Exceptional Condition. Visible emissions from each SAP not to exceed 40% opacity are allowed for a thirty (30) minute during the plant start-up.
[Section 1-3.63(a) of the Rules of Environmental Protection Commission of Hillsborough County; Construction Permit 0570008-057-AC]

A.8. Sulfur Dioxide Emissions Limitations. Sulfur dioxide (SO_2) emissions from each sulfuric acid production unit shall not exceed any of following:

Sulfuric Acid Plant	**Emission Rate**		
	lb/ton of 100% of H_2SO_4	**pounds per hour**	**Tons per Year**
No. 7 (3-hour avg.)	4	533	
No. 7 (24-hour avg.)	3.5	467	2044
No. 8 (3-hour avg.)	4, 3-hr block average	450.0	
No. 8 (24-hour avg.)	3.5, 24-hr block average	315	1,379.7
No. 9 (3-hour avg.)	4, 3-hr block average	566.7	
No. 9 (24-hour avg.)	3.5, 24 block average	495.8	2,171.8

[References: No. 7 Sulfuric Acid Plant: Rules 62-296.402(2)(b) and 62-204.800, F.A.C., 40 CFR 60.82(a) and Construction Permit 0570008-025-AC/PSD-FL-250. Nos. 8 and 9 Sulfuric Acid Plant: Rules 62-296.402(2)(b) and 62-204.800, F.A.C., 40 CFR 60.82(a), Construction Permits AC29-241660/PSD-FL-209, 057008-036-AC/PSD-FL-315 and 0570008-060-AC]

A.9. Sulfuric Acid Mist Emissions Limitations. Sulfuric Acid Mist (SAM) emissions expressed as H_2SO_4, from each sulfuric acid production unit shall not exceed any of following:

H_2SO_4 Plant	Emission Rate		
	lb/ton as 100% H_2SO_4	pounds per hour	Tons per Year
No. 7	0.12	16	70
No. 8	0.10	5.6	24.5
No. 9	0.10	14.2	62.1

[References: No. 7 Sulfuric Acid Plant: Rules 62-296.402(2)(c) and 62-204.800, F.A.C., 40 CFR 60.83(a)(1) ; Construction Permit 0570008-025-AC/PSD-FL-250. Nos. 8 and 9 Sulfuric Acid Plant: Rules 62-296.402(2)(c) and 62-204.800(7)(b)10, F.A.C., 40 CFR 60.83(a); Construction Permits 0570008-036-AC/PSD-FL-315 and 0570008-060-AC]

A.10. Minimize 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.]

Monitoring of Operations

A.11. Maintenance of Pollution Control & Process Equipment. **Not federally enforceable.** Pursuant to Chapter 1-1.06, Rule of the Environmental Protection Commission of Hillsborough County, the permittee shall maintain the pollution control and process equipment in good repair in order to reduce reportable events and fugitive leaks which might result in elevated emissions.
[Chapter 1-1.06, Rules of the Environmental Protection Commission of Hillsborough County]

Continuous Monitoring Requirements

A.12. SO_2 CEMS Compliance Demonstration – For each of these plants, a continuous emission monitoring system (CEMS) for the measurement of sulfur dioxide (SO_2) emissions shall be calibrated, maintained and operated as specified in 40 CFR 60.84. The CEMS will be used to determine compliance with the 24-hour average emission limit for SO_2. The span value of the continuous monitor shall be set at 1000 ppm of SO_2. The CEMS shall be certified to meet Performance Specification 2 in Appendix B of 40 CFR 60 and the quality assurance procedure specified in Appendix F of 40 CFR 60.
[40 CFR 60 Appendices B and F, 40 CFR 60.7, 60.13, 60.84; Construction Permits 0570008-025-AC/PSD-FL-250 and 0570008-060-AC]

A.13. Emission Determination. The Permittee shall determine emissions in the units of the applicable standard (lb/ton) in accordance with 40 CFR 60.84(b) or (d).
[Rules 62-204.800(7)(b)10 and 62-297.500, F.A.C., and 40 CFR 60.84]

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.14. Test Methods. 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
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.
[62-297.401, F.A.C.]

A.15. 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.]

A.16. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each EU shall be tested to demonstrate compliance with the emissions standards for:

a. visible emissions
b. sulfur dioxide (Nos. 7 and 9 only)
c. sulfuric acid mist (SAM)

[Rule 62-297.310(7), F.A.C.; Construction Permit 0570008-060-AC]
{Permitting Note: SAP No. 8 sulfur dioxide emission compliance is demonstrated by CEMS. Stack testing is not required per Construction Permit 0570008-060-AC}

Recordkeeping and Reporting Requirements

A.17. Daily Records of SAP Production. In order to document compliance with Specific Condition No. A.1, the permittee shall maintain a daily record of sulfuric acid plant production rate (in TPD as 100% H_2SO_4) for each plant. These records shall be recorded in a permanent form suitable for inspection by the Department or the Environmental Protection Commission of Hillsborough County upon request.
[Rule 62-213.440(1), F.A.C.]

A.18. Fuel Recordkeeping Device(s). The Permittee shall install, calibrate, and maintain gas flow meter for the burner in order to demonstrate compliance with Specific Condition No. A.4.
[Rule 62-4.070(3), F.A.C.; Construction Permit 0570008-057-AC]

A.19. Cold Start-up. In order to document compliance with the Specific Condition No. A.3. and A.4., the permittee shall maintain, but not limited to, the following log for SAP Nos. 7, 8 and 9 during cold start-up operation on natural gas firing:

Daily

a. Facility Name, Facility ID No. (0570008), Emission Unit ID Nos. 004, 005 & 006 and Description;

b. Date;
c. Cold Start-Up Mode (Natural gas firing);
d. During start-up, Daily, record the hours of operation of the SAP 7, 8 and 9 in gas firing mode;
e. When start-up, Daily, record the quantity, in standard cubic feet, of the natural gas consumption from the gas flow meter that measured gas flow for the SAP Nos. 7, 8 and 9.

Daily records shall be completed within 5 business days.

Monthly

f. Total hours of operation in gas firing mode during SAP 7, 8 & 9 cold start-up in last consecutive 12-months;
g. Total natural gas consumption, in standard cubic feet, in last consecutive 12-months.

Monthly records shall be completed by the 15th day of the following month.
[Rule 62-4.070(3), F.A.C., Construction Permit 0570008-057-AC]

A.20. Sulfur Dioxide & Sulfuric Acid Mist Emissions. In order to document ongoing compliance with the emission limitations of Specific Condition A. 8. and A.9., the permittee shall maintain records on the Sulfuric Acid Plants. The records shall include, but not limited to, the following:

a. Facility Name, Facility ID No. (0570008), Emission Unit ID Nos. 004,005 & 006, and Description;
b. Date;

Daily

c. While operating, record the hours of operation;
d. While operating, record the H_2SO_4 production (in tons as 100% H_2SO_4);
e. While operating, record the H_2SO_4 production rate, in tons per hour (daily average);
f. 3-hour and 24-hour average of SO_2 emissions (lb/ton as 100% H_2SO_4) using the 3-hour and 24-hour average or 3-hour and 24-hour block average as appropriate;
g. daily SO_2 and sulfuric acid mist emissions (pounds/hour);

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

Monthly (Rolling 12-month period)

h. Total H_2SO_4 production (tons), total emissions of SO_2 and sulfuric acid mist (tons).

Monthly record shall be completed by the 15th day of the following month.
[Rule 62-213.440(1), F.A.C.; Construction Permit 0570008-060-AC]

A.21. Sulfur Dioxide Monitoring System Record. For each plant, in accordance with 40 CFR 60.7(b), the permittee shall maintain records of any periods during which the sulfur dioxide monitor system is inoperative. Records on monitoring system performance evaluations, calibrations and maintenance shall be maintained in accordance with 40 CFR 60.7(d). All of the above records shall be made available to the Department and the Environmental Protection Commission of Hillsborough County upon request.
[Rule 62-204.800, F.A.C., and 40 CFR 60.7]

A.22. Excess Emission Reporting. For each plant, the permittee shall submit a written report of excess sulfur dioxide emissions semi-annually in accordance with 40 CFR 60.7 (b) and (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 semi-annual sulfur dioxide excess emission report shall be submitted to the Department's Southwest District Office and the Environmental Protection Commission of Hillsborough County within 30 days following the end of reporting period pursuant to 40 CFR 60.7(c) as adopted by Section 62-204.800(7), F.A.C. The report shall contain the information specified in 40 CFR 60.7(c)(1), (2), (3) and (4).
[Rule 62-204.800, F.A.C., and 40 CFR 60.7 and 60.84(e)]

A.23. Sulfur Dioxide Control Strategy Change. Before the permittee makes a change to the SO_2 control strategy as indicated in the construction permit 0570008-025-AC/PSD-FL-250, the permittee must submit to the Department for review and approval a permit modification request to revise the Best Available Control Technology Determination (BACT).
[Rules 62-4.070 and 62-212.400, F.A.C.; Construction Permit 0570008-025-AC/PSD-FL-250]

A.24. Abnormal Event Notification. **Not federally enforceable.** Pursuant to Chapter 1-1.05, Rules of the Environmental Protection Commission of Hillsborough County, the permittee shall promptly notify* the Commission's Air Management Division of any abnormal reportable event** associated with the operation of these plants which results in elevated emissions. Notification shall include the following:

a. Facility name, Facility ID#
b. Source name, Emission Unit ID #
c. Cause (if known)
d. Time and duration of event
e. CEM reading, if applicable
f. Steps taken to reduce emissions if event is still occurring
g. Identification of person reporting the event

A reportable event shall not constitute a Permit violation strictly because it is a reportable event.
*For the purposes of this condition, prompt notification shall mean at any time prior to a cold start-up, at any time prior to or within thirty (30) minutes following a hot start-up or at any time prior to or within thirty (30) minutes following the occurrence of a reportable event.
**For the purposes of this condition, reportable events shall be deemed to occur upon the happening of the following events:

I. For all start-ups (hot or cold):
   a. The moment when the unit begins to burn sulfur.
II. For whenever the plant is burning sulfur other than during a start-up:
   a. Whenever the sulfur dioxide emissions exceed 1000 ppm for longer than a 5 minute period based on the Continuous Emission Monitoring System (CEMS).
   b. Whenever the sulfur dioxide emissions exceed 4 pounds/ton of acid produced for longer than (30) consecutive minutes based on the CEMS.
   c. Whenever the sulfur dioxide emissions exceed ten (10) pounds/ton of acid produces for longer than 10 consecutive minutes.
III. For any incident wherein the permittee receives a complaint or there is an indication or potential for a nuisance to exist.

[Chapter 1-1.05, Rules of the Environmental Protection Commission of Hillsborough County]

A.25. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Source Commitments

A.26. Best Operational Start-up Practice for SAPs. The permittee shall follow the *Memorandum of Understanding Regarding Best Operational Start-Up Practices for Sulfuric Acid Plants*; see *Attachment A.*
[Signed and executed on October 25, 1989]

Other Requirements

A.27. Federal Rule Requirements. In addition to the specific conditions listed above, these emissions units are also subject to the applicable requirements contained in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60 Subpart H – Sulfuric Acid Plants.
[Rule 62-213.440, F.A.C.]

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

EU No.	Brief Description
-007	No. 6 AP Plant

The AP (Ammoniated Phosphate) manufacturing plant has a maximum production capacity of 186 tons per hour ammoniated phosphate production.

Emissions from the reactors and granulator are controlled by the RGV venturi scrubber followed by the RGV tower tailgas scrubber and followed by ammonia vaporizer. Emissions from the dryer are controlled by the dryer venturi scrubber followed by dryer packed-tower tailgas scrubber. The dryer tailgas scrubber and vaporizer discharge through a common stack. Emissions from cooler and miscellaneous points are controlled by cooler venturi scrubber followed by cooler tailgas scrubber. The cooler tailgas scrubber discharges through a separate stack. The dryer is fired with natural gas as the primary fuel, with No. 2 fuel oil as back-up at a design rate of 80 MMBtu/hr.

{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.; 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, Rule 62-296.700, F.A.C., RACT Particulate Matter as well as Administrative Order No. 03-C-AP for alternative MACT monitoring plan (attachment B}.

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum allowable production and heat input rates are as follows:

Process Input Rate of P_2O_5	AP Production Rate	Rotary Dryer Heat Input Rate	Fuel Type
2,060 tons per day, 85.8 tons per hour daily average	4,478 tons per day, 186.6 tons per hour daily average	80.0 MMBtu/hour daily average	Natural Gas No. 2 Fuel Oil

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-296.705, F.A.C.; Construction Permit 0570008-044-AC / PSD-FL-336]

B.2. Methods of Operation.

Fuels. The fuels that are allowed to be burned in the rotary dryer are:

(1) Natural gas, and
(2) No. 2 fuel oil with a maximum sulfur content of 0.5% by weight as a back-up fuel. No. 2 fuel oil shall not be fired for more than 400 hours per year.

[Rule 62-213.410, F.A.C.; Construction Permit 0570008-057-AC.]

B.3. 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 times for Specific Conditions **B.4. - B.6.** are based on the specified averaging time of the applicable test method.

B.4. Particulate Matter (PM) Emissions Limitations. Particulate Matter (PM) emissions from this emission unit shall not exceed the following rates listed below:

a. 0.15 lb/ton of product;
b. 12.88 lbs per hour; and,
c. 56.39 tons per year.

[Rules 62-296.700(4)(b), and 62-296.705(2)(a), F.A.C.; Construction Permit 0570008-044-AC/PSD-FL-336]

B.5. Visible Emissions (VE) Limitation. Visible emissions shall not exceed 20% opacity.
[Rules 62-296.705(2)(a), F.A.C. and 62-296.320(4)(b)(1), F.A.C.]

B.6. Fluoride (F) Emissions Limitations. Fluoride (F) emissions from this emission unit shall not exceed the following rates listed below:

a. 0.035 lb/ton of 100% P_2O_5 input;
b. 3.00 pounds per hour, and,
c. 13.16 tons per year.

[40 CFR 63.622(a); Rule 62-204.800, F.A.C.; Construction Permit 0570008-044-AC/PSD-FL-336]

{Permitting Note: The fluoride emission limit in Condition B.6. is more stringent than the applicable NESHAP, 40 CFR 63.622(a) limits of less than 0.06 lb/ton equivalent P_2O_5 feed for AP production. The permittee shall comply with Attachment B – Alternative MACT monitoring plan per Administrative Order No. 03-C-AP dated 1/5/2004 and other applicable requirements of the NESHAP, 40 CFR 63, Subparts A and BB.}

Monitoring of Operations

B.7. CAM Plan. This emissions unit is subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C.
[40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., 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.8. Test Methods. 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 or 5A	Determination of Particulate Matter Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources

Method	Description of Method and Comments
13A	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A

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 62-297.401, F.A.C.]

B.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.]

B.10. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 007 shall be tested to demonstrate compliance with the emissions standards for:

a. particulate matter;
b. visible emissions;
c. fluorides (F).**

***For fluorides only*, per 40 CFR 63, Subpart A and BB; Administrative Order No. 03-C-AP dated 1/5/2004 (Attachment B).
[Rule 62-297.310(7), F.A.C. and Administrative Order 03-C-AP dated 1/5/2004 (Attachment B)]

Recordkeeping and Reporting Requirements

B.11. Additional Test Report requirements. In addition to the test report requirements in the attached Appendix TR, Facility-Wide Testing Requirements, items specified in specific conditions B.12- B.14 shall also be included in the compliance test reports.
[Rule 62-213.440(1), F.A.C.]

B.12. Production Data. A summary of the following production data shall be included in any compliance test report:

a. the production rate in tons per hour;
b. the raw material input rates and;
c. the start and end time for the rate determination.

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

B.13. Scrubber Parameters. A summary of the following scrubbers' operating parameters during any compliance test shall be included in any compliance test report:

a. The scrubber identification;
b. Type of scrubber liquid;
c. Volumetric liquid flow rate (gpm), and;
d. Total gas scrubber pressure drop (inches water gauge).

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

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

a. A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
b. A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.
[Rule 62-4.070(3), F.A.C.]

B.15. Fuel Oil Sulfur Content. In order to document continuing compliance with the fuel oil sulfur content Condition B.2, records shall be maintained of the sulfur content, in % by weight, of No. 2 fuel oil delivered for use in the dryer. On the basis of the requirements of Department of Agriculture and Consumer Services Rule 5F-2.001 (which requires that No. 2 oil sold in Florida have a maximum sulfur content not to exceed 0.5%), reasonable assurance that the sulfur content requirement is being met can also be provided through vendor supplied documentation that the fuel oil delivered for use in this dryer meets the specifications for No. 2 oil. The above records shall be maintained and made available to the Department upon request.
[Rule 62-213.440(1), F.A.C.]

B.16. Dryer Hours of Operation. In order to document compliance with the requirements of Condition B.2, the permittee shall maintain records of the dryer hours of operation while firing fuel oil.
[Rule 62-213.440(1), F.A.C.]

B.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

B.18. Operation and Maintenance (O & M) Plan. The following Operation and Maintenance (O & M) Plan for Particulate Matter Control submitted by the applicant pursuant to Rule 62-296.700(6), F.A.C., shall be followed:

Control Equipment Data

VENTURI SCRUBBERS (RGCV & DRYER)

Manufacturer:	Wellman Power Gas
Model:	N/A
Type:	Venturi Scrubbers (RGCV & Dryer)
Design total Flow:	RGCV 60,000 ACFM & DRYER 100,000 ACFM
Design Gas-to-Liquid Ratio:	RGCV 80 ACF/gal. & DRYER 115 ACF/gal.
Efficiency Rating: (at design capacity)	90%
Design Pressure Drop:	10-25" w.g.
Scrubbing Liquor Composition:	Pond water

TAILGAS SCRUBBERS (RGCV & DRYER)

Manufacturer:	Wellman Power Gas
Model:	N/A
Type:	Tail Gas Scrubbers (RGCV & Dryer) Packed Tower, Up-Flow
Design Gas-to-Liquid Ratio:	RGCV 100 ACF/gal. & DRYER 90 ACF/gal
Design total Flow:	RGCV 60,000 ACFM & DRYER 100,000 ACFM
Efficiency Rating:	99%

(at design capacity)	
Design Pressure Drop:	0.5" w.g. RGCV & 0.1" w.g. Dryer
Scrubbing Liquor Composition:	Pond water

VENTURI SCRUBBER (COOLER)

Manufacturer:	Central Maintenance and Welding, Inc.
Model:	N/A
Type:	Venturi Scrubber (COOLER)
Design total Flow:	98,000 ACFM
Design Gas-to-Liquid Ratio:	65 ACF/gal.
Efficiency Rating:	90%
(at design capacity)	
Design Pressure Drop:	13" w.g.
Scrubbing Liquor Composition:	Pond water

TAILGAS SCRUBBER (COOLER)

Manufacturer:	Wellman Power Gas
Model:	N/A
Type:	Tail Gas Scrubber (Cooler) Packed Tower, Up-Flow
Design Gas-to-Liquid ratio:	57 ACF/gal
Design total Flow:	85,000 ACFM
Efficiency Rating:	99%
(at design capacity)	
Design Pressure Drop:	8" w.g.
Scrubbing Liquor Composition:	Pond water

Process Data

Production Rate:	186.6 TPH AP
Raw Material Input:	DAP: 12 TPH NH_3 85.8 TPH P_2O_5
Fuel Usage:	80 MMBtu/hr

Inspection and Maintenance Schedule
Scrubber operating parameters recorded as specified in permit conditions. The condition of the evacuation system, scrubber pumps and piping, fans, scrubbers and scrubber packing shall be assessed every six months.

Recordkeeping Schedule
Records of inspections, maintenance, and performance parameter data shall be retained and be made available to the Department and the Environmental Protection Commission of Hillsborough County upon request.
[Rule 62-296.700(6), F.A.C., Construction Permit AC29-227826]

B.19. NESHAP Conditions. The NESHAP conditions of E.U. No. 007 are placed in Subsection M. Common Conditions.

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

EU No.	Brief Description
-043	Auxiliary Steam Generator

The 130 MMBtu per hour, Model MCF5-85 auxiliary steam generator manufactured by Murray Boiler Company is located at the sulfuric acid complex. The auxiliary steam generator is equipped to operate on natural gas or No. 2 fuel oil.

{Permitting notes: 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; Rule 62-296.700, F.A.C., RACT Particulate Matter; and Rule 62-296.702, F.A.C., Fossil Fuel Steam Generators.}

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum allowable heat input rate is 130 MMBtu/hr (Daily Average).
[Rules 62-4.160(2), 62-204.800, and 62-210.200(PTE), F.A.C.]

C.2. Fuels. The auxiliary boiler shall be fired with natural gas or new No. 2 fuel oil with a maximum sulfur content not to exceed 0.5% by weight. The term "new" oil means the oil that has been refined from crude oil and has not been used, and which may or may not contain additives. The firing of waste or recycled oil is disallowed.
[Rule 62-213.410, F.A.C.]

C.3. 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 times for Specific Conditions **C.4.-C.5.** are based on the specified averaging time of the applicable test method.

C.4. Visible Emissions (VE) Limitation. Visible emissions shall not exceed 20% opacity except as provided for in Rule 62-210.700, F.A.C., Excess Emissions.
[Rule 62.296.702(2)(b), F.A.C.]

C.5. Particulate Matter (PM) Emissions Limitations. The maximum allowable emission rate of particulate matter from the auxiliary boiler shall not exceed any of the following:

a. 0.10 pounds per million BTU;
b. 13 pounds per hour;
c. 57 TPY.

[Rule 62.296.702(2)(a), 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.}*

C.6. Test Methods. 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 62-297.401, F.A.C.]

C.7. 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.8. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 043 shall be tested to demonstrate compliance with the emissions standard for visible emissions.
[Rule 62-297.310(7), F.A.C.]

Recordkeeping and Reporting Requirements

C.9. Daily Records. In order to document compliance with the rate limitations of Condition C.1. and C.2, the Permittee shall maintain daily records of the following:

a. quantity of fuel burned
b. total hours of operation
c. the daily average heat input rate (MMBtu/hr).
d. sulfur content, in % by weight, of No. 2 fuel oil used. On the basis of the requirements of Department of Agriculture and Consumer Services Rule 5F-2.001 (which requires that No. 2 oil sold in Florida have a maximum sulfur content not to exceed 0.5%), reasonable assurance that the sulfur content requirement is being met can be provided through vendor supplied documentation that fuel oil delivered was No. 2 oil.

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

C.10. Additional Test Report Requirements. In addition to the test report requirements in the attached Appendix TR, Facility-Wide Testing Requirements, if testing is conducted while firing fuel oil, compliance with the sulfur content limitation of Condition C.2 shall be demonstrated during the visible emission compliance test by submitting either of the following with the visible emission test report:

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

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

C.11. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

C.12. Operation and Maintenance Plan for PM Control. The following Operation and Maintenance (O & M) Plan for Particulate Matter (PM) Control pursuant to Rule 62-296.700(6), F.A.C., shall be followed:

Process Data

Auxiliary Steam Generator

Manufacturer:	Murray Boiler Company, Division of Trane Company
Model No.:	MCF5-85
Heat Input Rate:	130 MMBtu per hour
Design Flow Rate:	22,000 dscfm
Gas Temperature:	420 degrees °F

Recordkeeping Schedule

Records of inspections, maintenance, and performance parameter data shall be retained and shall be made available to the Department and the Environmental Protection Commission of Hillsborough County (EPCHC) request.
[Rule 62-213.440(1), F.A.C.]

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

EU No.	Brief Description
-051	West Bag Filter
-052	South Baghouse
-053	Vessel Loading System – Tower Baghouse
-058	Building # 6 Belt to Conveyor # 7 Transfer Point
-059	Conveyor # 7 to Conveyor # 8 Transfer Point with Baghouse
-060	Conveyor No. 8 to Conveyor No. 9 Transfer Point with Baghouse
-061	East Vessel Loading Facility – Shiphold/Chokefeed

The material handling system transfers MAP, DAP, calcium phosphate animal feed, and phosphate rock from the storage buildings or rail cars to marine vessels and from the storage buildings to railcars.

Particulate matter emissions generated during the transfer of materials shall be controlled by the existing baghouses and shall be minimized through: a) covered conveyors and equipment enclosures, b) the use of a telescopic chute during ship loading, c) limiting the drop height to 2 feet during ship loading, and d) restricting the operating hours. Fugitive particulate matter emissions generated by the material handling operations shall be controlled through reasonable precautions such as the use of partial enclosures, covered conveyors, coating of products with dust suppressant, etc. Particulate matter emissions from storage buildings shall not vent outside. The belt to tower transfer point shall be evacuated to the Vessel Loading Operation - Tower Baghouse.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; Rule 62-296.700, RACT Particulate Matter; and Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operations. The following Permit conditions have been adopted from Construction Permit AC29-234652.}

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity

a. The maximum material transfer rate for the material handling system shall not exceed 1000 tons per hour (daily average).
b. The maximum ship-loading rate shall not exceed 1000 tons per hour (daily average).

[Rules 62-4.160(2), and 62-210.200, F.A.C., Definitions - (PTE); Construction Permit AC29-234652]

D.2. Methods of Operation

a. The Permittee is allowed to ship load MAP and DAP fertilizer products. Products shall be coated with a dust suppressant. Conveyors used for the transfer of MAP and DAP may operate without the existing baghouses if the product is coated with a dust suppressant.
b. The Permittee is allowed to ship load phosphate rock and calcium phosphate animal feed.
c. The Permittee is allowed to perform the railcar loading and ship loading operations simultaneously.

[Rule 62-213.410, F.A.C.; Construction Permit AC29-234652]

D.3. Hours of Operation. The hours of operation for the material handling sources shall not exceed the following:

E.U. ID No.	E.U. Description	Hours of Operation per Year
51	West Bag Filter	8000
52	South Baghouse	8000
53	Vessel Loading System – Tower Baghouse	8000
58	No. 5 Granulation Plant	4000
59	Building # 6 Belt to Conveyor # 7 Transfer Point	6000
60	Conveyor # 7 to Conveyor # 8 Transfer Point with Baghouse	6000
61	Conveyor No. 8 to Conveyor No. 9 Transfer Point with Baghouse	8000

[Rule 62-210.200, F.A.C., Definitions - (PTE); Construction Permit AC29-234652]

D.4. 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 times for Specific Conditions **D.5. – D.6.** are based on the specified averaging time of the applicable test method.

D.5. PM Emissions Limitations. The maximum allowable particulate matter emissions from the sources below shall not exceed the following limits:

E.U. I.D. No.	Baghouse/Source Description	Particulate Matter Emissions		
		Grains per DSCF	Pounds per Hour	Tons per Year
51	Flex Kleen, 100-WM-510 TR10	0.02	1.16	4.6
52	Flex Kleen, 100-WRT-64 TR10	0.03	1.16	4.6
53	Flex Kleen, 100-WRT-192 TR10	0.03	3.10	12.4
58	Fuller Company, 64 DS 8	0.02	0.62	1.2
59	Fuller Company, 64 DS 8	0.02	0.62	1.9
60	Fuller Company, 168 C 10	0.02	1.19	3.6
61	Shiphold/Chokefeed	N/A	0.10	0.42
Total:				28.7

[Construction Permit AC29-234652]

D.6. Visible Emissions (VE) Limitations. The permittee shall not cause, allow or permit any visible emissions (5% opacity) from each of the material handling sources except, visible emissions from the ship hold of up to 10% opacity are allowed.
[Rule 62-296.711(2)(a), F.A.C.]

Monitoring of Operations

D.7. Reasonable assurance for proper operation of pollution control equipment. In order to provide reasonable assurance that the pollution control equipment is operating properly, the permittee shall comply with the minimum limitation in the following table of control device parameters for the Material Handling System.

Pollution Control Equipment	Parameter	Minimum Limitation	Measurement Frequency
West Bag Filter	Visible Emissions	No Visible Emissions	Daily
South Baghouse	Visible Emissions	No Visible Emissions	Daily
Vessel Loading System – Tower Baghouse	Visible Emissions	No Visible Emissions	Daily
No. 5 Granulation Plant	Visible Emissions	No Visible Emissions	Daily
Building # 6 Belt to Conveyor # 7 Transfer Point	Visible Emissions	No Visible Emissions	Daily
Conveyor # 7 to Conveyor # 8 Transfer Point with Baghouse	Visible Emissions	No Visible Emissions	Daily

[Rule 62-213.440(1), 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.}*

D.8. Test Methods. Required tests shall be performed in accordance with the following reference method:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
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 62-297.401, F.A.C.]

D.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.]

D.10. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU Nos. 051, 052, 053, 058, 059, & 060 shall be tested to demonstrate compliance with the emissions standard for:

a. visible emissions (VE),
b. particulate matter.

Due to the expense and complexity of conducting a stack test on a minor source of particulate matter, and because these sources are equipped with baghouses, the Department, pursuant to the authority granted under Rule 62-297.620(4), F.A.C., hereby allows a visible emission limitation not to exceed an opacity of 5% in lieu of the particulate stack tests for the six baghouse exhausts.
[Rule 62-297.310(7), F.A.C.]

D.11. Annual Compliance Test for Sources Not Totally Enclosed. Test the following sources which are not totally enclosed and evacuated to a baghouse for visible emissions (VE) during each federal fiscal year (October 1 – September 30):

a. the railcar loading operation, and,
b. the ship's hold.

[Rule 62-297.310(7)(a)4, F.A.C.]

D.12. Additional 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 material handling system. 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 62-213.440(1), F.A.C.]

Recordkeeping and Reporting Requirements

D.13. Daily Records. In order to document compliance with Conditions D.1, D.3, and D.5, the permittee shall maintain daily records of the following information:

a. the source ID Number,
b. the hours of operation,
c. the amount of material transferred,
d. daily average material transfer rate (tons/hr),
e. the amount of material loaded to ships,
f. daily average ship loading rate (tons/hr),
g. the total hours of operation for the year,
h. for each period of operation, a statement of whether the dust control system (baghouses) was in service or whether dust suppressant oil was being applied to the product being processed, and
i. 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).

The records shall be made available for inspection by the Department and the Environmental Protection Commission of Hillsborough County (EPCHC) upon request.
[Rule 62-213.440(1), F.A.C.]

D.14. Additional Test Report Requirements. In addition to the test report requirements in the attached Appendix TR – Facility-wide Testing Requirements, the pressure drop across each baghouse and/or the type and amount of dust suppression oil shall be monitored during each compliance test. A summary of this data shall be included in each emissions test report.
[Rule 62-297.310(8), F.A.C.]

D.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

Operation and Maintenance Plan

D.16. Operation and Maintenance Plan for PM Control. The following Operation and Maintenance (O & M) Plan for Particulate Matter Control submitted by the applicant pursuant to Rule 62-296.700(6), F.A.C., shall be followed:

Control Equipment Data

Manufacturer:	Flex Kleen (051, 052, 053)
	Fuller Company (058, 059, 060)
Model Name/Number:	100-WM-510 TR10 (051)
	100-WM-64 TR10 (052)
	100-WM-192 TR10 (053)
	64 DS 8 (058, 059)
	168 C 10 (060)
Type:	Six Baghouses
Bag Material:	Polypropylene
Design Flow Rate	3,300 ACFM (051)
	4,500 ACFM (052)
	1,200 ACFM (053)
	3,600 ACFM (058, 059)
	6,900 ACFM (060)
Air to Cloth Ratio:	5.2:1 (051, 052, 053, 060)
	5.4:1 (058, 059)
Efficiency Rating: (at design capacity)	99.5%
Pressure Drop:	1-12" w.g.
Bag Cleaning Method:	Pulse pressure
	Pulse: Air pressure - 70-90 psig

Process Data

Material Handling Rate:	1000 TPH

Inspection and Maintenance Schedule

Records of inspections, maintenance, and performance parameter data shall be retained and shall be made available to the Department or Environmental Protection Commission of Hillsborough County (EPCHC) upon request.
[Rule 62-296.700(6)(e), F.A.C.]

Subsection E. Emissions Unit No. 055

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

EU No.	Brief Description
-055	No. 5 Granulation Plant

The ammoniated phosphate (AP) manufacturing plant (No. 5 Granulation Plant) has a maximum daily average production capacity of 156.6 tons/hr. AP is manufactured by reacting anhydrous ammonia and phosphoric acid in a sealed reaction tank and then by further adding ammonia to the ammoniated acid in a rotary reactor-granulator. The granulated un-sized AP exits the granulator and is dried in a rotary dryer. The dried material is then screened and the oversized and undersized material is recycled back to the granulator. The product is then cooled in a rotary drum cooler, screened, and sent to storage. Emissions from the process are controlled by three venturi scrubbers in parallel, then two up-flow packed-bed scrubbers exhausting into a common stack.

{Permitting notes: The No. 5 Granulation Plant Cooler was replaced as authorized by Construction Permit No. 0570008-027-AC. 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.; Administrative Order No. 03-C-AP for alternative MACT monitoring plan (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.; and Rule 62-296.700, F.A.C., RACT Particulate Matter.}

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum allowable process input, production and heat input rates are as follows:

Process Input Rate of P_2O_5, tons per hour (daily average)	Production Rate of AP (dry basis), tons per hour (daily average)	Heat Input Rate to Rotary Dryer, MMBtu/hr (monthly average)	Fuel Type
73.5	156.6	40.0	Natural Gas, No. 2 Fuel Oil

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), and 62-296.403, F.A.C.; Construction Permit AC29-196763]

E.2. Methods of Operation

a. *Fuels.* The fuels that are allowed to be burned in this unit/these units are:
   (1) Natural gas, and,
   (2) No. 2 fuel oil with a maximum sulfur content of 0.5% by weight as a back-up fuel. No. 2 fuel oil shall not be fired for more than 400 hours per year.

b. Fugitive emissions from the process, conveying and storage equipment shall be controlled by sealing and/or venting particulate and fumes from the equipment to the pollution abatement system.

[Rule 62-213.410, F.A.C.; Construction Permits AC29-196763 and AC29-238303]

E.3. 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 **E.4.**is based on the specified averaging time of the applicable test method.

E.4. Pollutant Emissions Limitations. Emissions from the No. 5 Granulation Plant shall not exceed any of the following:

Pollutant	Maximum Allowable Emissions		
	Pounds per Ton of Equiv. P_2O_5 Feed	Pound per Hour[1]	Tons per Year[1]
PM/PM_{10}		12.8	56.1
SO_2		12.7	2.6
Fluoride	0.06[2]	3.3	14.5

[1]Reference: Construction Permit AC29-238303; [2]40 CFR 63.622(a)

E.5. Visible Emissions (VE) Limitation. The visible emissions from the No. 5 Granulation Plant shall not exceed 10% opacity.
[Construction Permit AC29-196763; BACT determination dated November 25, 1991]

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.6. Test Methods. 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
6	Determination of Sulfur Dioxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
13A	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. Ammonia emissions may be determined using a modified EPA Method 6 as submitted to the Environmental Protection Commission of Hillsborough County (EPCHC) on September 12, 1989, or by any other test method agreed upon by the Department and EPCHC. ***For fluorides only,*** per Administrative Order No. 03-C-AP dated 1/5/2004 (Attachment B), the Permittee shall conduct the performance (compliance) test according to the procedures in 40 CFR 63, Subparts A and BB. No other methods may be used unless prior written approval is received from the Department.
[Rule 62-297.401, F.A.C., 40 CFR 63.626(b) and 63.630(a)]

E.7. 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.8. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 055 shall be tested to demonstrate compliance with the emissions standards for:

a. Particulates (PM/PM_{10})
b. Opacity
c. Fluoride**
d. Sulfur Dioxide*
e. Ammonia

*If fuel oil has not been used for more than 400 hours in the previous 12 months then compliance testing is not required. However, prior to Permit Renewal (i.e., test during the period of 270 days prior to and no more than 365 days prior to the expiration date of this Permit.) testing will be required pursuant to Rule 62-297.310(7)(a)3, F.A.C.

*****For fluorides only,*** per Administrative Order No. 03-C-AP dated 1/5/2004 (Attachment B), shall test annually to demonstrate compliance with the applicable emission standards in Condition E.4.
[Rule 62-297.310(7)(a)4, F.A.C., 40 CFR 63.626(a)(1) and 63.630(a)]

Recordkeeping and Reporting Requirements

E.9. Additional Test Report Requirements. In addition to the test report requirements in the attached Appendix TR, Facility-Wide Testing Requirements, the specific conditions E.10-E.12 shall also be included in the compliance test reports.
[Rule 62-213.440(1), F.A.C.]

E.10. Production Data. A summary of the following production data shall be included in any compliance test report:
a. Daily average DAP product weight in tons/hr. (dry basis).
b. Tons/hr. of P_2O_5 input.
c. Type and quantity of fuel used.
[Rule 62-213.440(1), F.A.C.]

E.11. Scrubber Parameters. A summary of the following scrubbers' operating parameters during any compliance test shall be included in any compliance test report:
a. The scrubber identification;
b. Type of scrubber liquid;
c. Volumetric liquid flow rate (gpm) and fan current (amps), and;
d. Total gas pressure drop ("w.g.).
[Rule 62-213.440(1), F.A.C.]

E.12. Certificate of Fuel Oil. If testing is conducted while firing fuel oil in the dryer, compliance with the sulfur content requirement of E.2 shall be demonstrated during the test by submitting either of the following with the test report:
a. A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
b. A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.
[Rule 62-213.440(1), F.A.C.]

E.13. Fuel Oil Sulfur Content. In order to document continuing compliance with the fuel oil sulfur content Condition E.2, records shall be maintained of the sulfur content, in % by weight, of No. 2 fuel oil delivered for use in the dryer. On the basis of the requirements of Department of Agriculture and Consumer Services Rule 5F-2.001 (which requires that No. 2 oil sold in Florida have a maximum sulfur content not to exceed 0.5%), reasonable assurance that the sulfur content requirement is being met can also be provided through vendor supplied documentation that the fuel oil delivered for use in this dryer meets the specifications for No. 2 oil. The above records shall be maintained and made available to the Department and EPCHC upon request.
[Rule 62-213.440(1), F.A.C.]

E.14. Dryer Hours of Operation. In order to document compliance with the requirements of Condition E.2, the permittee shall maintain records of the dryer hours of operation while firing fuel oil.
[Rule 62-213.440(1), F.A.C.]

E.15. Abnormal Event Reporting. **Not Federally Enforceable.** The permittee shall comply with all "abnormal events" requirements associated with these sources on a consistent basis and all abnormal events shall be reported to the Air Management Division of the Environmental Protection Commission of Hillsborough County within thirty (30) minutes of each event. "Abnormal events" would be defined as any of the following:

1. Any pipeline or vessel leak associated with the sources which results in release of uncontrolled ammonia emissions to the outside air in quantities in excess of the SARA Section 304 (Community Right-to-Know Reportable Quantity).
2. Ammonia emissions in excess of 200.0 pounds per hour during annual testing (ref. Conditions E.2.b. and E.8). The thirty-minute notification requirement above is not applicable to this item but the test report shall address actions taken to mitigate this situation.

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

E.16. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

E.17. NESHAP Conditions. The NESHAP conditions of E.U. No. 055 are placed in Subsection M. Common Conditions.

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

EU No.	Brief Description
-063	Molten Sulfur Storage and Handling System -- Tanks #1, 2, and 3
-066	Molten Sulfur Storage and Handling System -- Pit #7
-067	Molten Sulfur Storage and Handling System -- Pit #8
-068	Molten Sulfur Storage and Handling System -- Pit #9
-074	Molten Sulfur Storage and Handling System -- Truck Loading Station

The Molten Sulfur System consists of storage tank nos. 1, 2 and 3 (capacity of 19,845 tons, i.e., 18,000 Metric Tons each), covered storage pit nos. 7, 8 and 9 (capacity of 127 tons, i.e., 115 Metric Tons, 127 tons, i.e., 115 Metric Tons, and 160 tons, i.e., 145 Metric Tons respectively), a ship unloading dock, truck loading station and associated transfer pumps and piping for storage and handling of molten sulfur. A wet scrubber is used for control of emissions from the molten sulfur storage tank nos. 1, 2 and 3 as well as the truck loading station. Emissions from loading the three molten sulfur storage pits are uncontrolled, although they are equipped with covers.

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

Essential Potential to Emit (PTE) Parameters

F.1. Capacity

a. Molten sulfur from ships may be transferred to any combination of the three (3) molten sulfur storage tanks at a combined maximum total rate of 2,240 tons/hr. (daily average).

b. The three (3) molten sulfur storage tanks may receive from ships a combined maximum total of 2,277,081 tons of molten sulfur per any consecutive 12-month period.
{Permitting Note: The emissions from the three tanks shown in Table CR-EU1-G8 (12/3/2002 version) of the Title V Permit Renewal application (DEP Project No. 0570008-040-AV), represent a worst case scenario when tanks receive an equal amount of molten sulfur (3 x 759,027 tons = 2,277,081 tons). Thus, when one tank receives more than 759,027 tons per any 12 consecutive month period, the overall emissions from the three (3) tanks combined will be less than if the three (3) tanks received equal amounts.}

c. Each of the three (3) molten sulfur storage pits may receive molten sulfur from the three (3) molten sulfur storage tanks at a constant rate of 336 tons/hr. and/or by truck. The constant rate is based on the pump's operating specifications.

d. Molten Sulfur Storage Pit Nos. 7, 8, and 9 are each allowed to transfer molten sulfur to Sulfuric Acid Plant Nos. 7, 8, and 9, respectively, at a maximum throughput rate of 492,361 tons per any consecutive 12 month period.

e. The molten sulfur truck loading station may receive molten sulfur from the three (3) molten sulfur storage tanks at a constant rate of 336 tons/hr. The constant rate is based on the pump's operating specifications.

f. The molten sulfur truck loading station may load one truck at a constant rate of 336 tons/hr. The constant rate is based on the pump's operating specifications.

g. The molten sulfur truck loading station may receive from the three (3) molten sulfur storage tanks a maximum total of 800,000 tons of molten sulfur per any consecutive 12-month period.

h. The molten sulfur storage tanks may receive molten sulfur from a ship at the same time molten sulfur is being loaded into trucks.
[Rules 62-210.200, F.A.C., Definitions - (PTE), 62-296.411, F.A.C.; Construction Permit 0570008-030-AC]

F.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.}

F.3. Visible Emissions (VE) Limitations. Visible emissions from any emission point in the molten sulfur facility shall not exceed 10 percent opacity (six minute average), except, visible emissions of sulfur particulate matter during ship unloading shall not exceed 15 percent opacity (six minute average). Note, when the scrubber controls emissions from a truck being loaded with molten sulfur and a molten sulfur storage tank being loaded from a ship simultaneously, visible emissions shall not exceed 10% opacity (six-minute average).
[Rule 62-296.411(1)(g) and (i), F.A.C.; Construction Permits 0570008-029-AC and 0570008-030-AC]

F.4. Sulfur Particulate Emissions Limitation. Sulfur particulate emissions from the scrubber controlling the group of three (3) molten sulfur storage tanks and the molten sulfur truck loading station shall not exceed 0.03 grains per dry standard cubic feet (gr/dscf).
[Rule 62-296.411(1)(c), F.A.C.; Construction Permit 0570008-030-AC]

{Permitting Note: This limitation in conjunction with the other potential sulfur particulate emissions from the emission units is more stringent than Rule 62-296.411(1)(c), F.A.C., which establishes a limit of 0.03 pounds per hour per thousand tons of storage capacity.}

F.5. Sulfur Particulate Emissions Limitation. Pursuant to Rule 62-296.411(5)(b), sulfur particulate matter emissions from each molten sulfur handling source shall not exceed 1 ton per year (See Condition F.4.).
[Construction Permits AC29-239262, 0570008-029-AC and 0570008-036-AC/PSD-FL-315]

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.6. Test Methods. 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

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

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. Compliance with the particulate matter (PM) limitation of Condition F.4. shall be determined using EPA Methods 1, 2, 4, and 5. An acetone wash shall be used. A filter box or probe heat shall not be used. The sampling port shall be a minimum of eight (8) stack diameters downstream and a minimum of two (2) stack diameters upstream from any airflow disturbances. No other methods may be used unless prior written approval is received from the Department.
[Rules 62-297.401 and 62-296.411(1)(j), F.A.C.; 40 CFR 60, Appendix A; Construction Permits 0570008-030-AC and 0570008-036-AC/PSD-FL-315]

F.7. 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.8. Compliance Tests Required.

a. Annual Testing. To determine compliance with Condition F.3, the permittee shall test for visible emissions (VE) during each federal fiscal year (October 1 – September 30), during the following scenarios: [1] while the scrubber is operating, test for visible emissions while ships are unloaded (15% opacity limit); [2] while the scrubber is operating, test for visible emissions while trucks are loaded and any ships are unloaded (10% opacity); and [3] test for visible emissions (VE) from Molten Sulfur Storage and Handling System -- Pit #7 (E.U. No. 066), Molten Sulfur Storage and Handling System -- Pit #8 (E.U. No. 067), and Molten Sulfur Storage and Handling System -- Pit #9 (E.U. No. 068) (10% opacity limit), while each pit is receiving molten sulfur from the molten sulfur storage tanks and/or truck.

   Since the opacity requirement for testing item [2] is more stringent than testing item [1], the testing requirement [1] may be waived at the permittee's option.

b. Testing Every Five (5) Years. At least 270 days prior to and no more than 365 days prior to the expiration date of this Title V Permit, the permittee shall [1] test the scrubber's outlet emissions for sulfur particulate emissions and visible emissions; [2] test for visible emissions from the stack of each of the three (3) molten sulfur storage tanks while the scrubber is not operating (10% opacity limit).

[Rule 62.297.310(7), F.A.C.; Construction Permits 0570008-030-AC and 0570008-036-AC/PSD-FL-315]

{Permitting Note: At the permittee's option: If sulfur particulate emission compliance tests are also conducted on the scrubber's inlet to determine the scrubber's actual collection efficiency of sulfur particulate, which can be used to demonstrate the actual sulfur particulate emissions from the scrubber plus the fugitive sulfur particulate emissions for the emission unit is less than 1 ton/yr., then the weight emission limitation of Condition F.4. will not be applicable for that emission unit(s) per Rule 62-296.411(5)(b), F.A.C. Thus, future sulfur particulate emission testing will also not be required. If the permittee selects this option, the permittee shall meet with the Air Compliance Section of the EPCHC for prior approval of a test protocol to ensure proper test methods and procedures (i.e., testing at maximum permitted capacities) are implemented. The permittee shall then submit to the Department a Title V Permit Revision Application, which shall include, but not be limited to, the results of the

emissions test and supporting emissions estimates to request the removal of the sulfur particulate limit. [Rule 62.296.411(5)(b), F.A.C.; Construction Permit 0570008-030-AC]}

Recordkeeping and Reporting Requirements

F.9. Recordkeeping Requirements. The permittee shall record the following information:

ONCE EVERY EIGHT HOURS OF OPERATION (per Construction Permits 0570008-029-AC and 0570008-030-AC)

a. Scrubber's pressure drop, in inches of water.

b. Scrubber's liquid flow rate, in gallons per minute (gpm).

DAILY

c. For the molten sulfur storage tanks:

(i) For each tank - Total operating hours of receiving molten sulfur from ship(s).

(ii) For each tank - The total amount of molten sulfur received from ships, in tons.

(iii) For each tank - Calculate the daily average loading rate of molten sulfur received from ships, in tons/hr.

(iv) For the period of time when 2 and/or 3 tanks are receiving molten sulfur from a ship simultaneously:

(a) Identify which tanks are receiving molten sulfur.

(b) Record the start and end times of the tanks receiving molten sulfur simultaneously.

(c) Record the amount of molten sulfur each tank received, in tons.

(d) Record the combined total amount of molten sulfur the tanks received, in tons.

(e) Calculate and record the tanks average tons/hr. molten sulfur receiving rate.

d. For **each** molten sulfur storage pit:

(i) The total operating hours of receiving molten sulfur from the molten sulfur storage tanks and/or trucks.

(ii) The total amount of molten sulfur received from the molten sulfur storage tanks and/or trucks, in tons. Note, per No. 11 of the Permittee's letter dated October 23, 2000 (see Construction Permit 0570008-030-AC), transfer rates of molten sulfur to the pits are calculated daily based on the amount of sulfuric acid produced, the Sulfuric Acid Plant conversion efficiency, and molten sulfur inventory.

e. For the truck loading station:

(i) The total **actual** hours of loading molten sulfur into trucks.
(ii) The total amount of molten sulfur loaded into each truck, in tons.

WEEKLY

f. Document when drip pans or other secondary containment of spilled molten sulfur were cleaned.

MONTHLY

g. For **each** molten sulfur storage tank:

(i) Total amount of molten sulfur received from ships, in tons.

(ii) The most recent consecutive 12 month period total of molten sulfur received from ships, in tons.

h. For **all** molten sulfur storage tanks, record the most recent combined consecutive 12 month period total of molten sulfur received from ships, in tons.

i. For **each** molten sulfur storage pit:

(i) Total amount of molten sulfur received from the molten sulfur storage tanks and/or trucks, in tons.

(ii) The most recent consecutive 12 month period combined total of molten sulfur received from the molten sulfur storage tanks and/or trucks, in tons.

j. For **all** the molten sulfur storage pits, record the most recent consecutive 12 month period combined total of molten sulfur received from the molten sulfur storage tanks and/or trucks, in tons.

k. For the truck loading station, record the most recent consecutive 12 month period total of molten sulfur loaded into trucks, in tons.

l. Document that all vent surfaces to remove captured particulates were cleaned.

The records shall be maintained at the facility for at least 5 years and made available to the Department or the Environmental Protection Commission of Hillsborough County (EPCHC) upon request. Daily records shall be completed by the end of the next business day, weekly records shall be completed by the end of the next week, and monthly records shall be completed by the end of the next month.

[Rules 62-4.070(3) and 62-213.440, F.A.C.; Construction Permit 0570008-030-AC]

F.10. Sulfur Spill Recordkeeping. The permittee shall maintain records of spills outside of containment areas and of collection and disposal of spilled sulfur. Such records shall be retained for a minimum of five (5) years and shall be available for inspection by the Department or the Environmental Protection Commission of Hillsborough County (EPCHC) upon request.
[Rules 62-296.411(1)(f) and 62-213.440(1)(b)2.b., F.A.C.; Construction Permit 0570008-030-AC]

F.11. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

F.12. Minimize Sulfur particulate Matter Emissions. The Permittee shall employ at a minimum the following practices to minimize emissions of sulfur particulate matter:

a. All molten sulfur transfer shall be through enclosed piping systems where feasible and practical. In user facilities, molten sulfur may be transferred by covered trench or a movable spout which is positioned over a receiving pit. Contact surfaces between movable unloading arms and stationary pipes shall seat effectively around the entire circumference to minimize spillage.
[Rule 62-296.411(1)(a), F.A.C.]

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

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

d. All vent surfaces shall be cleaned monthly to remove captured particles.
[Rule 62-296.411(1)(e), F.A.C.]

e. The scrubber shall be operating when trucks are being loaded with molten sulfur as well as when a molten sulfur storage tank receives molten sulfur from a ship.
[Rule 62-210.650, F.A.C.]

f. The following operational procedures shall be performed to minimize spills from any moveable loading arm or pipe upon disconnection, reconnection or operation:

(i) Ship to Molten Sulfur Storage Tanks - Mosaic Fertilizer, Inc.'s "Sulfur Unloading Procedure" revised January 3, 2000 attached to the permittee's letter dated December 28, 2000 (see Construction Permit 0570008-030-AC).

(ii)Truck to Pits - Mosaic Fertilizer, Inc.'s "Operating Procedure Sulfur Truck Unloading", which states:

Sulfur trucks can be unloaded at the sulfur pits in the acid plants. Each truck is weighed in at the front gate, gate personnel notify acid plant operator of truck arrival. The truck driver then follows the following procedures to minimize spillage during connection, operation, and disconnection of the truck unloading operation:

- back truck to pit
- ensure the pit high level alarm light is not on
- remove pit chute cover
- remove hose cap and affix unloading hose to pit chute
- open valve on truck to begin unloading sulfur
- monitor sulfur pit level via high level alarm until truck is emptied
- immediately close valve in the case of high level alarm on pit or sulfur leakage at hose connection
- close valve on truck
- remove hose and replace hose cap prior to vehicle operation
- replace pit chute cap
- in case of any spillage notify shift supervisor immediately.

(iii) Truck Loading Station – Mosaic's Truck Loading Station Operating Procedures as included in Attachment CR-EU1-J7 of the Permittee's July 20, 2002 Title V Revision Application (DEP Project No. 0570008-040-AV).

[Rule 62-296.411(1)(h), F.A.C.; Construction Permit 0570008-030-AC]

g. The Permittee shall comply with the reasonable precautions for unconfined particulate emissions contained in this Title V Permit in addition to the following precautions:

(i) Wet sweeping and/or vacuum sweeping of roads as needed (dry sweeping is prohibited).

(ii) Limiting vehicular traffic to paved areas and to less than 14 miles per hour (mph).

[Rule 62-296.320(4)(c), F.A.C.; and Construction Permit 0570008-030-AC]

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

EU No.	Brief Description
-073	Phosphoric Acid Production Facility

The Phosphoric Acid Plant 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 (the Teller Packed-Bed, the VESCOR, and the VESCOR replica with air flows ranging from 33,000 to 53,000 ACFM): Nos. 3 and 4 reactors, Nos. 1, 2, and 3 filters (filter feed box only), Nos. 1, 2, and 3 filtrate tanks (hotwells), Nos. 1-11 Evaporator FSA Seal Tanks.

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

Essential Potential to Emit (PTE) Parameters

G.1. Permitted Capacity. The maximum phosphoric acid production rate shall not exceed a daily average of 170 tons of P_2O_5 per hour.
[Rules 62-4.160(2), 62-204.800, 62-210.200, Definitions - (PTE), 62-296.403, F.A.C.; Construction Permit 0570008-004-AC/PSD-FL-231]

{Permitting Note: See Conditions M.18. and M.19. (Common Conditions) for NESHAP requirements for monitoring and recordkeeping of the equivalent P_2O_5 feed rate.}

G.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(s) for Specific Condition **G.3.** is based on the specified averaging time of the applicable test method.

G.3. Fluoride (F) Emissions Limitations. Total fluoride emissions from these plants shall not exceed the following:

a. 0.012 lbs./ton of equivalent P_2O_5 feed[(1)].
b. 2.04 lbs./hr.
c. 8.9 tons/yr.

[40 CFR.63.602(a); Construction Permit 0570008-036-AC/PSD-FL-315]

[(1)] **"Equivalent P_2O_5 Feed Rate"** - the quantity of phosphorus, expressed as phosphorous pentoxide, feed to the process.

{Permitting Note: The fluoride emission limit in Condition G.3. is more stringent than the applicable NESHAP, 40 CFR 63.602(a) limit of 0.02 lb/ton of equivalent P_2O_5 feed. The permittee shall also comply with Administrative Order 03-C-AP dated 1/5/2004 (Attachment B) and applicable requirements of the NESHAP, 40 CFR 63, Subparts A and AA}

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.}*

G.4. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
13A	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A

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 62-297.401, F.A.C.]

G.5. 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.]

G.6. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 073 (3 scrubbers) shall be tested to demonstrate compliance with the emissions standards for fluoride specified in Specific Condition No. G.3. and other applicable standards of 40 CFR 63, Subpart AA.
[Rule 62-297.310(7)(a)4, F.A.C., 40 CFR 63.606(a)(1) and 63.609(a); Construction Permit 0570008-036-AC / PSD-FL-315]

Recordkeeping and Reporting Requirements

G.7. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

NESHAP Conditions

The NESHAP conditions of E.U. No. 073 are placed in Subsection M. Common Conditions.

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

EU No.	Brief Description
-078	Animal Feed Ingredient (AFI) Plant No. 1
-079	Diatomaceous Earth (DE) Silo
-080	Limestone Silo
-081	Animal Feed Ingredient (AFI) Product Loadout System
-103	Animal Feed Ingredient (AFI) Plant No. 2

The Animal Feed Ingredient (AFI) facility consists of defluorinated acid batch tanks (3) and granulation system along with diatomaceous earth and limestone unloading systems, and the AFI loadout system. Emissions from loading and unloading activities are controlled by baghouses.

Acid Defluorination System: Emissions from the defluorination system are controlled by a new packed bed cross flow scrubber

AFI Plant No. 1: Emissions from the granulation and material handling system are controlled by a venturi scrubber.

Emissions from the Acid Defluorination System packed bed scrubber and AFI Plant No. 1 venturi scrubber are vented to a common stack.

AFI Plant No. 2: Emissions from the granulation system and material handling system are controlled by two venturi scrubbers. These two venturi scrubbers are vented to a common stack.

{Permitting notes: 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 62-296.403, F.A.C., Phosphate Processing; Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; Rule 62-296.700, F.A.C., RACT Particulate Matter; Rule 62-296.705, F.A.C., Phosphate Processing Operations; and Rule 62-296.711, F.A.C., Materials Handling, Sizing, Screening, Crushing and Grinding Operations.}

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity. The maximum production, natural gas usage and new No. 2 fuel oil usage rates are as follows:

EU Nos.	Production Rate, tons per day (tons per hour daily average)	Maximum Natural Gas Usage Rate for AFI Plants Dryers, standard cubic feet (scf) per hour (annual average) each	Maximum new No. 2 fuel oil for AFI Plants Dryers, gallons/hour (daily average) each.	Fuel Type
078	1,080 (45)	93,000	662	Natural gas, New No. 2 Fuel oil
103	1,200 (50)	93,000	662	Natural gas, New No. 2 Fuel oil

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit 0570008-036-AC/PSD-FL-315]

H.2. Fuels The AFI Plant Nos. 1 and 2 shall be fired with natural gas only, except that new No. 2 fuel oil with a maximum sulfur content of 0.5% (by weight) is allowed as a back-up fuel. No.2 fuel oil shall not be fired for more than 400 hours/yr in each dryer. The permittee shall maintain records of the fuel oil supplier's sulfur content analysis.
[Construction Permits 0570008-028-AC/PSD-FL-234A and 0570008-036-AC/PSD-FL-315]

H.3. Hours of Operations. The hours of operation for AFI Loadout System shall not exceed 3,500 hours per any consecutive 12-month period.
[Rule 62-210.200 Definitions - (PTE), F.A.C.; Construction Permit 0570008-013-AC/PSD-FL-234.]

H.4. 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.}

H.5. Particulate Matter (PM) and Fluoride (F) Emission Rates. The permittee shall not exceed the following emissions rates:

	PM/PM_{10}			**Fluorides**	
Emission Unit	**Grains per DSCF**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
AFI Plant No. 1	N/A	13	58	N/A	N/A
Defluorination System	N/A	N/A	N/A	2.11	9.25
AFI Plant No. 2	N/A	13	58	N/A	N/A
DE Silo	0.012	0.053	0.23	N/A	N/A
Limestone Silo	0.012	0.32	1.40	N/A	N/A
Loadout System	0.012	2.06	9.01	N/A	N/A
Total for AFI Plant Nos. 1 and 2	N/A	28.72	125.78	2.11	9.25

[Rules 62-296.403(2) and 62-296.705(2)(a), F.A.C.; Construction Permit 0570008-043-AC/PSD-FL-315D]

H.6. Visible Emissions (VE) limitations. Visible emissions from emission unit Nos. 078 (AFI Plant No. 1) and 103 (AFI Plant No. 2) shall not exceed 15% opacity. Visible emissions from emission units -079, -080, and -081 shall not exceed 5% opacity.
[Construction Permits 0570008-028-AC/PSD-FL-234A, and 0570008-036-AC/PSD-FL-315]

H.7. Visible Emissions (VE) Limitation in lieu of PM Stack Test. Due to the expense and complexity of conducting a stack test on minor sources of particulate matter, and because these sources, the Diatomaceous Earth (DE) Silo, the Limestone Silo, and Loadout System, are equipped with a baghouse control device, the Department, pursuant to the authority granted under Rule 62-296.711(3)(c), F.A.C., hereby establishes a visible emission limitation not to exceed an opacity of 5% in lieu of a particulate stack test.
[Rule 62-296.711(3)(c), F.A.C.; Construction Permit 0570008-013-AC/PSD-FL-234]

Monitoring of Operations

H.8. Reasonable assurance for proper operation of pollution control equipment. In order to provide reasonable assurance that the pollution-control equipment is operating properly, the permittee shall comply with the visible-emissions limitations specified in the attached table of control-device parameters for the AFI plant. In addition, in order to provide reasonable assurance that the pollution-control equipment is operating properly, the permittee shall comply with the minimum and maximum values of pressure drop and water flow-rate that have been established by compliance tests, approved by the Department, and maintained in the Department's file with the current permit. This schedule, which is identified as Table 2, may be revised upon request from the permittee and written approval from the Department.
[Rule 62-213.440(1), F.A.C.]

Pollution Control Equipment	Parameter	Minimum Limitation	Measurement Frequency
DE Silo Baghouse	Visible Emissions	No Visible Emissions	Daily
Limestone Silo Baghouse	Visible Emissions	No Visible Emissions	Daily
Loadout Baghouse	Visible Emissions	No Visible Emissions	Daily

Note: *The venturi/cyclonic scrubber shall be operated at a minimum pressure drop of 15 inches of water. Instances may occur such as low operating rates during which the total pressure drop across the venturi/cyclonic scrubber may be less than the normal rate minimum of 15 inches of water. The permittee shall install, calibrate, operate and maintain monitoring devices that continuously measure and record the total pressure drop across each scrubbing system. Accuracy of the monitoring devices shall be ± 5% over the operating range.*
[Rules 62-4.070, 62-296.800 and 62-212.410, F.A.C.; Construction Permit 0570008-028-AC/PSD-FL-234A.]

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.}*

H.9. Test Methods. 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 – Specific Ion Electrode Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A

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 62-297.401, F.A.C.]

H.10. 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.]

H.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 078 and 103 shall be tested to demonstrate compliance with the emissions standards for:

a. particulate matter;
b. visible emissions (VE);
c. fluorides (F).

[Rule 62-297.310(7)(a)4, F.A.C.; Construction Permits. 0570008-028-AC/PSD-FL-234A and No. 0570008-036-AC/PSD-FL-315]

H.12. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 079, 080 and 081 shall be tested to demonstrate compliance with the emissions standards for visible emissions (VE).
[Rule 62-297.310(7)(a)4, F.A.C.; Construction Permit 0570008-013-AC/PSD-FL-234]

Recordkeeping and Reporting Requirements

H.13. Additional Test Report Requirements. In addition to the test report requirements in the attached Appendix TR, Facility-Wide Testing Requirements, the specific conditions H.14. and H.15. shall also be included in the compliance test reports.
[Rule 62-213.440(1), F.A.C.]

H.14. Scrubber Parameters. A summary of the following scrubber operating parameters during any compliance test shall be included in any compliance test report:
a. The scrubber identification;
b. Type of scrubber liquid;
c. Volumetric liquid flow rate (gpm) and;
d. Total gas pressure drop ("w.g.).
[Rule 62-213.440(1), F.A.C.]

H.15. Certificate of Fuel Oil. If testing is conducted while firing fuel oil in the AFI dryers, compliance with the sulfur content requirement of N.3 shall be demonstrated during the test by submitting either of the following with the test report:
a. A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
b. A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.
[Rule 62-213.440(1), F.A.C.]

H.16. Scrubber Parameter Log. In order to provide reasonable assurance of compliance with Condition H.5., the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum:
a. the volumetric liquid flow rate (gallons per minute),
b. the gas 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 shall be made at least once per eight hour shift that the animal feed ingredient plants operate.

NOTE: The permittee may substitute automated monitoring and/or data logging for the manual recordkeeping required by this Condition.

[Rules 62-4.070(4), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.; Construction Permit 0570008-013-AC/PSD-FL-234.]

H.17. Daily Records. In order to document compliance with the requirements of Conditions H.1, H.2 and H.3, the permittee shall maintain daily records of the following:

a. The hours of operation for Animal Feed Ingredient (AFI) Loadout System and Animal Feed Ingredient (AFI) Plant Nos. 1 and 2.
b. The total hours of operation for AFI Loadout System in the most recent consecutive 12-month period.
c. The daily average AFI Plant Nos. 1 and 2 production rate, tons/hour.
d. The quantity of natural gas and the quantity of No. 2 fuel oil utilized in the AFI dryers.
e. The annual average natural gas usage rate (scf/hr) and the daily average No. 2 fuel oil usage rate (gallons/hr).
f. In order to document continuing compliance with the fuel oil sulfur content Condition No. H.2., records shall be maintained of the sulfur content, in % by weight, and the amount of No. 2 fuel oil delivered for use in the dryer. On the basis of the requirements of the Department of Agriculture and Consumer Services Rule 5F-2.001 (which requires that No. 2 fuel oil sold in Florida have a maximum sulfur content not to exceed 0.5%.), reasonable assurance that the sulfur content requirement is being met can also be provided through vendor supplied documentation that the fuel oil delivered for use in these dryers meets the specifications for No. 2 fuel oil. The above records shall be maintained and made available to the Department and EPCHC upon request.
g. The total hours of operation for the AFI dryers using No. 2 fuel oil.

These records shall be recorded in a permanent form suitable for inspection by the Department and the EPCHC upon request.

[Rule 62-213.440(1), F.A.C.; Construction Permit 0570008-036-AC/PSD-FL-315.]

H.18. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

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

E.U. ID No.	Brief Description
-109	Clarifier and Storage Tanks

This subsection applies to the Clarifier and Storage Tanks. The description and capacity of the tanks are shown in the table below:

SL No.	Description	Capacity (gallons)
1.	30% Clarifier	297,000
2.	43% Clarifier	297,000
3.	54% Clarifier	297,000
4.	30% Clarifier Feed Tank	400,000
5.	43% Clarifier Feed Tank	60,000
6.	54% Clarifier Feed Tank	80,000
7.	300 K Gallon 30% Storage Tank	300,000
8.	East PFS (phosphate fertilizer solution) Dock Storage Tank (54%)	754,000
9.	West PFS (phosphate fertilizer solution) Dock Storage Tank (54%)	754,000

This emission unit has low fluoride emissions, which satisfies a portion of the criteria to be insignificant found in Rule 62-213.430(6)(b)3.d., F.A.C. However, it is not considered insignificant because the emission unit does not simultaneously satisfy Rule 62-213.430(6)(b)1., F.A.C., which requires that the unit not be subject to any unit-specific applicable requirement.

The Clarifier and Storage Tanks are regulated under 62-296.403(1)(a), F.A.C., which is a unit-specific applicable requirement.

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.}

I.1. Fugitive Emissions Calculation Method. The emission unit does not have any pollution control equipment and emits fugitively. So, the emission unit will have to show compliance with the rule requirement by doing an engineering estimate of fluoride emission from the clarifiers and storage tanks and adding that to the fluoride emissions from the phosphoric acid production facility. The sum of the emissions has to be less than 0.02 lb/ton of P_2O_5 input to the system.
[Rule 62-296.403(1)(a), F.A.C.]

Recordkeeping and Reporting Requirements

I.2. Fluoride (F) Emissions Calculation. Prepare an engineering estimate for fluoride of the Clarifiers, Feed and Storage Tanks during each federal fiscal year (October 1 – September 30) using the most current U.S. EPA Tanks program. Submit the estimate along with the fluoride emissions from the phosphoric acid production facility.
[Rules 62-296.403(1)(a) and 62-4.070(3), F.A.C.]

I.3. Fluoride (F) Emissions Record. This emission unit shall maintain its recordkeeping of fluoride emissions (engineering estimate) along with the phosphoric acid manufacturing plant fluoride emission recordkeeping. These records shall be recorded in a permanent form suitable for inspection by the Department or the Hillsborough County Environmental Protection Commission (HCEPC) upon request.
[Rules 62-296.403(1)(a) and 62-4.070(3), F.A.C.]

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

E.U. ID No.	Brief Description
-104	Phosphogypsum Stack North (No. 1)
-108	Phosphogypsum Stack South (No. 2)

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

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

Federal Rule Requirements

J.1. 40 CFR 61 Requirements. The permittee shall comply with **Appendix 40 CFR 61 Subparts A and R** attached to this permit, once the stacks become inactive as defined in 40 CFR 61.201.

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

E.U. ID No.	Brief Description
-075	AP Storage Buildings 2, 4, 5 & 6
-076	AP Loadout Between Storage Buildings 2 & 4
-077	AP Loadout Adjacent to Storage Building 6

Ammoniated phosphate (AP) product from No. 5 Granulation Plant (EU No. 055) and No. 6 AP Plant (EU No. 007) is transferred to AP Storage Building Nos. 2, 4, 5 & 6. These storage buildings store, handle and loadout AP product to conveyors and associated transfer equipment, such as bulk toters, feed and loadout elevators, mini bin system, and ribbon blender to load ships, barges, railcars, trucks and containers. The capacity of the storage buildings 2, 4, 5, and, 6 are approximately 38,000, 33,000, 40,000, and, 58,000 tons respectively.

Dust is controlled by enclosing conveyors, transfer points and applying coating oil to the AP Product prior to being stored and loadout.

Essential Potential to Emit (PTE) Parameters

K.1. Permitted Capacity:

a. The maximum AP transfer rate to the Nos. 2, 4, 5 & 6 storage buildings shall not exceed 8,237 tons per day (343.2* tons per hour, daily average) and 3,006,432 tons per any consecutive 12-month period.
b. The maximum AP Railcar/Truck/Container loadout from the Nos. 2, 4. 5 & 6 storage buildings shall not exceed 1,000 tons per hour (daily average) from each loadout station and 3,006,432 tons (combined) per any consecutive 12-month period.

*{Permitting Note: * based on the Permitted production capacities of No. 5 Granulation Plant and No. 6 AP Plant}*
[Rule 62-210.200(PTE), F.A.C.; and, Construction Permit 0570008-067-AC]

K.2. Hours of Operation: These emission units may operate continuously (8,760 hours per year).
[Rule 62-210.200(PTE), F.A.C.; Construction Permit 0570008-067-AC]

K.3. Methods of Operation: Ammoniated Phosphate (AP) shall be coated with a dust suppressant.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction Permit 0570008-067-AC]

K.4. 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.}

K.5. Visible Emission (VE) Standards: The permittee shall not cause, allow or permit any visible emissions (>5% opacity) from each of the material handling points, including loading and unloading stations, storage buildings and material transfer points. If this level is exceeded, then the Department or Hillsborough County Environmental Protection Commission (HCEPC) may require that additional dust control measures be implemented.
[Hillsborough County Code 1-3.52; Construction Permits 0570008-052-AC and 0570008-067-AC]

Monitoring of Operations

K.6. Dust suppressant monitoring: The type and amount of dust suppression oil used shall be monitored during each compliance test, and a summary of this data shall be included in each emissions test report.
[Rule 62-297.310(8), F.A.C.; Construction Permit 0570008-067-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.}

K.7. Test Methods. 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 62-297.401, F.A.C.]

K.8. 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.]

K.9. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each of the storage buildings and loadout stations shall be tested to demonstrate compliance with the emissions standard for visible emissions.
[Rule 62-297.310(7), F.A.C.]

K.10. Compliance Tests for changing of dust suppressant: 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 material storage/handling/loadout system.
[Rule 62-4.070(3), F.A.C.; Construction Permit 0570008-067-AC]

Recordkeeping and Reporting Requirements

K.11. Additional Test Report Requirements. In addition to the test report requirements in the attached Appendix TR, Facility-Wide Testing Requirements, all test reports shall include a statement of the type dust suppressant (coating oil) being used on AP during test. Test reports for compliance tests required in Specific Condition No. K.10. shall also include the following:

a. The specific type of dust suppression oil 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); and,
c. Statement of the results of observation of visible emissions from transfer and loading/unloading points when dust suppression oil is being applied at the minimum rate.

[Rule 62-213.440(1), F.A.C.; Construction Permit 0570008-052-AC]

K.12. Dust Suppressant Change Notification. The permittee shall notify HCEPC within 15 business days of switching dust suppressant (coating oil).
[Rule 62-213.440(1), F.A.C.; Construction Permit 0570008-052-AC]

K.13. Recordkeeping: In order to document compliance with the specific condition K.1., the Permittee shall maintain the records of the following information:

a. Facility Name, Facility ID No. (0570008), EU ID Nos. (075, 076 and 077) & Description;
b. When operating, Daily, record hours of operation of AP transferred to AP Storage Buildings 2, 4, 5 & 6;
c. When operating, Daily, record the combined quantity of the amount of AP transferred, tons;
d. When operating, Daily, record the AP transfer rate, tons/hour (daily average);
e. When operating, Daily, record the hours of operation of AP loaded out from each loadout station;
f. When operating, Daily, record the amount of AP loaded out from each loadout station, tons;
g. When operating, Daily, record the AP loadout rate from each loadout station, tons/hour (daily average);
h. Monthly, calculate the quantity, in tons, of AP transferred to the AP Storage Building Nos. 2, 4, 5 & 6 (12-month rolling total);
i. Monthly, calculate the quantity, in tons, of AP loaded out from each loadout station (12-month rolling total);
j. Monthly, calculate the quantity, in tons, of AP loaded out from both loadout stations (12- month rolling total);
k. for each period of operation, a statement of whether dust suppressant oil was being applied to the product being processed; and,
l. 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 in gpm and gal/ton of material handled.

The daily log must be completed within 5 business days and monthly records shall be completed within 15 days of the end of the current month and shall be retained at the facility for a minimum of five (5) years and shall be made available to the Department and the Environmental Protection Commission of Hillsborough County (EPCHC) upon request.

[Rule 62-213.440(1), F.A.C.; Construction Permit 0570008-067-AC]

K.14. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

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

E.U. ID No.	Brief Description
-111	Existing Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE) ≤ 500 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)

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

This Title V facility contains emergency stationary compression ignition (CI) internal combustion engines (shown below) that have been exempted from the requirements to obtain an air construction permit because these qualify for the categorical exemptions listed in Rule 62-210.300(3)(a), F.A.C. (specifically, Rule 62-210.300(3)(a)35 and 36, F.A.C. (Emergency Generator and General Purpose internal combustion engines and other RICE). However, these engines are included in this permit as regulated emission units because, based on their date of manufacture/construction, they are subject to federal rule NSPS 40 CFR 63 Subpart ZZZZ (National Emission Standards of Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). Latest revision has not been adopted by the State.

EU 111 - 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
Caterpillar, 3406	420	Prior to June 12, 2006	Administration Building
Caterpillar, 3208	210	Prior to June 12, 2006	TGI
Caterpillar, 3406	420	Prior to June 12, 2006	Environmental MCC
Detroit, 5403-7001	140	Prior to June 12, 2006	Outfall 005
Perkins, 1795/1500	47	Prior to June 12, 2006	# 1 South Toe Drain
Perkins, 1795/1500	47	Prior to June 12, 2006	# 15 North Toe Drain

*(**Stationary RICE Engine Listing Note** – The above listings of stationary CI RICE engines at this facility is based upon the information submitted in an attachment to a 03/15/2011 RAI response responding to a Department request for additional information on stationary RICE at the facility via RAI dated 12/15/2010).*

NOTE - IMPORTANT REGULATORY CLASSIFICATIONS:

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

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

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

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

The following specific condition(s) apply to the emissions unit 111 listed above:

Applicable Federal Requirements

L.1. Federal 40 CFR 63 NESHAP Subpart ZZZZ Requirements - The engines in EU No. 111 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines), which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart ZZZZ**, as it applies to existing RICE at major sources of hazardous air pollutants (HAP). The applicable requirements for each engine category and HP rating range are shown in the Appendix 63 - Subpart ZZZZ – RICE Summary of Requirements, attached to this permit.
[Rule 62-4.070(3), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

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

L.2. Federal NESHAP 40 CFR 63 Subpart A General Provisions Requirements - The engines in EU No. 111 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart A (General Provisions for 40 CFR 63), as adopted and incorporated by reference in Rules 62-204.800(11)(d), F.A.C., which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart A General Provisions**. The applicable requirements of Subpart A are shown in Table 8 to 40 CFR 63 Subpart ZZZZ *(see Appendix NESHAP 40 CFR 63 Subpart ZZZZ)*.
[Rule 62-208.800(11)(d), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

Subsection M. Common Conditions

M.1. Hours of Operation. Hours of operations for all emission units are 8,760 hour/yr each, unless otherwise noted in the emissions unit specific conditions of this permit.

Excess Emissions

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

M.2. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction 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.]

M.3. 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.]

NESHAP Conditions

EU No.	Brief Description
-007	No. 6 AP Plant
-055	No. 5 Granulation Plant
-073	Phosphoric Acid Production Facility

NESHAP Condition for EU Nos. 007 – No. 6 AP Plant & 055 – No. 5 Granulation Plant

M.4. The Permittee shall achieve compliance with the requirements of 40 CFR 63, Subpart BB no later than June 10, 2002. The Permittee became subject to NESHAP alternate monitoring plan per Administrative Order No. 03-C-AP dated 1/5/2004 (Attachment B).
[40 CFR 63.630(a), Administrative Order No. 03-C-AP dated 1/5/2004 (Attachment B)]

M.5. This emissions unit is exempted from the requirements in NSPS, 40 CFR 60, Subpart V effective upon the date that the Permittee demonstrates compliance with 40 CFR 63 Subpart BB.
[40 CFR 63.631]

M.6. This emissions unit is subject to specific requirements in the 40 CFR 63, Subpart A – General Provisions, which are located in Subsection Q. NESHAP Common Conditions.
[40 CFR 63, Appendix A of Subpart BB]

M.7. The Permittee must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant the requirements of 40 CFR 63.625(f)(1) or 63.625(f)(2).
[40 CFR 63.624]

M.8. The Permittee shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ± 5 % over its operating range.
[40 CFR 63.625(a)]

M.9. 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)]

M.10. The Permittee shall install, calibrate, maintain, and operate the following monitoring systems:

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

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

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

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

M.11. Following the date on which the performance test required in § 63.626 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (f)(1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ±20 percent of the baseline average value determined as a requirement of §63.626(c)(4) or (d)(4). The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but in no instance shall the adjustment be reduced to less than ±10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to §§63.627(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of 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 §63.626(c)(4) or (d)(4). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the

purposes of this paragraph using the test methods required in this subpart and established in the manner required in §63.626(c)(4) or (d)(4). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges 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. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.
[40 CFR 63.625(f)]

M.12. The Permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.626(c), based on the equivalent P_2O_5 feed rate computed as indicated in 40 CFR 63.626(c)(3).
[40 CFR 63.626(c)]

M.13. 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]

<u>NESHAP Conditions for EU No. 073 - Phosphoric Acid Production Facility</u>

M.14. The Permittee shall achieve compliance with the requirements of 40 CFR 63, Subpart AA no later than June 10, 2002. The Permittee became subject to NESHAP alternate monitoring plan per Administrative Order No. 03-C-AP dated 1/5/2004 (Attachment B).
[40 CFR 63.609(a), Administrative Order No. 03-C-AP dated 1/5/2004 (Attachment B)]

M.15. This emissions unit is exempted from the requirements in NSPS, 40 CFR 60, Subpart T effective upon the date that the Permittee demonstrates compliance with 40 CFR 63, Subpart AA.
[40 CFR 63.610]

M.16. This emissions unit is subject to specific requirements in the 40 CFR 63, Subpart A - General Provisions, which are located in Subsection Q. NESHAP Common Conditions.
[40 CFR 63, Appendix A of Subpart AA]

M.17. The permittee shall maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber with in the allowable ranges established pursuant to 40 CFR 63.605(d)(1) or (2).
[40 CFR 63.604]

M.18. The permittee shall install calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of the phosphorus-bearing feed to the process. The monitoring system shall have an accuracy of ±5 % over its operating range.
[40 CFR 63.605(a)]

M.19. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate of the phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of 40 CFR 63.605(a) and using the calculation method of 40 CFR 63.606(c)(3).
[40 CFR 63.605(b)(1)]

M.20. The permittee shall install, calibrate, maintain, and operate the following monitoring systems:

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

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

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

[40CFR 63.605(c); Administrative Order No. 03-C-AP for alternative MACT monitoring plan]

M.21. Following the date on which the performance test required in § 63.606 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (d)(1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ±20 percent of the baseline average value determined as a requirement of §63.606(c)(4), (d)(4), or (e)(2). The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but, in no instance shall the adjustment be reduced to less than ±10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to §§63.607(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of 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 §63.606(c)(4), (d)(4), or (e)(2). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in §63.606(c)(4), (d)(4), or (e)(2). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges 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. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has

not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.
[40 CFR 63.605(d)]

M.22. The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.606(c), based on the equivalent P_2O_5 feed rate computed as indicated in 40 CFR 63.606(c)(3).
[40 CFR 63.606(c)]

M.23. 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 63.607]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Construction Permit:

Appendix A, Glossary.
Appendix CAM, Compliance Assurance Monitoring Plan.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NSPS 40 CFR 60 Subpart A – General Provisions.
Appendix NSPS 40 CFR 60 Subpart H – Standards of Performance for Sulfuric Acid Plants (SAPs)
Appendix NESHAP 40 CFR 61 Subpart A – General Provisions.
Appendix NESHAP 40 CFR 61 Subpart R – National Emission Standards for Radon Emissions from Phosphogypsum Stacks
Appendix NESHAP 40 CFR 63 Subpart A – General Provisions
Appendix NESHAP 40 CFR 63 Subpart A – General Provisions (Subparts AA & BB Combined)
Appendix NESHAP 40 CFR 63 Subpart AA – NESHAP for Phosphoric Acid Manufacturing Plants
Appendix NESHAP 40 CFR 63 Subpart BB – NESHAP for Phosphate Fertilizer Production Plants
Appendix NESHAP 40 CFR 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)
Appendix NESHAP 40 CFR 63 Subpart ZZZZ – RICE Summary of Requirements
Appendix NESHAP 40 CFR 63 Subpart ZZZZ – RICE Inventory and Facility Applicable Requirements
Appendix U, List of Unregulated Emissions Units and/or Activities.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Attachment A: Memorandum of Understanding Regarding Best Operational Start-up Practices for SAPs
Attachment B: Alternate MACT Monitoring Plan, Administrative Order 03-C-AP (Signed on 01/05/2004)

REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

Referenced Attachments

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table H, Permit History.
Table 1, Summary of Air Pollutant Standards and Terms.
Table 2, Compliance Requirements.
Table CAM – CAM Applicability
Statement of Basis