New Wales Facility

Facility ID No. 1050059
Polk County

Title V Air Operation Permit Revision

Air Operation Permit No. 1050059-083-AV
(1st Revision of Permit No. 1050059-075-AV)

Permitting and Compliance Authority:

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

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Title V Air Operation Permit Revision

Air Operation Permit No. 1050059-083-AV

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Permit No. 1050059-083-AV
New Wales Facility
Facility ID No. 1050059
Title V Air Operation Permit Revision

The purpose of this Title V air operation permit (1050059-083-AV) is to revise the Title V air operation permit (1050059-075-AV). The existing facility is located at 3095 Highway 640, Mulberry, Polk County; UTM Coordinates: Zone 17, 396.7 km East and 3079. 3 km North; Latitude: 27° 50'03" North and Longitude: 82° 02'57" 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.

1050059-083-AV 1st Revision Effective Date: [Day 55]
Effective Date: 11/6/2012
Renewal Application Due Date: 03/26/2017
Expiration Date: 11/6/2017

Executed in Tallahassee

_____
Jeffery F. Koerner, Program Administrator
Permitting and Compliance Section
Division of Air Resource Management

JFK/sa/sms

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SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

This facility is a phosphate fertilizer manufacturing complex. The fertilizer complex processes phosphate rock into several different fertilizer products and animal feed ingredients. This is accomplished by reacting the phosphate rock with sulfuric acid to produce phosphoric acid and then converting the phosphoric acid to fertilizer and animal feed ingredient products. This facility consists of five double absorption sulfuric acid plants; three phosphoric acid plants; a phosphoric acid clarification and storage area; three diammonium phosphate (DAP) plants; a monoammonium phosphate (MAP) plant; a granular monoammonium phosphate (GMAP) plant; an animal feed ingredients (AFI) plant; a molten sulfur storage & handling system; a limestone storage silo/rock grinding operation; and a phosphogypsum stack. This plant started operations in 1975. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

This facility has emissions units that are subject to the NESHAPs requirements from: 40 CFR 63, Subpart A, General Provisions; 40 CFR 63, Subpart AA, National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants; and, 40 CFR 63, Subpart BB, National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants. These federal regulations are adopted and incorporated by reference in Rule 62-204.800, F.A.C.

This facility has emissions units that are subject to the Compliance Assurance Monitoring (CAM) requirements, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

The facility has emergency and non-emergency compression ignition (CI) reciprocating internal combustion engines (RICE) that are subject to 40 CFR 63, Subpart A – NESHAP General Provisions and Subpart ZZZZ-NESHAP for stationary RICE.

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	
002	No. 1 Sulfuric Acid Plant
003	No. 2 Sulfuric Acid Plant
004	No. 3 Sulfuric Acid Plant
042	No. 4 Sulfuric Acid Plant
044	No. 5 Sulfuric Acid Plant
008	Phosphoric Acid Plant (East)
017	Phosphoric Acid Plant (West)
039	Phosphoric Acid Plant No. 3
053	Phosphoric Acid Clarification and Storage Area
048	30% Clarification Area (Area 10)
009	DAP Plant No. 1
045	DAP Plant No. 2 - East Train
046	DAP Plant No. 2 - West Train
047	DAP Plant No. 2 - West Product Cooler
056	DAP Plant No. 2 - East Product Cooler

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011	MAP Prill Plant
055	MAP Plant Cooler
015	Animal Feed Ingredients (AFI) Shipping/Truck Loadout
023	AFI Storage Silos (3)--North Side
024	AFI Storage/Shipping/Rail Car Loading
025	AFI Limestone Storage Silos (2)
026	AFI Silica Storage Bin
027	AFI Granulation Plant
028	AFI Storage Silos (3)—South Side
052	AFI Limestone Feed Bin
030	Soda Ash Unloading System
060	7,500 Ton Rail Storage Molten Sulfur Storage Tank
062	15,000 Ton Molten Sulfur Storage Tank
063	1,500 Ton Truck Unloading Pit, Sulfur Pit (North)
067	1,500 Ton Truck Unloading Pit, Sulfur Pit Front Vent
068	1,500 Ton Truck Unloading Pit, Sulfur Pit Rear Vent
064	350 Ton Truck Unloading Pit, Sulfur Pit (South)
069	350 Ton Truck Unloading Pit, Sulfur Pit Vent
065	800 Ton Railcar Unloading Pit
066	200 Ton Molten Sulfur Transfer Pit
080	1 Molten Sulfur Loading Station
070	Limestone Storage Silo/Rock Grinding
071	Phosphogypsum Stack
078	GMAP Plant
087	Existing Emergency CI RICE $\leq$ 500 HP
088	Existing non-emergency CI RICE 100$\leq$ HP $\leq$ 500
Unregulated Emissions Units and Activities	
072	Facility-Wide Fugitive Emissions - SO_2, SO_3, SAM and NOx emissions from the 1, 2, 3, 4 and 5 Sulfuric Acid Plants (SAPs) - Fluoride emissions from the Phosphoric Acid Plants (PAPs) East and West and No. 3 PAP - Fluoride, NH_3, PM emissions from Diammonium Phosphate (DAP), Monoammonium Phosphate (MAP) and Granular Monoammonium Phosphate GMAP Plants. - Hydrogen Fluoride (HF) emissions from the Phosphogypsum Stack and Cooling Pond *Note: For this emission unit, Annual Operation Report (AOR) emissions estimates are required only for Hydrogen Fluoride emissions from the Phosphogypsum Stack and Cooling Pond.*
012	GMAP Plant Storage Building

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Subsection C. Applicable Regulations.

Based on the Title V Air Operation Renewal application submitted on July 3, 2012 and received on 7/5/2012, 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, 40 CFR 60, Subpart H – Standards of Performance for Sulfuric Acid Plants, 40 CFR 60, Subpart T – Standards of Performance of Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants and 40 CFR 60, Subpart V – Standards of Performance of Phosphate Fertilizer Industry: Diammonium Phosphate 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 Nos.
40 CFR 60, Subpart A	002, 003, 004, 042, 044, 045, 046, 047 and 056
40 CFR 60, Subpart H	002, 003, 004, 042, and 044
40 CFR 60, Subpart T	008, 017, and 039
40 CFR 60, Subpart V	009, 045, 046, 047 and 056
40 CFR 61, Subpart R	071
40 CFR 63, Subpart AA	008, 017, and 039
40 CFR 63, Subpart BB	009, 011, 045, 046, 047, 055 and 056
40 CFR 63, Subpart ZZZZ	087 and 088
Rule 62-296.402, F.A.C.	002, 003, 004, 042, and 044
Rules 62-296.403, F.A.C.	008, 009, 011 017, 039, 045, 046, 047, 053, 056 and 078
Rule 62-296.700	015, 023, 024, 025, 026, 027, 028, 030 and 052
Rule 62-296.705, F.A.C.	009, 011, 045, 046, 047, 055 and 056
Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.	All

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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.]

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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.]

FW10. Escape BART Source Obligation: The E.U. ID No. 036 (Multifos A and B Kilns including associated coolers) were shutdown as part of the Permit No. 1050059-061-AC permitting action. If these emission units resume operations a BART analysis shall be performed as though they had not been shutdown. Other preconstruction review requirements may apply.
[Rule 62-296.340(5)(c) (escape BART), F.A.C.; Applicant's Request received October 3, 2008; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.2.]

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Section III. Emissions Unit(s) and Conditions.

Subsection CC. Common Conditions.

The following conditions apply to all regulated emissions unit(s):

Emission Unit Subsection Descriptions

CC.~~7.~~1. This permit includes a "Subsection" for each emissions unit which includes a description of that emissions unit. That description is descriptive only and is not enforceable.

Essential Potential to Emit (PTE) Parameters

CC.~~1.~~2. Hours of Operation. Unless otherwise noted within this permit, all emissions units are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200 (PTE), F.A.C.]

CC.~~5.~~3. Better Grade Fuel Oil.
A better grade fuel oil is defined as a fuel oil with a higher ranking in the following list:

Better Grade (Top of list)
new, No. 2 fuel oil, or No. 2 on-specification fuel oil
new, No. 3 fuel oil, or No. 3 on-specification fuel oil
new, No. 4 fuel oil, or No. 4 on-specification fuel oil
new, No. 5 fuel oil, or No. 5 on-specification fuel oil
new, No. 6 fuel oil, or No. 6 on-specification fuel oil
{Permitting Note: When No. 6 fuel oil is specified in this permit, a better grade may be substituted.}

~~**Monitoring of Operations**~~

Emission Limitations and Standards - Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS NESHAP or MACT provision.}

CC.4. Excess emissions resulting from 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.]

CC.5. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Test Methods and Procedures

CC.~~2.~~6. When PM Tests Not Required. Annual and permit Revision compliance testing for particulate matter emissions is not required for these emissions units while burning:

a. only gaseous fuel(s); or
b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3., 4. & 5., F.A.C.]

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CC.~~3.~~7. Visible Emissions (VE). The test method for visible emissions shall be either EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C., or DEP Method 9, whichever is applicable.
[Rules 62-204.800 and 62-297, F.A.C.]

CC.~~4.~~8. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
    a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
    b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.
[Rule 62-297.401, F.A.C.]

Air Pollution Control Device/Systems Monitoring

*{Applicability Note: **Common Condition No. 6.** applies to air pollution control devices/systems not subject to MACT or CAM as referenced in the emissions units sections of this permit.}*

*{Note: For ease of reference, **Common Condition No.6.** in this Subsection corresponds to **Facility-wide Condition 14.** of the initial Title V permit.}*

CC.~~6.~~9. Air Pollution Control Device/System Operation & Monitoring. In order to provide reasonable assurance that the air pollution control equipment or systems are operating properly, the permittee shall comply with the following:

a. The liquid flow rate (gallons per minute) to the pollution control system (e.g., scrubber) does not fall below:
    1. 90% of the rate reported during the most recent satisfactory compliance test, following the final issuance of this permit, or
    2. lower than a minimum liquid flow rate limit specified in a condition of this permit.
b. The pressure drop (inches of water) across the pollution control system (e.g., scrubber) shall not fall below:
    1. 90% of the rate reported during the most recent satisfactory compliance test, following the final issuance of this permit,
    2. lower than a minimum pressure drop limit specified in a condition of this permit.
    3. In the case of pressure drops of less than 5 inches of water, a change of 0.5 inches of H_2O below the drop reported during the most recent satisfactory compliance test, following the final issuance of this permit.

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c. The average liquid flow rate or pressure drop over a 24 hour period may be used in determining the "liquid flow rate" or "pressure drop" in **a.** and **b.** above. It shall not be considered a violation if the liquid flow rate or pressure drop falls below the 90% value or specified minimum limit if another compliance test, at the same pollution control system parameters is conducted within 30 days and shows compliance. Such tests shall be conducted in accordance with the testing conditions specified for a standard compliance test as specified in the conditions within.

d. If an additional compliance test is to be conducted, as described in **c.** above, then the permittee shall submit a Final test protocol, for approval by the Department, with the test notification.

*{Permitting Note: As an alternative to the minimum requirements of **a.** and **b.** above, the permittee may elect to propose a test protocol, with the Department's approval, to demonstrate fixed minimum or maximum rates and operating tolerances.}*

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

Recordkeeping and Reporting Requirements - Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS NESHAP or MACT provision.}

CC.10. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Compliance Authority, in accordance with Rule 62-4.130, F.A.C. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Compliance Authority.

[Rule 62-210.700(6), F.A.C.]

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

EU No.	Brief Description
002	No. 1 Sulfuric Acid Plant
003	No. 2 Sulfuric Acid Plant
004	No. 3 Sulfuric Acid Plant
042	No. 4 Sulfuric Acid Plant
044	No. 5 Sulfuric Acid Plant

Sulfuric Acid Plants (SAPs) No. 1, No. 2, No. 4, and No. 5 consist of a double absorption system. Sulfuric Acid Plant (SAP) No. 3 also consists of a double absorption system. However, instead of utilizing a conventional inter-pass absorption tower, this plant utilizes a heat recovery system absorption tower. Sulfuric acid mist (SAM) emissions are controlled by Brownian diffusion type candles in the mist eliminator section in the final absorbing tower. The sulfur burner at SAP No. 3 was recently replaced by a like-kind new sulfur furnace.

No. 1, No. 2 and No. 3 plants produce 3,400 tons per day each and No. 4 and No. 5 plants produce 2,900 tons per day each of sulfuric acid (100% H_2SO_4 basis). SAP Nos. 1 & 2 have Brownian diffusion-type candles in the final absorption towers for SAM control, similar to the one employed on SAP No. 3. Acid mist emissions are controlled by a demister.

The current catalyst loadings in SAP Nos. 1, 2 and 3 are as follows:
No. 1 SAP: 533,704 liters;
No. 2 SAP: 543,600 liters; and,
No. 3 SAP: 554,804 liters.

{Permitting Notes: The SAPs are currently regulated under NSPS 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants, adopted and incorporated by reference in Rule 62-204.800(7)(b)10., F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-296.402, F.A.C., Sulfuric Acid Plants; and, Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards.}

Air Pollution Control Technologies and Measures

A.0.1. SAP SO_2 Controls: The BART exemption determination did not require new, modified or additional air pollution control systems for sulfur dioxide (SO_2). To control emissions of SO_2 from each SAP, the permittee shall continue the use of the existing double absorption system technology with vanadium and/or cesium catalyst in the converters and the use of good combustion practices and best operational practices to minimize excess emissions during startup and shutdown.
[Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.6.]

A.0.2. SAP Acid Mist Controls: The BART exemption determination did require new, modified or additional air pollution control systems for sulfuric acid mist (SAM). By controlling SAM emissions, particulate matter/particulate matter less than 10 microns (PM/PM_{10}) and visible emissions are minimized. To control emissions of SAM, the permittee shall operate the installed Brownian diffusion-type candles on SAPs 1 and 2, similar to the one employed on SAP No. 3. Other SAM control technologies may be considered by the Office of Permitting and Compliance in Tallahassee upon written request. The permittee shall submit a written request for other SAM control technologies to the Office of Permitting and Compliance in Tallahassee with a copy to the Compliance Authority for review and approval prior to use.

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[Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.7.]

A.0.3. Circumvention: The permittee shall not circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.; and, and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.7.]

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable production rates are as follows:

E.U. ID No.	Plant Name	Maximum Production Rate
002	No. 1 SAP	3,400 tpd of 100% H_2SO_4
003	No. 2 SAP	3,400 tpd of 100% H_2SO_4
004	No. 3 SAP	3,400 tpd of 100% H_2SO_4
042	No. 4 SAP	2,900 tpd of 100% H_2SO_4
044	No. 5 SAP	2,900 tpd of 100% H_2SO_4

[Rules 62-4.160(2), 62-204.800, 62-210.200, Definitions - (PTE), F.A.C.; Construction Permits AC53-192221 ~~and~~ 1050059-036-AC (PSD-FL- 325); and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.3.]

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

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.}

{Permitting Note: Unless otherwise specified, the averaging time(s) for Specific Conditions(s) A.3-A.6 are based on the specific averaging time of the applicable test method.}

A.3. Sulfur Dioxide Emissions Limitations

A.3.1. Sulfur dioxide (SO_2) emissions shall not exceed any of the following for SAP Nos. 4 & 5:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
4	4	483.3	2117
5	4	483.3	2117

[Rules 62-204.800(8)(b)11. and 62-296.402, F.A.C., 40 CFR 60.82(a), and Construction Permit AC53-192221]

A.3.2. Sulfur dioxide (SO_2) emissions shall not exceed the following for SAP Nos. 1 & 2:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
1	3.5, 24-hr rolling average[1] 4.0, 3-hr rolling average	496[1] 567	2,172
2	3.5, 24-hr rolling average[1] 4.0, 3-hr rolling average	496[1] 567	2,172

[Construction Permit 1050059-036-AC (PSD-FL-325); and, [1] Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.9.]

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A.3.3. Sulfur Dioxide (SO_2) emissions shall not exceed the following for SAP No. 3:

SAP No.	lb/Ton of 100% H_2SO_4	lb/hr
3	3.5, 24-hour rolling average[1] 4.0, 3-hr rolling average	496, 24-hour (daily) block CEMS average[1]

Notes: (i) The above limits are more stringent than the limits in 40 CFR 60.82(a)
(ii) The equivalent emissions are 2,172 TPY.
(iii) The 496 lb/hr emission limit is based on a 24-hour (daily) block CEMS average.

[Construction Permits 1050059-036-AC (PSD-FL-325) and [1] Permit No. 1050059-061-AC (BART Exemption), Specific Condition 3.A.9.]

A.4. Sulfuric Acid Mist (SAM) Emissions Limitations

A.4.1. Sulfuric Acid Mist (SAM) emissions shall not exceed any of the following for SAP Nos. 4 & 5:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
4	0.15	18.1	79.4
5	0.15	18.1	79.4

[Rules 62-204.800(8)(b)11. and 62-296.402, F.A.C., 40 CFR 60.83(a)(1), and AC53-192221]

A.4.2. Sulfur Acid Mist (SAM) emissions shall not exceed the following for SAP Nos. 1 & 2:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
1	~~0.10~~0.05[1]	~~14~~7.1[1]	~~62~~31.1[1]
2	~~0.10~~0.05[1]	~~14~~7.1[1]	~~62~~31.1[1]

[Construction Permit 1050059-036-AC (PSD-FL-325) and, [1] Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.9.]

A.4.3. Sulfur Acid Mist (SAM) emissions shall not exceed the following for SAP No. 3:

SAP No.	lb/Ton of 100% H_2SO_4	lb/hr
3	0.05[1]	7.1[1]

{Notes: (i) The above limits are more stringent than the limits in 40 CFR 60.83(a)(1). (ii) The equivalent emissions are 31.1 TPY.[1]}

[Construction Permits 1050059-036-AC (PSD-FL-325) and [1] Permit No. 1050059-061-AC (BART Exemption), Specific Condition 3.A.9.]

A.5. Nitrogen Oxide Emissions Limitations

A.5.1. Nitrogen oxides emissions shall not exceed any of the following for SAP Nos. 4 & 5:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
4	0.12	14.5	63.5
5	0.12	14.5	63.5

{Note: The above nitrogen oxides limits are based upon a general emission factor of 18 ppm and are subject to revision if sufficient test data indicates that the emission factor is improper.}

[Construction Permit AC53-192221]

A.5.2. Nitrogen oxides emissions shall not exceed the following for SAP Nos. 1 & 2:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
1	0.12	17[1]	75
2	0.12	17[1]	75

[Construction Permit 1050059-036-AC (PSD-FL-325) and, [1] Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.9.]

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A.5.3. Nitrogen oxide emissions shall not exceed the following for SAP No. 3:

SAP No.	lb/hr	TPY
3	17[1]	75

{Note: The equivalent emission rate is 0.12 lb/Ton of 100% H_2SO_4 [1]}
[Construction Permits 1050059-036-AC (PSD-FL-325) and [1] Permit No. 1050059-061-AC (BART Exemption), Specific Condition 3.A.9.]

A.6. Visible Emission Limitation: Visible emissions shall not be equal to or greater than 10% opacity.
[Rules 62-204.800(8)(b)11. and 62-296.402, F.A.C., and 40 CFR 60.83(a)(2); and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.10.]

Excess Emissions

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

A.7. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.; Construction Permit 1050059-061-AC]

A.7.1 Excess Emissions Allowed: Sulfuric acid plants are authorized to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices to minimize emissions, in accordance with the agreement titled "Best Operational Start-Up Practices For Sulfuric Acid Plants" is followed. Unless otherwise specified by permit, excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.; Construction Permits 1050059-036-AC and 1050059-061-AC]

A.7.2. Excess Emissions Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.; Construction Permit 1050059-061-AC]

A.7.3. Best Operational Practices to Minimize Excess Emissions:

a. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in the most recent Title V permit.
b. Best operational practices to minimize excess SO_2 and sulfur trioxide (SO_3) emissions during startup are governed by this condition. The permittee shall follow the best operational practices to minimize excess emissions during startup contained within the attached Attachment A - Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants initially executed on October 25, 1989.

[Rules 62-296.340(5)(c) (escape BART) and 62-210.700(1), F.A.C.; Construction Permit 1050059-061-AC]

A.8. Best Operational Practices to Minimize Leaks of SO_2 and SO_3, or Other Fugitive Process 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 62-296.320(4)(c), F.A.C., Construction Permit 1050059-061-AC]

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Monitoring of Operations

A.9. H_2SO_4 Production Rate Monitoring: The permittee shall operate and maintain equipment and/or instruments necessary to determine the production rate of H_2SO_4 as required in **Condition.A.1.** This equipment, along with any associated instrumentation, as well as the equipment and/or instruments necessary to measure other required process variables shall be calibrated and adjusted to indicate the true value of the parameter being measured. The frequency of calibration and adjustment shall be in accordance with the equipment and/or instrument manufacturers' recommendations.
[Rule 62-297.310(5)(b), F.A.C.]

A.10. Continuous Monitoring Requirements

A.10.1. SO_2 CEMS: A continuous emission monitoring system for the measurement of sulfur dioxide shall be calibrated, maintained and operated as specified in 40 CFR 60.84. The span value of the continuous monitor shall be set at 1000 ppm of SO_2.
[40 CFR 60.84; Rules 62-204.800(8)(b)11. and 62-296.402(4), F.A.C.]

A.10.2. SO_2 Emission Compliance Demonstration – For each of the SAP plants 1, 2, and 3, a continuous emissions monitoring system (CEMS) will be used to determine compliance with the 24-hour average emission limit for 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, 60.7, 60.13, 60.84]

A.10.3. 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). The lb/ton conversion factor determination and calculation procedure may be incorporated into electronic reporting programming software. The lb/ton conversion factor determination and calculation procedure shall be accessible to the Department and made available upon request.
[Rules 62-204.800(7)(b)10 and 62-297.500, F.A.C., and 40 CFR 60.84]

A.10.4. SO_2 Continuous Emissions Monitoring System (CEMS): The BART exemption determination required an SO_2 CEMS to be used to demonstrate continuous compliance with the SO_2 emission standards and limitations specified in this section for SAP Nos. 1, 2 & 3.

a. In accordance with the New Source Performance Standards (NSPS) (40 CFR 60, Subpart H) requirements for sulfuric acid plants, the permittee shall continue to properly calibrate, maintain, and operate a CEMS to measure and record emissions of SO_2.

b. A CEMS shall be properly calibrated, maintained, and operated to comply with: 40 CFR 60 Subpart A, General Provisions; 40 CFR 60 Appendix B, Performance Specification 2; and, 40 CFR 60, Appendix F, Quality Assurance Procedures for Gas CEMS Used for Compliance Determination.

c. The emissions data collected with the certified CEMS shall be used to demonstrate continuous compliance with the standards and limitations specified in this section.

[Rules 62-296.340(5)(c) (escape BART), 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; ; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.11.]

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

Proposed

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
6, 6C	Determination of Sulfur Dioxide Emissions from Stationary Source
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.
[Rule 62-297.401, F.A.C.]

A.12. 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.13.1. 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 (SO_2)[1]; and,
c. sulfuric acid mist (SAM)

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

[1]{Note: Under the escape BART permit, Permit No. 1050059-061-AC, SO_2 CEMS are required for SAP Nos. 1, 2 & 3 to demonstrate compliance on a continuous basis, therefore, no annual compliance test for SO_2 is necessary on the SAP Nos. 1, 2 & 3.}

A.13.2. NOx Compliance Testing. Nitrogen Oxide (NOx) emissions are to be tested every five years prior to renewal. Within the 12-month period prior to but not later than 270 days prior to the expiration date of the facility's Title V air operation permit, each SAP shall be tested to demonstrate compliance with the emissions standards for NOx.
[Rule 62-297.310(7), F.A.C.]

A.13.3. Performance Test Notifications. The owner or operator shall notify the Department, at least 30 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[40 CFR 60.8(d)]

{Permitting Note: These emission units are regulated under NSPS 40 CFR 60.8 which supersedes condition TR7.}

Recordkeeping and Reporting Requirements

A.14. Daily Records: In order to document ongoing compliance with the emission limitations of Specific Condition A.3.1., A.3.2., and A.3.3., the permittee shall maintain records on each of the SAPs. The records shall include, but not limited to, the following:

a. Facility Name and Unit name;
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). Documentation as to how daily production rates were calculated shall be included as part of the records;

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e. 3-hour and 24-hour average of SO_2 emissions (lb/ton as 100% H_2SO_4) using the 3-hour and 24-hour rolling average or 3-hour and 24-hour block average as appropriate;
f. daily SO_2 average emissions (pounds/hour);

Daily records shall be completed within 5 business days of the day of operation.
[Rules 62-204.800(8)(b)11 and 62-213.440(1), F.A.C.]

A.15. Quarterly Reporting Requirements: The owners or operators of facilities for which monitoring is required shall submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.402, F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of 5 (five) years. {The permittee is required to use SO_2 continuous emissions monitoring systems for continuous compliance demonstrations.}

The permittee shall submit a written report of excess sulfur dioxide emissions for every calendar quarter 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. Copies of the quarterly sulfur dioxide excess emission report shall be submitted to the Southwest District Office in Tampa.
[40 CFR 60.84(e); Rules 62-296.402(5) and 62-213.440(1)(b)2., F.A.C., Construction Permit 1050059-061-AC]

A.16. SO_2 Monitor Records: 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).
[Rule 62-204.800(8)(b)11., F.A.C. and 40 CFR 60.7(d)]

A.17. Startup, Shutdown and Malfunction Records: The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the sulfuric acid plants; or any malfunction of the air pollution control equipment.
[Rule 62-204.800(8)(b)11., F.A.C. and 40 CFR 60.7(b)]

Source Commitments

A.18. 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 Appendix MOU.*
[Rule 62-4.070(3), F.A.C.]

A.19. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

A.20. 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.]

A.21. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

A.22. Pursuant to Rule 62-296.340(5)(c) (escape BART), F.A.C., the specific terms and conditions of Permit No. 1050059-061-AC, BART Exemption Project, were required in order to escape a Best Available Retrofit

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Technology Determination. The specific terms and conditions apply to each affected emissions unit and are in addition to any other applicable standards.
[Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rules 62-4.070(1)&(3) (Reasonable Assurance) and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 2.8.]

A.23. A relaxation of the specific terms and conditions of Permit No. 1050059-061-AC, BART Exemption Project, may subject the facility to a BART and/or a Best Available Control Technology (BACT) determination. Any request to change the specific terms and conditions of that permit must be submitted to the Office of Permitting and Compliance in the Division of Air Resource Management of the Florida Department of Environmental Protection.
[Rule 62-296.340(5)(c) (escape BART), F.A.C.; and, Rules 62-4.070(1)&(3) (Reasonable Assurance) and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 2.9.]

A.24. Source Obligation - Affected Emission Units under Permit No. 1050059-061-AC, BART Exemption Project:

(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12)(b), F.A.C.; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 2.12.]

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

EU No.	Brief Description
008	Phosphoric Acid Plant (East)
017	Phosphoric Acid Plant (West)

The plants are sister units. These plants commenced operations in March 1975. Phosphoric acid is produced by reacting the phosphate rock with sulfuric acid. Emissions from the attack tank, filter and seal tanks are controlled by a cross flow scrubber which uses process water.

These two phosphoric acid trains and the Phosphoric Acid Plant No. 3 (EU No. 039) share a common acid clarification system.

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum allowable production and heat input rates are as follows:
The P_2O_5 input rate of the Phosphoric Acid Plant East and Phosphoric Acid Plant (West) shall not exceed 2,200 tons P_2O_5 per day each. This P_2O_5 input rate correlates to an approximate equivalent production rate of approximately 2,134 tons P_2O_5 per day each.
[Rule 62-4.160(2), F.A.C., Rule 62-210.200, F.A.C., Definitions - (PTE)]

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

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.}

*{Permitting Note: Unless otherwise specified, the averaging times for Specific Condition **B.3.** is based on the specified averaging time of the applicable test method.}*

B.3. Fluoride (F) Emissions Limit. Fluoride (F) emissions from these emission units shall not exceed the following rates listed below:
a. 0.02 lb/ton of equivalent P_2O_5 feed; and,
b. 36.6 lb/day for each emission unit.
[Rule 62-296.403(1)(a), F.A.C., and requested by the permittee, October 27, 1995]

B.4. Fugitive Emissions**: Not federally enforceable.** All reasonable precautions shall be taken to minimize and control the generation of fugitive fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

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

B.5. 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

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Method	Description of Method and Comments
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode 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.6. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.
[Rule 62-297.310, F.A.C.]

B.7. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU Nos. 008 and 017 shall be tested to demonstrate compliance with the emissions standards for fluoride (F).
[40 CFR 63.606(a)(1); Rule 62-297.310(7), F.A.C.]

B.8. Performance Test Notification. The owner or operator shall notify the Department, at least 60 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a)]
{Permitting Note: These emissions units are regulated under 40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a) which supersedes condition TR7.}

Recordkeeping and Reporting Requirements

B.9. Daily Records: The permittee shall maintain a daily record of hours of operation and the equivalent P_2O_5 feed. Documentation as to how daily production rates were calculated shall be included as part of the records. This daily log shall be maintained at the facility and shall be made available to the Department upon request.
[Rules 62-204.800(8)(b)26 and 62-4.070(3), F.A.C.; 40 CFR 63.605(b)(1)]

Other Requirements

B.10. 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 63, Subpart A – General Provisions and 40 CFR 63 Subpart AA – National Emissions Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants. The NESHAP conditions of E.U. Nos. 008 and 017 are placed in Subsections MACT A and MACT AA. .
[Rules 62-204.800 and 62-213.440, F.A.C.]

NSPS Requirement: these emissions units are also subject to the applicable requirements contained in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60 Subpart T – Standards of Performance of Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants. However, these emissions units are exempt from the requirements of 40 CFR 60 Subpart T if they are in compliance with 40 CFR 63 Subpart AA - National Emissions Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants.
[Rules 62-204.800 and 62-213.440, F.A.C.; 40 CFR 63.610]

B.11. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

draft proposed

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

EU No.	Brief Description
039	Phosphoric Acid Plant No. 3

Phosphoric acid is produced by reacting the phosphate rock with sulfuric acid. Phosphoric acid train No. 3 is designed to produce 2,500 tons per day of phosphoric acid. Fluoride emissions from phosphoric acid train No. 3 are controlled by a cross-flow packed scrubber (using cooling pond water) followed by a cyclonic demister.

All three phosphoric acid trains (EU Nos. 008, 017 and 039) share a common acid clarification system.

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The production rate of the Phosphoric Acid Plant No. 3 shall not exceed 2,500 tons P_2O_5 per day. This product rate correlates to an equivalent P_2O_5 feed rate of approximately 2,577 tons per day.
[Rules 62-4.160(2) and 62-210.200, F.A.C., Definitions - (PTE); AC53-228026/PSD-FL-201]

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

Emission Limitations and Standards

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

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

C.3. Fluoride (F) Emissions Limit. Fluoride (F) emissions from this emission unit shall not exceed the following rates listed below:

a. 0.02 lb/ton of equivalent P_2O_5 feed; and,
b. 43 lb/day.

[40 CFR 63.602(a); Rule 62-204.800(8)(b)26., F.A.C.; 40 CFR 60.202, AC53-228026/PSD-FL-201 (BACT), and as requested by the permittee, October 27, 1995 based on EPA letter, September 15, 1995 on revised component applicability for an affected facility per NSPS Subpart T, 40 CFR 60.200(a)]

C.4. Not federally enforceable. All reasonable precautions shall be taken to minimize and control the generation of fugitive fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

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

C.5. 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

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

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

C.7. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU No. 039 shall be tested to demonstrate compliance with the emissions standard for fluoride (F).
[Rule 62-297.310(7), F.A.C.]

C.8. Performance Test Notifications. The owner or operator shall notify the Department, at least 60 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a)]

{Permitting Note: These emission units are regulated under 40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a) which supersedes condition TR7}

C.9. Daily Records. The permittee shall maintain a daily record of hours of operation and the equivalent P_2O_5 feed. Documentation as to how the daily production rates were calculated shall be included as part of the records. This daily log shall be maintained at the facility and shall be made available upon request.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

C.~~9.~~10. Federal Rule Requirements.

NESHAP Requirements: In addition to the specific conditions listed above, the emissions unit is also subject to the applicable requirements contained in 40 CFR 63, Subpart A – General Provisions and 40 CFR 63 Subpart AA – National Emissions Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants. The NESHAP conditions of E.U. No. 039 are placed in Subsections MACT A and MACT AA. .
[Rules 62-204.800 and 62-213.440, F.A.C.]

NSPS Requirement: this emissions unit is also subject to the applicable requirements contained in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60 Subpart T – Standards of Performance of Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants. However, these emissions units are exempt from the requirements of 40 CFR 60 Subpart T if it is in compliance with 40 CFR 63 Subpart AA - National Emissions Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants.
[Rules 62-204.800 and 62-213.440, F.A.C.; 40 CFR 63.610]

C.~~10.~~11. The emissions unit is also subject to the conditions contained in **Subsection CC. Common Conditions.**

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

EU No.	Brief Description
053	Phosphoric Acid Clarification and Storage Area
048	30% Clarification Area (Area 10)

The phosphoric acid clarification and storage area (EU No. 053) consists of the following:

3 - 30% acid tanks
3 - 40% acid clarifiers with aging tanks
1 - 40% acid storage tank
3 - 54% acid tanks
1 - East 54% ROP acid tanks
1 - West 54% ROP acid tanks
2 - 40% acid filters
1 - Centrifuge product tank

Emissions from the East and West 54% ROP tanks pass through a common venturi pre-scrubber and then combine with emissions from the remaining areas and vent through a vertical packed bed scrubber which utilizes contaminated cooling pond water. The primary purpose of the scrubbers is to control fluoride emissions.
{Permitting Note(s): This emission unit is regulated under Rule 62-296.403, F.A.C., Phosphate Processing.}

The phosphoric acid clarification system (EU No. 048) provides clarification for a combination of approximately 30% phosphoric acid and approximately 40% sludge acid using a series of tanks for cooling and settling and two belt filters used for the removal of settled solids. Under a separate emissions unit, an ancillary feed system is available which can supply clay material which can be used to provide further phosphoric acid clean-up, if necessary. The original carbon columns used for filtration have been permanently by-passed and are not in service. The final product can be routed to the granulation plant directly or routed to the uranium recovery process area prior to the granulation plant.

The phosphoric acid input process rate is 265 tons per hour of 100% P_2O_5. Emissions are controlled by a packed bed scrubber.

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity

a. The phosphoric acid feed rate from the phosphoric acid plants EU ID No. -053 shall not exceed 6,896 tons per day of P_2O_5.

b The phosphoric acid input process rate for EU ID No. -048 shall not exceed 265 tons per hour of 100% P_2O_5.

[Rule 62-4.160(2), F.A.C.; and, Rule 62-210.200, F.A.C., Definitions - (PTE)]

D.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. For the purpose of testing, the three phosphoric acid trains shall operate for a clarification test with no rate requirement for the trains.
[Rules 62-297.310(2), and 62-4.070(3), 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.}

draft proposed

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

D.3. Fluoride Emission Limitations:

a. Fluoride emissions from the EU ID No. -053 scrubber stack shall not exceed 25 pounds per day (1.04 pounds per hour).

[Construction Permit 1050059-076-AC]
{Permitting Note: This Fluoride limitation is more stringent than 2.32 lbs/hr limit allowed by Construction Permit AC53-040085, which has been modified by Construction Permit 1050059-076-AC. The 25 lbs/day limit was originally set by agreement between the permittee and FDEP, 1/23/96.}

b Fluoride emissions from the EU ID No. -048 packed bed scrubber shall not exceed 0.28 pounds per hour.

[Best Available Control Technology (BACT) determination dated September 19, 1980 and Construction Permit No. 1050059-052-AC]

D.4. Fugitive Emissions: **Not federally enforceable.** All reasonable precautions shall be taken to minimize and control the generation of fugitive fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

Monitoring of Operations

D.5. Scrubber Operating Parameter Monitoring: In order to provide reasonable assurance that the control equipment is operating properly, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum:

a. the water flow rate (gallons per minute) once every 12 hours,
b. the scrubber pressure drop (inches of water) once every 12 hours,
c. the date and time of the measurements,
d. the name of the person responsible for performing the measurements, and
~~e. the daily hours of operation, and~~
~~f. the daily mass flow of phosphorous-bearing feed material to the process.~~

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

D.6. EU No. 053 Scrubber Pressure Drop and Flow Rate: In order to provide reasonable assurance, when the phosphoric acid plants are operating, the minimum scrubber pressure drop for the clarification scrubber shall be 2.0 inches of H_2O. The permittee shall comply with **Common Condition CC.6.** for the water flow rates.
[Rule 62-4.070(3), F.A.C.]

D.7. EU No. 048 Scrubber Pressure Drop and Flow Rate In order to provide reasonable assurance, when the 30% Clarification Area (Area 10) is operating, that the pollution control equipment (packed bed scrubber) is operating properly, the minimum pressure drop for the packed bed scrubber shall be 1 inch of H_2O. The permittee shall comply with **Common Condition CC.6.** for the water flow rate.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

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

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

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Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode 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.]

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. 048 and 053 shall be tested to demonstrate compliance with the emissions standard for fluoride (F) from the packed bed scrubbers.
[Rules 62-297.310(7)(a)4., F.A.C.]

D.11. Performance Test Notifications. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[Rule 62-297.310(7), F.A.C.]
{Permitting Note: These emissions units are regulated under Rule 62-297.310(7), F.A.C., Condition TR7}

Recordkeeping and Reporting Requirements

D.12. In order to document compliance with the process rate limitation of **Condition D.1**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations.
[Rule 62-4.070(3), F.A.C.]

D.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

D.14. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

draft proposed

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

EU No.	Brief Description
009	DAP Plant No. 1

The Diammonium Phosphate (DAP) Plant No. 1 produces monoammonium phosphate (MAP) or diammonium phosphate (DAP) at a maximum rate of 150 tons/hour.

Particulate matter, fluoride and sulfur dioxide emissions at the DAP Plant No. 1 are generated from a reactor, granulator, dryer, cooler, and associated equipment. Emissions are controlled by three cyclones, one pre-scrubber, two (2) venturi/cyclonic scrubbers in parallel, and one final scrubber with an impact and cyclonic sprays. Equipment and controls are described in more detail below.

Emissions from the reactor and granulator are routed to the pre-scrubber, then to the R/G and Cooler Venturi/Cyclonic Scrubber. Emissions from the cooler are routed to its own dedicated cyclone, then to the R/G and Cooler Venturi/Cyclonic Scrubber. Emissions from associated equipment are routed to its own dedicated cyclone, then also to the R/G and Cooler Venturi/Cyclonic Scrubber.

Emissions from the dryer are routed to its own dedicated cyclone and then to the Dryer Venturi/Cyclonic Scrubber.

Emissions from the Dryer and the R/G and Cooler Venturi/Cyclonic Scrubbers are then routed to the final scrubber with impact sprays and eventually emitted to the atmosphere through a 133-foot tall main stack.

The venturi/cyclonic scrubbers use phosphoric acid. The final scrubber uses recirculating water.

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity:
a. The operation rate shall not exceed 150 tons/hour of monoammonium phosphate (MAP) or diammonium phosphate (DAP) product.
b. The fuel heat input rate for the dryer shall not exceed 27.7 MMBtu/hour.

[Rules 62-4.160(2) and 62-210.200, Definitions - (PTE), F.A.C.; Construction Permits 1050059-013-AC ~~and~~ 1050059-029-AC; and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.3.]

E.2. Methods of Operation: To control sulfur dioxide emissions from the DAP Plant No. 1 dryer, only natural gas shall be fired as a fuel. During periods of natural gas curtailments, No. 6 fuel oil or better grade fuel oil (as defined in Condition CC.5) may be fired as fuel. [Rules 62-4.070(3) and 62-296.340(5)(c) (escape BART), F.A.C., Construction Permit 1050059-061-AC]

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 Conditions **E.4. – E.5.** are based on the specified averaging time of the applicable test method.}*

draft proposed

E.4. Fluoride (F) Emissions : Fluoride (F) emissions from DAP Plant No. 1 shall not exceed 0.06 pounds/ton of P_2O_5 input and 2.92 pounds/hour {based on 48.7 tons P_2O_5/hour input feed}.
[40 CFR 63.622(a); Rule 62-296.403, F.A.C.]

E.5. Particulate Matter (PM) Emissions: Particulate matter (PM) emissions from DAP Plant No. 1 shall not exceed 15 pounds/hour. This particulate matter emission rate limitation qualified the facility to be exempt from PM RACT.
[Rule 62-296.700(2)(b), F.A.C.; Construction Permit 1050059-061-AC]

E.6. Visible Emission (VE) Limit. Visible emissions shall not be equal to or greater than 20% opacity.
[Rule 62-296.320(4)(b)1., F.A.C.]

Monitoring Requirements

E.7. Raw material input to the plant shall be monitored continuously by a flow measurement device capable of measuring material flows with an accuracy of ± 5 percent over the normal operating range. Calibration of the device shall be performed prior to emissions testing.
[Construction Permits 1050059-013-AC and 1050059-029-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.}

E.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	Determination of Particulate Matter Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode 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.]

E.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.]

E.10. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), DAP Plant No. 1 shall be tested to demonstrate compliance with the emissions standards for:

a. Particulate Matter (PM)
b. Opacity
c. Fluoride

[40 CFR 63.626(a)(1) and (2); Rule 62-297.310(7)(a)4., F.A.C.]

E.11. Compliance Test Procedure:

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E.11.1. Fuel Type During Test: Compliance testing shall be conducted while firing oil, if oil of any type, has been used in the DAP Plant No. 1 dryer for a sum total of more than 400 hours from the previous test. If a test is conducted while firing natural gas, and in the 12 month period following the test, oil of any type is burned for a sum total of more than 400 hours, then an additional visible emission test per **Condition. E.6.** shall be conducted, while burning in that source, within 30 days of having exceeded the 400 hour oil burning limit. A compliance test submitted using a better grade oil, other than No. 6 grade fuel oil, will automatically amend this operation permit to allow subsequent operation on only that better grade oil or a higher ranked oil, unless a compliance test is submitted based on any other allowable permitted oil within 30 days of fuel switching. In the event the curtailment ends, the dryer can be fired on oil for testing purposes after curtailment ends.
[Rules 62-297.310(7)(a)5. and 62-4.070(3), F.A.C.]
*{Permitting Note: Also, see **Appendix TR7** & **CC.2.**}*

E.11.2. Performance Test Notifications. The owner or operator shall notify the Department, at least 60 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a)]
{Permitting Note: These emission units are regulated under 40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a) which supersedes condition TR7.}

Recordkeeping and Reporting Requirements

E.12. Daily Records: A daily record log(s) shall be established and maintained to document, at a minimum, the following:

a. Each method of operation;
b. The daily equivalent P_2O_5 feed;
c. The daily production;
d. The hours of operation;
e. The quantity of natural gas or fuel oil utilized in the dryer;
f. The sulfur content (percent, by weight) of the fuel oil utilized in the dryer; and,
g. Daily average fuel heat input rate to the dryer (MMBtu/hr).

Daily records shall be completed within five (5) business days.
[40 CFR 63.625(b); Rules 62-213.410 and 62-4.070(3), F.A.C.]

E.13. 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.14. Federal Rule Requirements
NSPS Requirement: In addition to the specific conditions listed above, the emissions unit is also subject to the applicable requirements contained in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60 Subpart V – Standards of Performance of Phosphate Fertilizer Industry: Diammonium Phosphate plants. However, this emissions unit is exempt from the requirements of 40 CFR 60 Subpart V if it is in compliance with 40 CFR 63 Subpart BB - National Emissions Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants.
[Rules 62-204.800 and 62-213.440, F.A.C.; 40 CFR 63.631]

NESHAP Requirements: In addition to the specific conditions listed above, the emissions unit is also subject to the applicable requirements contained in 40 CFR 63, Subpart A – General Provisions and 40 CFR 63 Subpart BB

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– National Emissions Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants. The NESHAP common conditions are placed in Subsections MACT A and MACT BB.
[Rules 62-204.800 and 62-213.440, F.A.C.]

E.15. The emissions unit is also subject to the conditions contained in **Subsection CC. Common Conditions.**

draft proposed

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

EU No.	Brief Description
045	DAP Plant No. 2 - East Train
046	DAP Plant No. 2 - West Train
047	DAP Plant No. 2 - West Product Cooler
056	DAP Plant No. 2 - East Product Cooler

The DAP Plant No. 2 consists of two production trains, an East and West Train. Each Train produces monoammonium phosphate (MAP) or diammonium phosphate (DAP) at a maximum rate of 170 tons/hour {approximately 80 tons P_2O_5/hour input feed}. Particulate matter, fluoride and sulfur dioxide emissions from the DAP Plant No. 2 are controlled by two parallel control systems, each consisting of a venturi scrubber followed in series by a tailgas absorption scrubber. The tailgas {packed bed} scrubbers use process water. Exhaust gases from each scrubber control system, East and West Trains, are vented to the atmosphere through 171 foot high stacks. Equipment and controls are described in more detail below.

Emissions from the reactor/granulator discharge are pretreated by a prescrubber and then controlled by the R/G venturi scrubber followed by a tailgas scrubber.

Emissions from associated equipment, e.g., the recycle elevator discharge, the recycle conveyor and the dryer-to-screening elevator discharge, are all pretreated by two equipment cyclones and then controlled by the R/G venturi scrubber followed by a tailgas scrubber.

Each dryer is fired with natural gas at a maximum fuel heat input rate of 36 MMBtu/hr, with No. 6 fuel oil {2.5% sulfur maximum} as an alternative fuel. Emissions from the dryer discharge are pretreated by four dryer cyclones and then controlled by the dryer venturi scrubber followed by a tailgas scrubber.

The DAP Plant No. 2 - West Product Cooler is used to cool product from only the DAP Plant No. 2 West Train. The cooler receives a maximum rate of 170 tons/hour {approximately 80 tons P_2O_5/hour input feed} and is designed to cool the product. Cooled product is discharged to the same product elevator used by DAP Plant No. 2 - East. Emissions from the cooler are controlled by two baghouses in parallel with an approximate total average measured stack gas flow rate of 49,217 dscfm.

The DAP Plant No. 2 - East Product Cooler is used to cool product from only the DAP Plant No. 2 - East Train. The cooler receives a maximum rate of 170 tons/hour {approximately 80 tons P_2O_5/hour input feed} and is designed to cool the product. Cooled product is discharged to the same product elevator used by DAP Plant No. 2 - West Train. Emissions from the cooler are controlled by a four cluster cyclone which vents to a direct contact venturi scrubber. The scrubber is designed to use fresh water or pond water. The scrubber's liquid effluent is recirculated to the cooling pond.

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity.
a. The operation rate for each train, East or West, shall not exceed 170 tons/hour of monoammonium phosphate (MAP) or diammonium phosphate (DAP) product {approximately 80 tons P_2O_5/hour input feed}.
b. The fuel heat input rate for each dryer shall not exceed 36 MMBtu/hr.
[Rule 62-4.160(2), F.A.C.; Rule 62-210.200, F.A.C., Definitions - (PTE); and, Construction Permit 1050059-020-AC/PSD-FL-241]

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F.1.1. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. For emission unit 047 (DAP Plant No. 2 – West Product Cooler), the maximum permitted rate shall be established based on testing of emission unit 046 (DAP Plant No. 2 – West Train). For emission unit 056 (DAP Plant No. 2 – East Product Cooler), the maximum permitted rate shall be established based on testing of emission unit 045 (DAP Plant No. 2 – East Train).
[Rule 62-297.310(2), F.A.C.]

F.2. Methods of Operation - Fuels. The DAP Plant No. 2 dryers shall be fired by natural gas, or No. 6 fuel oil with a maximum sulfur content not to exceed 2.5% sulfur by weight or better grade fuel oil {see **Condition CC.5**}. The maximum fuel heat input rate for each dryer shall not exceed 36 MMBtu/hour and 2.1 million gallons per year unless compliance with the emission limitations of **Condition F.4** have been demonstrated by stack test under conditions of higher heat input.
[BACT determination dated May 5, 1980; June 29, 1989 amendment to Construction Permits AC53-118671; and, 1050059-020-AC/PSD-FL-241]

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.}

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) F.3 – F.9.**are based on the specified averaging time of the applicable test method}*

F.3. Fluoride Emission Limitation: Total fluoride (F) emissions from each train (i.e., East and West Train including East and West Product Coolers) of the DAP Plant No. 2 shall not exceed 3.34 lbs/ hour and 14.6 tons/year (TPY) based on 0.0417 lb F/ton of P_2O_5 input.
{Permitting Note: Fluoride emission limits include cooler emissions.}
[Rule 62-212.410, F.A.C.; and, Construction Permit 1050059-020-AC/PSD-FL-241]

F.4. PM Emission Limitation No. 1: Particulate matter (PM) emissions from the reactor/granulator/dryer stack for each train shall not exceed 6.40 pounds/hour and 28.0 TPY based on 0.08 lb PM/ton of P_2O_5 input.
[Rule 62-212.410, F.A.C.; and, Construction Permit 1050059-020-AC/PSD-FL-241]

F.5. PM Emission Limitation No. 2: Particulate matter (PM) emissions from the East Train cooler stack shall not exceed 6.06 lbs/hour and 26.5 TPY based on 0.011 gr/scf and 64,300 scfm.
[Rule 62-212.410, F.A.C.; and, Construction Permit 1050059-020-AC/PSD-FL-241]

F.6. PM Emission Limitation No. 3: Particulate matter (PM) emissions from the West Train cooler stack shall not exceed 4.22 lbs/hour and 8.5 TPY based on 0.010 gr/scf and 49,200 scfm.
[Rule 62-212.410, F.A.C.; and, Construction Permit 1050059-020-AC/PSD-FL-241]

F.7. Visible Emission Limitation: Visible emissions (VE) from the West Train cooler stack shall not exceed 5% opacity. Visible emissions from all scrubber stacks shall not exceed 15% opacity.
[Rule 62-212.410, F.A.C.; and, Construction Permit 1050059-020-AC/PSD-FL-241]

F.8. SO_2 Emission Limitation: Sulfur dioxide (SO_2) emissions from the reactor/granulator/dryer stack of each train shall not exceed 22.0 pounds/hour and 87.0 TPY.
[BACT (Best Available Control Technology) determination dated May 5, 1980 for Construction Permits AC53-23456, 1050059-020-AC/PSD-FL-241]

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F.9. NO_x Emission Limitation: Nitrogen oxides (NO_x) emissions from the reactor/granulator/dryer stack of each train shall not exceed 12.6 pounds/hour and 55.2 TPY.
[BACT determination of April 27, 1987 for Construction Permits AC53-118671, 1050059-020-AC/PSD-FL-241]

Monitoring of Operations

F.10. Baghouse Pressure Drop: In order to demonstrate compliance with Rule 62-210.650, F.A.C., the permittee shall record the pressure drop across the DAP Plant No. 2 West Product Cooler baghouse daily. Pressure drop may be electronically recorded and reported as average.
[Rule 62-4.070(3), F.A.C]

Test Methods and Procedures

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

F.11. 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 (All PM is assumed to be PM_{10}.
6, 6C	Determination of Sulfur Dioxide Emissions from Stationary Sources
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)
9	Visual Determination of the Opacity of Emissions from Stationary Sources
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode 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., Construction Permit 1050059-030-AC].

F.12. 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. This condition applies to the rate of each train during testing, East or West, per condition F1.
[Rule 62-297.310, F.A.C.]

F.13.1. Annual Compliance Test Required. During each federal fiscal year (October 1st to September 30th), the emission units 045 and 046 shall be tested for:

a. Particulate Matter;
b. Fluorides;
c. Sulfur dioxide (SO_2);
d. Nitrogen oxides (NO_x); and
e. Visible emissions.

*{Permitting Note: Also, see **Appendix TR7.**}*
[40 CFR 63.626(a)(1) and (2); Rule 62-297.310(7)(a)4., F.A.C.]

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F.13.2. Annual Compliance Test Required. During each federal fiscal year (October 1st to September 30th), the emission unit 056 shall be tested for:

a. Particulate Matter;
b. Fluorides;
c. Visible emissions.

*{Permitting Note: Also, see **Appendix TR7.**}*
[40 CFR 63.626(a)(1) and (2); Rule 62-297.310(7)(a)4., F.A.C.]

F.13.3. Frequency of Compliance Testing. The emission unit 047 shall be tested for:

a. Visible emissions during each FFY (October 1st to September 30th);
b. Fluorides every 5 years;

*{Permitting Note: Also, see **Appendix TR7.**}*
[Rules 62-297.310(7)(a)3, and 62-297.310(7)(a)4, F.A.C.]

F.14. EU No. 056 Retest Requirement: If a compliance test is conducted on the DAP Plant No. 2 East Product Cooler (EU 056) when only fresh water is used for scrubber water, a new compliance test shall be required when the scrubber has operated more than 10 days during a calendar year with pond water.
[Construction Permit AC53-177264]

F.15. Fuel Type During Test: Compliance testing shall be conducted while firing No. 6 fuel oil, if No. 6 fuel oil, has been used in the DAP Plant No. 2 dryers for a sum total of more than 400 hours from the previous test. If a test is conducted while firing natural gas, and in the 12 month period following the test, No. 6 fuel oil is burned for a sum total of more than 400 hours, then additional emissions tests per **Condition F.10.** shall be conducted, while burning oil in that source, within 30 days of having exceeded the 400 hour oil burning limit. Annual testing requirements per this Condition can be modified and/or waived under the following conditions:

a. The DAP Plant No. 2 dryers may be tested using natural gas and the sulfur dioxide testing requirement of Condition G.10 is waived if, since the date of the last annual test, except for fuel oil that was utilized for normal periods of start-up, the fuel oil usage in the dryer during normal production operations did not exceed 400 hours. The test report shall include a statement certifying that the conditions of the option have been satisfied.
b. The annual sulfur dioxide testing requirement and the annual nitrogen oxides testing requirement are waived for the DAP Plant No. 2 dryers if the dryers, operating in a normal production mode, except for fuel oil that was utilized for normal periods of start-up, utilized less than 36 Therms per hour of natural gas, exclusively, or utilized less than 24 gallons per hour of fuel oil, exclusively, or the heat input rate was less than 3.6 MMBtu/hour from the equivalent combination of natural gas and fuel oil for the 30 day period (monthly average) just prior to the scheduled test.

If any of the above testing options a. or b. are exercised, the test report shall include a statement certifying that the conditions of the option have been satisfied.
*{Permitting Note: Also, see **Appendix TR7**}*
[Rules 62-297.310(7)(a)4, 62-297.310(7)(a)5, and 62-297.310(8)(c), F.A.C.]

F.16. Certificate of Fuel Oil Analysis: If testing is conducted while firing No. 6 fuel oil in the dryer, compliance with the sulfur content requirement of Condition G.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.]

F.17. Performance Test Notifications. The owner or operator shall notify the Department, at least 60 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the

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test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a)]
{Permitting Note: These emission units are regulated under 40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a) which supersedes TR7}

Recordkeeping and Reporting Requirements

F. 18. Daily Records: In order to document compliance with the rate limitation of **Condition F.1.**, the permittee shall maintain daily records of the amount of material processed, amount of fuels used and the total hours of process operations.
[Rule 62-4.070(3), F.A.C.]

F. 19. Fuel Sulfur Content Records: In order to document continuing compliance with the maximum sulfur content requirement of **Condition F.2.**, the permittee shall maintain a record of the sulfur content and amount of all No. 6 fuel oil received for use in the DAP II Plant dryers. These records may be based on vendor supplied information or analysis of samples taken by the permittee.
[Rule 62-4.070(3), F.A.C.]

F.20. 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. 21. Reasonable Assurance: All reasonable precautions shall be taken to minimize and control the generation of fugitive particulate and fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

F.22. Federal Rule Requirements

NSPS Requirement: In addition to the specific conditions listed above, the emissions units are also subject to the applicable requirements contained in 40 CFR 60, Subpart A – General Provisions and 40 CFR 60 Subpart V – Standards of Performance of Phosphate Fertilizer Industry: Diammonium Phosphate plants. However, these emissions units are exempt from the requirements of 40 CFR 60 Subpart V if it is in compliance with 40 CFR 63 Subpart BB - National Emissions Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants.
[Rules 62-204.800 and 62-213.440, F.A.C.; 40 CFR 63.631]

NESHAP Requirements: In addition to the specific conditions listed above, the emissions units are also subject to the applicable requirements contained in 40 CFR 63, Subpart A – General Provisions and 40 CFR 63 Subpart BB – National Emissions Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants. The NESHAP common conditions, which apply to EU Nos. 045, 046, 047 and 056, are placed in Subsections MACT A and MACT BB. General Provisions and Subpart BB Common Conditions.
[Rules 62-204.800 and 62-213.440, F.A.C.]

CAM Requirement: The emissions unit EU 056 (DAP 2, East Cooler) is also subject to the conditions contained in Subsection CAM.

F.23. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

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

EU No.	Brief Description
011	MAP Prill Plant
055	MAP Plant Cooler

The prill tower located at the MAP Plant produces 50 tons per hour (1200 tons per day) of MAP (mono-ammonium phosphate). Emissions from the prill tower are vented through a venturi scrubber then through a cyclonic demister to control fluorides and particulate matter.

A rotary cooler and a product elevator are located at the MAP Plant. The MAP Plant produces 50 tons per hour (1200 tons per day) of MAP (mono-ammonium phosphate). Emissions from the MAP rotary cooler are vented through a cyclone and then to a 30,000 acfm baghouse collector to control particulate matter. Particulate emissions from the MAP product elevator are also controlled by the above baghouse collector.

Essential Potential to Emit (PTE) Parameters

G.1. Permitted Capacity. The MAP production rate shall not exceed 50 tons per hour.
[Rule 62-4.160(2), F.A.C.; ~~and,~~ Rule 62-210.200, F.A.C., Definitions - (PTE); and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.3.]

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.}

*{Permitting Note: Unless otherwise specified, the averaging time(s) for Specific Condition **G.3.- G.4.** are based on the specified averaging time of the applicable test method.}*

G.3. Emissions from the MAP prill tower scrubber stack shall be limited to the following:
a) Particulate matter emissions shall not exceed 7~~.5~~ pounds/hour,
b) Fluoride emissions shall not exceed 0.83 pounds/hour; and,
c) Visible emissions shall not exceed 20% opacity (6-minute average basis).
[Pursuant to the BACT Determination issued July 9, 1980, Construction Permits AC53-3125, and 1050059-061-AC (BART Exemption)]

G.4. Emissions from the MAP cooler bag collector shall be limited to the following:
a) Particulate emissions shall not exceed 0.02 gr/dscf (4 lbs/hr estimated); and,
b) Visible emissions shall not exceed 5% opacity (6-minute average basis).
[Pursuant to the BACT Determination issued July 9, 1980, Construction Permit AC53-3125]

Monitoring of Operations

G.5. In order to demonstrate compliance with Rule 62-210.650, the permittee shall record the pressure drop across the baghouse daily. Pressure drop may be electronically recorded and reported as average.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

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{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.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 (All PM is assumed to be PM_{10}.
9	Visual Determination of the Opacity of Emissions from Stationary Sources
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode 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.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.]

G.8. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 011 (MAP Prill Plant) tower scrubber shall be tested to demonstrate compliance with the emissions standards for the following pollutants:

a. Particulate Matter;
b. Visible emissions (Opacity); and,
c. Fluoride.

[40 CFR 63.626(a)(1) and (2); Rule 62-297.310(7)(a)4., F.A.C.]

G.9. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), EU 055 (MAP Plant Cooler) baghouse exhaust shall tested for visible emissions.
[Rule 62-297.310(7)(a)4., F.A.C.]
{Permitting Notes: Pursuant to Rule 62-297.620(4), F.A.C., because this source is equipped with a baghouse, the VE test is also submitted in lieu of particulate testing.}

G.10. Performance Test Notifications. The owner or operator shall notify the Department, at least 60 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a)]
{Permitting Note: These emission units are regulated under 40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a) which supersedes TR7}

Recordkeeping and Reporting Requirements

G.11. In order to document compliance with the rate limitation of **Condition.G.1**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations.

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{NOTE: The MAP Plant Cooler process rate is dependent on the MAP production rate. The recording of the amount of material processed and total hours of process operations for the MAP Plant should suffice for the MAP Plant Cooler.}
[40 CFR63.625(b), 40 CFR 63.627(b) and (c); Rule 62-4.070(3), F.A.C.]

G.12. The permittee shall create and keep a daily record log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, the gas pressure drop (inches of water), the date and time of the measurements, and the person responsible for performing the measurements. Pressure drop may be electronically recorded and reported as average.
[Rule 62-4.070(3), F.A.C.]

G.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

Reasonable Assurances

G.14. All reasonable precautions shall be taken to minimize and control the generation of fugitive particulate and fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

G.15. Federal Rule Requirements

NESHAP Requirements: In addition to the specific conditions listed above, the emissions units are also subject to the applicable requirements contained in 40 CFR 63, Subpart A – General Provisions and 40 CFR 63 Subpart BB – National Emissions Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production Plants. The NESHAP common conditions, which apply to EU Nos. 011 and 055, are placed in Subsections MACT A and MACT BB.
[Rules 62-204.800 and 62-213.440, F.A.C.]

G.16. The emissions unit is also subject to the conditions contained in **Subsection CC. Common Conditions.**

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

EU No.	Brief Description
015	Animal Feed Ingredient Shipping/Truck Loadout
023	Animal Feed Ingredient Storage Silos (3)--North Side
024	Animal Feed Ingredient Storage/Shipping/Railcar Loadout
025	Animal Feed Ingredient --(2) Limestone Storage Silos
026	Animal Feed Ingredient --Silica Storage Bin
028	Animal Feed Ingredient Storage Silos (3)--South Side
030	Soda Ash Rail Hopper Car Unloading System
052	Animal Feed Ingredient --Limestone Feed Bin

Animal Feed Ingredient (AFI) Truck Loadout System (-015)
The animal feed ingredient (AFI) product in the truck loadout system is conveyed via the product loadout feed conveyor from either the product storage silos or a hopper in a storage building which is loaded by a payloader. The product then passes through product screens and is conveyed either to one of three truck loading bins, to the bagging bin, or to the railcar loadout conveyor. Trucks are loaded from underneath the truck loading bins by truck loading chutes. Bags are loaded from the product bagging bin in the bagging area. Actual operation of the system is on a batch basis with a conveyor feed rate of 200 tons per hour and an average truck loading rate of 60 tons per hour. Particulate matter emissions from all the above transfer operations are controlled by a bag collector rated at 8,000 ACFM.

AFI Storage Silos North Side and South Side (-023 & -028)
There are six 2,000 ton (each) capacity AFI (animal feed ingredient) storage silos (A, B, C, D, E, and F). These silos, used for the storage of calcium based ingredients, are grouped into two sets of three silos. The silo transfer rate is 120 tons per hour.

Particulate matter emissions from the transfer operations are controlled for each set of three silos by a separate bin vent type bag collector mounted on the center silo. The three silos of each set are joined by openings through the common wall with the center silo. This allows air flow to the collector during transfer of material into each one of the silos. Silos A, C and E (northernmost row of silos) are controlled by a bag collector (Baghouse A) mounted on silo C. Silos B, D and F (southernmost row of silos) are controlled by a bag collector (Baghouse B) mounted on silo D. The airflow for each collector is 1,600 ACFM.

AFI Railcar Loadout System (-024)
The AFI product in the railcar loadout system is conveyed to the railcar loading bin from the truck loadout area by the railcar loadout conveyor. Railcars are loaded from underneath the railcar loading bin by one of four railcar loading chutes. Actual operation of the system is on a batch basis with a conveyor feed rate of 200 tons per hour and an average railcar loading rate of 90 tons per hour. Particulate matter emissions from the above transfer operations are controlled by a bag collector rated at 6,600 ACFM.

AFI Limestone Storage Silos A & B (-025)
The AFI limestone storage silos (A & B) are loaded pneumatically from delivery trucks at a transfer rate of 80 tons per hour (when two trucks are unloaded simultaneously). The silos are joined by an opening through their common wall. This allows air flow to the collector during transfer of material into either one of the silos. Particulate matter emission from the transfer operations are controlled by a bag collector (mounted on silo B) rated at 6,000 ACFM.

AFI Silica Storage Bin (-026)
Silica is unloaded from railcars, trucks or bags (primarily railcars) by a pneumatic system used to vacuum the material out and transfer it to the silica storage bin. The maximum removal rate is 10 tons per hour (taking into

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account the time required to reposition the system in the car the actual average unloading rate is 3 tons per hour). From the storage bin, the silica is sent to the silica slurry tank. As an unloading alternative, a station also exists that allows the silica to be slurried directly to the silica slurry tank. Particulate matter emissions from unloading operations are controlled by a filter/receiver (rated at 1,500 ACFM) mounted on top of the silica storage bin. The silica storage bin is evacuated via a vacuum system consisting of an at grade blower evacuating the filter/receiver which in turn is connected to and evacuates the silica storage bin from the top. The at grade blower discharges via a vent located approximately eighteen feet above grade and has a blower bypass limb. The silica pneumatically loaded from truck or railcar thus enters the filter/receiver vessel and is dropped into the silica storage bin via a rotary air lock.

Soda Ash Rail Hopper Car Unloading (-030)
Soda Ash is unloaded from railcars, trucks or bags (primarily railcars) by a pneumatic system used to vacuum the material out and transfer it to the soda ash storage bin. The estimated removal rate is 12.5 tons per hour. From the storage bin, the soda ash is sent to the AFI Facility.

AFI Limestone Feed Bin (-052)
The AFI limestone feed bin is used as an intermediate storage step in the AFI production process. Limestone is transferred to the feed bin pneumatically from the limestone storage silos at a rate of 75 tons per hour. From the feed bin the limestone is transferred to the production process via a feed conveyor. Particulate matter emission from the transfer operations are controlled by a bag collector rated at 1,600 ACFM.

Essential Potential to Emit (PTE) Parameters

H.1. Permitted Capacity.

a. The AFI product transfer rate for truck and railcar loadout shall not exceed 200 tons per hour (daily average).
b. The process rate for the soda ash unloading system shall not exceed 12.5 tons per hour (daily average) of soda ash.
c. The AFI product storage silo transfer rate shall not exceed 120 tons per hour (daily average) for each set of three linked silos (North and South Side). (see Condition**.I.1**)
d. The limestone transfer rate shall not exceed 80 tons per hour (daily average) for the AFI limestone storage silos.
e. The limestone transfer rate shall not exceed 75 tons per hour (daily average) for the AFI limestone feed bin.
f. The silica storage bin transfer rate shall not exceed 10.0 tons per hour(daily average).

[Rule 62-4.160(2), F.A.C.; and, Rule 62-210.200, F.A.C., Definitions - (PTE)]

H.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. For emissions units 023 and 025, the maximum permitted rates shall be established based on testing of emissions unit 027, AFI plant.
[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.}

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Conditions H.3 – H.4.** are based on specific averaging time of the applicable test method.}*

H.3. Particulate Matter (PM) emissions from these emission units shall not exceed the following rates listed below:

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E.U. ID.	Brief Description	Particulate Matter (PM) Limit, lbs/hr
015	Animal Feed Ingredients Shipping/Truck Loadout	3.6
023	Animal Feed Ingredients Storage Silos (3) - North Side	4.75
024	Animal Feed Ingredients Storage/Shipping/Railcar Loadout	3.6
025	Animal Feed Ingredients - (2) Limestone Storage Silos	3.6
026	Animal Feed Ingredients - Silica Storage Bin	1.6
028	Animal Feed Ingredients Storage Silos (3) - South Side	4.75
052	Animal Feed Ingredients - Limestone Feed Bin	3.6

[Construction Permit AC53-23546 (DAP Plants) and subsequent AFI truck and railcar loadout operation permit were amendments dated November 18, 1981 as requested by the permittee to avoid PM-RACT in accordance with 62-296.700(2)(b), F.A.C.]

H.4. Visible emissions from any of these emissions units shall not be equal to or greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

Monitoring of Operations

H.5. In order to demonstrate compliance with Rule 62-210.650, the permittee shall record the pressure drop across the baghouse daily.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

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

H.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 (All PM is assumed to be PM_{10}.
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.
[Rule 62-297.401, F.A.C.]

H.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.]

H.8. Frequency of Compliance Testing. The permittee shall test the emissions from the AFI product truck and railcar loadout baghouses; the AFI product storage silo baghouses; the AFI limestone storage silo and AFI limestone feed bin baghouses; soda ash rail hopper car unloading system and the silica unloading and storage baghouse for the following pollutants as shown below:

E.U. ID	Description	Opacity Test Interval	Particulate Matter Test Interval
-015	Animal Feed Ingredients Shipping/Truck Loadout	During each FFY	Five Years
-023	Animal Feed Ingredients Storage Silos (3) - North Side	During each FFY	Five Years

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-024	Animal Feed Ingredients Storage/Shipping/Railcar Loadout	During each FFY	Five Years
-025	Animal Feed Ingredients - (2) Limestone Storage Silos	During each FFY	Five Years
-026	Animal Feed Ingredients - Silica Storage Bin	During each FFY	Five Years
-028	Animal Feed Ingredients Storage Silos (3) - South Side	During each FFY	Five Years
-030	Soda Ash Rail Hopper Car Unloading System	During each FFY	Not Required
-052	Animal Feed Ingredients - Limestone Feed Bin	During each FFY	Five Years

FFY: federal fiscal year (October 1st to September 30th)
[Rules 62-297.310(7)(a)3., and 62-297.310(7)(a)4., F.A.C.]

H.9. Performance Test Notifications. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[Rule 62-297.310(7), F.A.C.]
{Permitting Note: These emissions units are regulated under Rule 62-297.310(7), F.A.C., Condition TR7}

Recordkeeping and Reporting Requirements

H.10. In order to document compliance with the rate limitations of **Condition H.1.**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations*.

*{NOTES: The AFI product storage silo transfer rate (North and South Side silos) is dependent on the AFI production rate. The recording of the amount of material processed and total hours of process operations for the AFI Granulation Plant (See Condition **I.10.**) should suffice for the AFI product storage silos. *Engineering estimates may be used to estimate these parameters.}*
[Rule 62-4.070(3), F.A.C.]

H.11. The permittee shall create and keep a daily record log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, the gas pressure drop (inches of water), the date and time of the measurements, and the person responsible for performing the measurements. Pressure drop may be electronically recorded and reported as average.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

H.12. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

H.13. PSD Applicability Monitoring, Reporting & Recordkeeping Requirements - AFI Silica Storage Bin (-026): Permit No. 105059-072-AC was based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.

a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change {note: the project under Permit No. 105059-072-AC

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was completed in 2012, therefore, the 5-year period is effective for calendar year (CY) 2013 emissions through CY 2017 emissions}. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C.

b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

1) The name, address and telephone number of the owner or operator of the major stationary source;

2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C.;

3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and

4) Any other information that the owner or operator wishes to include in the report.

c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

For this project, the Department requires the annual opacity reporting and once in every five years reporting of particulate matter (PM and PM_{10}) emissions for E.U. ID No. 026.

[Rules 62-212.300(1)(e) & 62-210.370, F.A.C.; and, Permit No. 105059-072-AC, Specific Condition 2.8.]

H.14. Source Obligation for AFI Silica Storage Bin (-026):

a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.; and, Permit No. 105059-072-AC, Specific Condition 2.7.]

H.1~~3~~5. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

draft proposed

Subsection I. Emissions Unit No. 027

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

EU No.	Brief Description
027	Animal Feed Ingredient Granulation Plant

The Animal Feed Ingredient (AFI) Granulation Plant produces 120 tons/hour of animal feed. Emissions are generated from the reactor, pug mill, granulator, dryer, screening system and cooler. The dryer is fired with natural gas or new, No. 6 fuel oil or better grade fuel oil if natural gas is curtailed at a fuel heat input rate of 135 MMBtu/hr. Particulate matter emissions are controlled by 4 venturi scrubbers and 3 cyclones. All emissions vent through one stack.

Essential Potential to Emit (PTE) Parameters

I.1.0. Permitted Capacity.
a. The process/operation rate shall not exceed 120 tons per hour of animal feed ingredients.
b. The maximum fuel heat input rate for the dryer is 135 MMBtu/hour (daily average).
[Rule 62-4.160(2), F.A.C.; ~~and,~~ Rule 62-210.200, F.A.C., Definitions - (PTE); and, Permit No. 1050059-061-AC, BART Exemption Project, Specific Condition 3.A.3.]

I.1.1. Emissions Unit Operating Rate Limitation During and After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

I.2. Methods of Operation - Fuels. The dryer shall be fired with only natural gas as fuel. During periods of natural gas curtailment, No. 6 fuel oil, or better grade fuel oil (See **Condition CC.5**.) may be fired as fuel. [Rule 62-213.410, F.A.C.; 1050059-061-AC (BART Exemption)]

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.}

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Conditions I.3 – I.4.** are based on specific averaging time of the applicable test method.}*

I.3. The maximum allowable particulate matter emission rate from this plant shall not exceed 36.8 pounds/hour. [Requested by the permittee to avoid PM-RACT in accordance with Rule 62-296.700(2)(b), F.A.C.; 1050059-061-AC (BART Exemption]

I.4. Visible emissions shall not be equal to or greater than 20% opacity from the stack.
[Rule 62-296.320(4)(b), F.A.C.]

Monitoring of Operations

I.5. In order to provide reasonable assurance, when the AFI Granulation Plant is operating, that the pollution control system is operating properly, the permittee shall comply with **Common Condition No. CC.6.**
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

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

I.6. Test Methods. Required tests shall be performed in accordance with the following reference methods:

draft proposed

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 (All PM is assumed to be PM_{10}.)
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.
[Rule 62-297.401, F.A.C.]

I.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.]

I.8. Annual Compliance Test Required. During each federal fiscal year (October 1st to September 30th), EU 027 shall be tested to demonstrate compliance with the emissions standards for:

a. Particulate Matter; and
b. Opacity.

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

I.9. Performance Test Notifications. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[Rule 62-297.310(7), F.A.C.]
{Permitting Note: These emissions units are regulated under Rule 62-297.310(7), F.A.C., Condition TR7}

Recordkeeping and Reporting Requirements

I.10. In order to provide reasonable assurance that the control equipment is operating properly, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum, the volumetric liquid flow rate, the gas pressure drop, the date and time of the measurements, and the person responsible for performing the measurements. A record log entry shall be made at least once for every 12 hour period that the AFI Granulation Plant operates.
[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

I.11. In order to document compliance with the rate limitation of **Condition I.1.**,the permittee shall maintain daily records of the amount of material processed, fuels used and the total hours of process operations.
[Rule 62-4.070(3), F.A.C.]

Other Requirements

I.12. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.
[Rule 62-4.070(3), F.A.C.]

I.13. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

draft proposed

Subsection J. Emissions Units. 060, 062, 063, 064, 065, 066, 067, 068, 069 & 080

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

EU No.	Brief Description
060	7,500 Ton Rail Storage Molten Sulfur Storage Tank
062	15,000 Ton Molten Sulfur Storage Tank
063	1,500 Ton Truck Unloading Pit, Sulfur Pit (North)
067	1,500 Ton Truck Unloading Pit, Sulfur Pit Front Vent
068	1,500 Ton Truck Unloading Pit, Sulfur Pit Rear Vent
064	350 Ton Truck Unloading Pit, Sulfur Pit (South)
069	350 Ton Truck Unloading Pit, Sulfur Pit Vent
065	800 Ton Railcar Unloading Pit
066	200 Ton Molten Sulfur Transfer Pit
080	1 Molten Sulfur Truck Loading Station

The molten sulfur storage and handling system consists of one 7,500 ton molten sulfur storage tank, one 800 ton railcar unloading pit, one 1,500 ton truck unloading pit (north), one 350 ton truck unloading pit (south), one 15,000 ton molten sulfur storage tank, a new molten sulfur truck loading station, and the associated transfer pumps and piping. The permittee trucks any additional molten sulfur offsite.

{Note: Although the 1,500 ton Truck Unloading Pit is technically a single emission unit, emission unit numbers -063, -067, and -068 have been assigned to it to accommodate the data handling system (each vent is inputted separately). In addition, the 350 Ton Truck Unloading Pit is technically a single emission unit, emission unit numbers -064 and -069 have been assigned to it to accommodate the data handling system.}

Essential Potential to Emit (PTE) Parameters

J.1. Permitted Capacity:

a. These emissions units are permitted to operate continuously, 8,760 hours per year.
b. The molten sulfur throughput rate (as measured by the amount received) shall not exceed 14,000 tons per day, and shall not exceed 2,110,000 tons per consecutive 12-month period.
c. The molten sulfur usage rate by this production facility shall not exceed 1,760,000 tons per consecutive 12-month period as measured by the amount received minus the amount shipped offsite.

[Rules 62-4.160(2) and 62-210.200, Definitions - (PTE), F.A.C.; Construction Permits AC53-163774 and 1050059-034-AC]

Emission Limitations and Standards

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

J.2. Emissions Inventory.
{Permitting Note: For emission inventory and PSD purposes, the estimated maximum emissions from the emissions units are noted below}:

EU No.	E.U.	PM/PM_{10}		SO_2		TRS/H_2S		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
-063, -067, -068	No. 1 Truck Pit	0.2	0.8	0.3	1.2	0.1	0.6	0.2	0.7
-064, -069	No. 2 Truck Pit	0.1	0.3	0.1	0.5	0.1	0.2	0.1	0.3
-065	Rail Pit	0.2	0.8	0.3	1.2	0.1	0.6	0.2	0.7

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-066	Transfer Pit	0.1	0.4	0.1	0.4	0.1	0.2	0.1	0.2
-060	Rail Storage Tank	0.6	2.6	0.5	2.1	0.2	1.0	0.3	1.2
-062	No. 3 Storage Tank	0.6	1.1	0.5	2.2	0.2	1.0	0.3	1.0
	Totals	1.8	6.0	3.7	7.6	0.8	3.6	1.2	4.1

[Construction Permit AC53-163774]

Recordkeeping and Reporting Requirements

J.3. In order to document compliance with Specific **Condition J.1.**, the permittee shall keep the following records at a minimum:

A) Facility ID number.
B) Month, Day, and Year.
C) Throughput rate for the Molten Sulfur System (as measured by the amount received) in tons/day. This will be calculated by the total amount of molten sulfur received in a day.
D) Usage Rate of Sulfur by the production facility in tons/day. This will be calculated by the total amount of molten sulfur used by the facility in a day.
E) Monthly total sulfur received (tons/month).
F) Monthly total sulfur usage by the production facility (tons/month).
G) A consecutive 12 month period (most recent 12 months) of the throughput rate (as measured by the amount received) in tons/year will be maintained for compliance with the annual limit.
H) A consecutive 12 month period (most recent 12 months) of the production facility usage rate in tons/year will be maintained for compliance with the annual limit.

The daily recordkeeping log shall be completed by the end of the following week. The monthly recordkeeping log shall be completed by the end of the week following the end of the preceding month. The above records shall be maintained for a minimum of the most recent five (5) year period and made available to the Department upon request.

[Rules 62-213.440(1) and 62-4.070(3), F.A.C. and Permit No. 1050059-034-AC]

J.4. Records Retention. The permittee shall record the Facility ID, Location, Date, Time, and Operator initials of watering or sweeping to control unconfined emissions of particulate matter on roads for periods when Sulfur Truck Loading occurs. Such records shall be retained for a minimum of five (5) years and shall be available for inspection by the Department upon request.
[Rules 62-4.070(3) and 62-213.440(1), F.A.C. and Construction Permit 1050059-034-AC]

Other Requirements

J.5. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

draft proposed

Subsection K. Emissions Unit No. 070

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

EU No.	Brief Description
070	Limestone Storage Silo/Rock Grinding

The storage silo has a working capacity of 200 to 1000 tons of material (ground limestone). The limestone is transported to the New Wales Facility by tanker truck, stored in the silo, and then used to neutralize the process water in the wet rock grinding operation, as required. Particulate matter (PM) emissions from the storage silo during pneumatic loading of the limestone are controlled by a pulse type bag collector. Fugitive PM emissions are be controlled by the use of good work practices.

Essential Potential to Emit (PTE) Parameters

K.1. Permitted Capacity. The unloading rate shall not exceed 50 tons per hour.
[Rules 62-4.160(2) and 62-210.200, F.A.C., Definitions - (PTE), F.A.C.]

K.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.}

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Conditions K.3 – K.4.** are based on specific averaging time of the applicable test method.}*

K.3. Visible Emissions (VE). Visible emissions from baghouse exhaust, and the associated storage or conveying equipment, shall not be equal to or greater that 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

K.4. Particulate Matter (PM). The maximum allowable emission rate of particulate matter from the baghouse exhaust is 0.7 pounds per hour and 3.0 tons per year.
[Rules 62-296.700(2)(b) and 62-212.300, F.A.C. and Requested in Permit Application, 10/02/95]

{Permitting Note: Emission limits based on a grain loading value of 0.03 grains per dry standard cubic foot and a design air flow rate of 2700 dry standard cubic feet per minute (3000 actual cubic feet per minute).}

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.5. 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 (All PM is assumed to be PM_{10}.)
9	Visual Determination of the Opacity of Emissions from Stationary Sources

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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.]

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

K.7. Annual Compliance Test Required. During each federal fiscal year (October 1st to September 30th), EU 070 shall be tested to demonstrate compliance with the emissions standards for visible emissions.
[Rule 62-297.310(7)(a)4., F.A.C.]

K.8. Frequency of Compliance Testing. Test for particulate matter emissions per **Condition K.4**, every 5 years. The annual visible emissions test required per **Condition K.3** shall be conducted concurrently with this particulate matter emissions test.
[Rules 62-297.310(7)(a)3, F.A.C.]

K.9. Performance Test Notifications. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[Rule 62-297.310(7), F.A.C.]
{Permitting Note: These emissions units are regulated under Rule 62-297.310(7), F.A.C., Condition TR7}

Monitoring of Operations and Recordkeeping and Reporting Requirements

K.10. The permittee shall create and keep a daily record log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, the gas pressure drop (inches of water), the date and time of the measurements, and the person responsible for performing the measurements.
[Rule 62-4.070(3), F.A.C.]

K.11. In order to document compliance with the process rate limitation of **Condition K.1**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations.*
*{*NOTE: Engineering estimates may be used to estimate these parameters.}*
[Rule 62-4.070(3), F.A.C.]

Other Requirements

K.12. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

draft proposed

Subsection L. Common Conditions

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

EU No.	Brief Description
071	Phosphogypsum Stack

{Permitting Note(s): This emissions unit is regulated by NESHAP 40 CFR 61 Subparts A and R

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

40 CFR 61 Subpart A and R

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

Note: This federal regulation has not been adopted by the State of Florida.

draft proposed

Subsection M. Emission Unit 078

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

EU No.	Brief Description
078	Granular Monoammonium Phosphate (GMAP) Plant

The existing Granular Triple Super Phosphate (GTSP) Plant was converted to a Granular Monoammonium Phosphate (GMAP) Plant. Some of the existing GTSP equipment, as well as new equipment, was used in the conversion. The converted plant has a maximum production rate of 150 tons per hour of GMAP (75 TPH P_2O_5 feed). The production of GTSP is not allowed, unless authorized in a subsequent construction permit. GMAP is made by reacting anhydrous ammonia and phosphoric acid in a covered reaction tank with the further addition of ammonia and acid in a granulator. The granulated product is then dried in a rotary drier. The dried product is further processed by screening, milling (oversized), and reprocessing (undersized). The properly sized product is conveyed to the storage building for eventual load out.

The dryer has a maximum design heat rate input of 63.7 MMBtu/hr and is fired with natural gas or No. 6 fuel oil (2.50% sulfur max.). The maximum heat rate input used in GMAP production is 30 MMBtu/hr. The rate shall be controlled by the operator through instrumentation either manually or automatically.

The emissions unit includes a reactor, granulator, product cooler and polishing screens. The granulator is 12' diameter x 27' foot long. It is fitted with an ammonia sparger to produce a drier GMAP product. Design air flow rate through the granulator is 26,000 acfm.

Air Pollution Control System Emissions from the dryer, product cooler and material handling equipment are directed to cyclones for product recovery. Emissions from the reactor, granulator, dryer cyclones and cooler cyclone are directed to the Main Scrubber System. The Main Scrubber System includes a venturi and dual cyclonic demisters, which are used to recover ammonia and to control particulate matter and fluoride emissions. The scrubbing medium is recirculated phosphoric acid. Remaining fluoride and particulate matter are further controlled by 3 impact sprays, an irrigated Kimre™ pad, and a Kimre™ demist pad. The scrubbing medium is recirculated fresh water. Emissions from various material handling equipment are directed to the Equipment Scrubber System, consisting of a venturi, 4 impact sprays, and a cyclonic demister for control of particulate matter and fluoride emissions. The scrubbing medium is recirculated fresh water. The Main Scrubber System and the Equipment Scrubber System are ducted to a common stack for exhaust to the atmosphere.

{Note: If requested, the Department is amenable to authorizing a test program to evaluate an alternate control method consisting of an additional Main Scrubber System impact spray in place of the irrigated Kimre™ pad. This configuration is referenced as Option 4 in the accompanying BACT Determination. The additional impact spray may be installed, but not operated, unless in conjunction with the aforementioned test program.}

Product Transport, Storage, and Loadout GMAP shall be oiled and conveyed to a storage building via the product conveyor. Oiled GMAP is not expected to be a source of particulate matter emissions. As a result, use of the storage building scrubber system is not required by this permit. GMAP will be stored in the northern portion of the existing product storage building and loaded into railcars or trucks by the existing loadout system.

Granular MAP/DAP Emissions Sources & Associated Control Equipment

Process Emissions Source	Control Equipment
Reactor, Granulator, Dryer and Product Cooler	Main Scrubber System: Venturi, 2 Cyclonic Demisters, 3 Impact Sprays, Irrigated Kimre™ Pad and Kimre™ Demister Pad
Dryer Lump Breaker, Dryer Spillage Belt,	Equipment Scrubber System: Venturi, 4

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Granulator Feed Elevator, Screens Feed Elevator, Recycle Conveyor, Chain Mills (4), Screens (4) – following Screens Feed Elevator, Product Elevator and Cooler Feed Conveyor	impact sprays, and Cyclonic Demister.
Polishing Screens (A & B) and Product Bin	Indirectly vented to Product Cooler
Product Conveyor	Covered Conveyor
Product Storage Building	Enclosed Building

Permitting Notes:

- The GMAP Plant is subject to 40 CFR 63, Subpart BB - National Emissions Standards for Hazardous Air Pollutants from Phosphate Fertilizer Plants.
- The GMAP Plant is subject to Rule 62-296.403(i), F.A.C. – Phosphate Processing.

Referenced Documents from this Subsection:
Best Available Control Technology (BACT) Determination dated 07/27/2000 (not attached to this permit).
Alternate Procedures and Requirements ASP No. 95-H-01 (Appendix ASP)

These documents relevant to this Subsection are on file with permitting authority:
DEP Memorandum dated December 17, 1983: Simultaneous Test for Fluorides and Particulates.
Letter from DEP dated September 30, 1983: Testing of Fluorides and Particulates.
Letter from Mr. Tom Fuchs dated September 20, 1983: Testing of Fluorides and Particulates.

Essential Potential to Emit (PTE) Parameters

M.1. Permitted Capacity The P_2O_5 process input rate shall not exceed 75 TPH (daily average basis) and 657,000 tons per consecutive 12-month period.
[Rules 62-4.160(2) and 62-210.200, F.A.C., Definitions - (PTE), F.A.C.; Construction Permit 1050059-030-AC]

M.2. Production Capacity: The maximum production rate of GMAP shall not exceed 150 TPH (daily average basis) and 1,314,000 tons per consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C.; Construction Permit 1050059-030-AC]

M.3. Allowable Fuel: The permittee is authorized to burn only the following fuels in the dryer:
(a) Fuel heat input 30.0 mmBtu/hr (daily average) Natural gas.
(b) Fuel heat input 30.0 mmBtu/hr (daily average) New No. 6 fuel oil or better grade with a fuel oil sulfur content of up to 2.50% S, by weight (see CC.5 for the definition of a better grade fuel oil).
*{Permitting Note: **Condition Nos. M.3.** and **M.4.** ensure that the increase in SO_2 emissions due to this project is below the PSD significant increase level and therefore a PSD review was not triggered. Also refer to **CC.5** for the definition of a better grade fuel oil}*
[Rules 62-210.200(PTE) and 62-212.400(2)(g), F.A.C.; Construction Permit 1050059-030-AC]

M.4. Fuel oil consumption: No more than 1,448,895 gallons of new No. 6 fuel oil (based on a sulfur content of 2.50% S by weight or equivalent gallons adjusted for actual sulfur content) shall be fired in the dryer in any consecutive 12-month period.
*{Permitting Note: **Condition Nos. M.3.** and **M.4.** ensure that the increase in SO_2 emissions due to this project is below the PSD significant increase level and therefore a PSD review was not triggered.}*
[Rules 62-210.200(PTE) and 62-212.400(2)(g), F.A.C.; Construction Permit 1050059-030-AC]

draft proposed

M.5. Work Practices (Reasonable Precautions): The following work practices (reasonable precautions) shall be followed:

a. apply dust suppressant to the GMAP prior to discharge to the product conveyor and, if necessary, apply additional oil at product loadout;
b. maintain covers and/or enclosures for the product conveyor; and,
c. maintain roof/walls for the product storage building.

[Rule 62-296.320(4)(c)2, F.A.C. and Construction Permit 1050059-030-AC]

M.6. 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.}

M.7. Fluoride (F) Emissions: Total fluoride emissions from the GMAP Plant shall not exceed 0.032 lb F/ton of P_2O_5 input, 2.40 lb/hr, and 10.5 tons per year.
[Rule 62-210.200 (PTE), F.A.C.; BACT Determination dated 07/27/2000 and Permit No. 1050059-030-AC]

M.8. PM/PM_{10} Emissions: PM/PM_{10} emissions from the GMAP Plant shall not exceed 0.0645 lb PM/ton of product, 9.68 lb/hr, and 42.4 tons per year.
{Permitting Note: This limit is more stringent than a previous limit established to avoid PM RACT (see IMC letter dated 11/29/94)}
[Rules 62-210.200 (PTE) and Construction Permit 1050059-030-AC]

Monitoring of Operations

M.9. Main Scrubbing System Parameters: The permittee shall determine and record the Main Scrubber System venturi scrubbing medium pH, via grab or composite sample, at least once per operating day.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

M. 10. CAM Plan: The Equipment Scrubber in this emissions unit is subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendices CAM and CAM Plan. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emission 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.}

M.11. 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
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS –

draft proposed

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

M.12. 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.]

M.13. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), the emission unit shall be tested to demonstrate compliance with the emissions standards for fluoride (F).
[40 CFR 63.626(a)(1); Rule 62-297.310(7)(a)4., F.A.C.; Construction Permit 1050059-030-AC]
{Permitting Note: Since there is reason to believe that fluoride emissions increase with increasing ambient temperature, if the testing is not conducted during May through October, additional testing may be required.}

M.14. Tests Prior to Permit Renewal: Compliance tests shall be performed for PM/PM_{10} once every 5 years. Within the 12-month period prior to but no later than 270 days prior to the expiration date of the facility's Title V Air Operation Permit, the emissions unit shall be tested to demonstrate compliance with the emission limits in Specific Condition **M.8**. for PM/PM_{10}.
[Rule 62-297.310(7), F.A.C.; Construction Permit 1050059-030-AC]

M.15. Performance Test Notifications. The owner or operator shall notify the Department, at least 60 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a)]

{Permitting Note: These emission units are regulated under 40 CFR 63.9(e); 40 CFR 63.607(a) or 40 CFR 63.627(a) which supersedes condition TR7.}

Recordkeeping and Reporting Requirements

M.16. Test Report: The permittee of an air pollution emissions unit, for which compliance tests are required, shall file a report with the Air Compliance Section of the DEP-SWD on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after each test is completed. The test report shall provide, at minimum, the information required in Rule 62-297.310(8), F.A.C. In addition the report shall provide the following information for each test run:

- GMAP production rate (TPH);
- P_2O_5 input rate (TPH);
- Heat input rate (MMBtu/hr) and fuel type;
- Liquid flowrate (gpm) and pressure drop (inches H_20) for the venturi scrubbers and the irrigated Scrubber pad;
- Liquid flowrate (gpm) for the impact sprays;
- pH for the Main Scrubber System venturi scrubbing medium.

[Rule 62-297.310(8), F.A.C.; Construction Permit 1050059-030-AC and TR8, Appendix TR]

M.17. Statement of fuel with test report: Compliance testing of the GMAP Plant shall be conducted when firing No. 6 fuel oil if fuel oil has been used in the plant for more than 400 hours for the previous 12-month period

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preceding the test, or if it is expected to be used in the plant for more than 400 hours during the next 12- month period. If the test is conducted while firing natural gas and in the 12-month period following the test No. 6 fuel oil is burned for more than 400 hours, then additional fluoride and PM/PM_{10} tests (while burning No. 6 oil in the plant) shall be conducted within 30 days of having passed the 400 hour fuel oil burning level. The permittee shall submit a statement of the fuel operating mode (type of fuel and heat input rate) as a part of the compliance test report. Failure to submit the fuel operation mode statement may invalidate the data and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C.; Construction Permit 1050059-030-AC]

M.18. Test report with additional Information: If emission testing is conducted while firing No. 6 fuel oil, compliance with the No. 6 oil sulfur content limitation in **Condition No. M.4.** shall be demonstrated during the test through submission of either of the following with the test report:

(a) Results of fuel oil analysis from the fuel oil vendor showing the sulfur content representative of the fuel fired during the compliance test;
(b) Results of a fuel oil analysis showing the sulfur content for a fuel oil sample taken during the compliance test.

[Rule 62-213.440, F.A.C.; Construction Permit 1050059-030-AC]

M.19. Recordkeeping Log: A recordkeeping log shall be established and maintained to document compliance with **Condition Nos. M. 1, 2, 4** and **17.** The daily logs shall be updated and completed by the end of the next operating day. The monthly logs shall be updated and completed by the 15th day of the following month. The logs shall include, at a minimum, the following:

Daily (by the end of the next operating day)

(a) date;
(b) hours of operation;
(c) the calculated P_2O_5 feed rate (TPH, daily average basis);
(d) the calculated GMAP production rate (TPH, daily average basis), noting the conversion factor;
(e) hours and type of fuel oil usage;

Monthly (by the 15th day of the following month)

(f) month;
(g) monthly P_2O_5 input and production of GMAP (tons);
(h) P_2O_5 input and production of GMAP for the most recent consecutive 12-month period (tons);
(i) monthly total fuel oil usage (gallons);
(j) total fuel oil usage for the most recent consecutive 12-month period (gallons);
(k) monthly total hours of fuel oil usage;
(l) total hours of fuel oil usage for the most recent consecutive 12-month period.

These records shall be retained on file at the facility for at least five years and shall be made available to the Department upon request.
[40 CFR 63.625(b); Rule 62-213.440(1)(b), F.A.C.; Construction Permit 1050059-030-AC]

Other Requirements

M.20. NESHAP Requirements: In addition to the specific conditions listed above, the emissions unit is also subject to the applicable requirements contained in 40 CFR 63, Subpart A – General Provisions and 40 CFR 63 Subpart BB – National Emissions Standards for Hazardous Air Pollutants from Phosphate Fertilizer Production

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Plants. The NESHAP conditions of E.U. No. 009 are placed in Subsections MACT A and MACT BB. General Provisions and Subpart BB Common Conditions.
[Rules 62-204.800 and 62-213.440, F.A.C.]

M.21. PSD Applicability: Based on the limitations contained in Permit No. 1050059-030-AC, this modification at an existing PSD major facility is not considered a significant modification subject to PSD review on the basis that the net emissions increases associated with the modification were determined to be not significant (ref. Table 2, Rule 62-212.400, F.A.C.). Should the permittee request relaxation of any emission or operational limitations in this permit that would affect the potential to emit of this facility, the Department will evaluate the applicability of the PSD requirements of Chapter 62-212, F.A.C. as if the modifications allowed by this permit had not yet taken place.
[Rule 62-212.400(2)(g), F.A.C.; Construction Permit 1050059-030-AC]

M.22. The emissions unit is also subject to the conditions contained in **Subsection CC. Common Conditions.**

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Subsection N. Emission Units 087, 088 and 089

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

EU No.	Brief Description
087	Existing Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE) ≤ 500 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)
088	Existing Non-Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE) 100≤ HP ≤ 500 (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)

NOTE - IMPORTANT REGULATORY CLASSIFICATIONS -

This Title V facility contains emergency and general purpose stationary compression ignition (CI) internal combustion 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 087 - Existing Emergency Stationary CI RICE < 500 HP, consists of the following stationary compression ignition (CI) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Emergency Engine Location/Purpose
Cummins, Model NTA855P450	425	Prior to June 12, 2006	No. 2 Deepwell
Cummins, Model ~~NTA855F2~~NTC-350	350	Prior to June 12, 2006	C1 Diesel Fire Pump
Cummins, Model IND355BC	335	Prior to June 12, 2006	Decant Pump
Detroit, Model 12V71	350	Prior to June 12, 2006	C1 # 5 Generator
Ford, Model 4500EM//T-4668	105	Prior to June 12, 2006	DAP # 2 East, Acid Booster

EU 088 - Existing Non-Emergency CI RICE 100≤HP≤ 500 HP, consists of the following stationary compression ignition (CI) Reciprocating Internal Combustion Engine (RICE) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Engine Location/Purpose
Cummins, Model No. 6BT	~~140~~204	Prior to June 12, 2006	C-1 Liqua Water Blaster
~~Detroit, Model No. 453~~John Deere 4054 TF1501	~~110~~99	Prior to June 12, 2006 {1/1/2003}	Booster Pump
~~Caterpillar, Model No. 3408~~	~~325~~	~~Prior to June 12, 2006~~	~~S/S Compressor~~
Cummins	204	Prior to June 12, 2006	Water Blaster

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(**Stationary RICE Engine Listing Note** – The above listings of stationary CI RICE engines at this facility is based upon the information submitted by the facility.)

NOTE - IMPORTANT REGULATORY CLASSIFICATIONS:

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

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

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

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

The following specific condition(s) apply to the emissions units 087 and 088 listed above:

Applicable Federal Requirements

N.1. Federal 40 CFR 63 NESHAP Subpart ZZZZ Requirements - The engines in EU Nos. 087 and 088 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).)

N.2. Federal NESHAP 40 CFR 63 Subpart A General Provisions Requirements - The engines in EU Nos. 087 and 088 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]

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Subsection MACT A. 40 CFR 63 Subpart A – General Provision Common Conditions

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

EU No.	Brief Description
008	Phosphoric Acid Plant (East)
017	Phosphoric Acid Plant (West)
039	Phosphoric Acid Plant No. 3
009	DAP Plant #1
045	DAP Plant No. 2 - East Train
046	DAP Plant No. 2 - West Train
047	DAP Plant No. 2 – West Product Cooler
056	DAP Plant No. 2 East Product Cooler
011	MAP Prill Plant
055	MAP Plant Cooler
078	GMAP Plant

{Permitting Note: The 40 CFR 63 Subparts A and AA requirements take precedence over NSPS standards, but will not take precedence over BACT determinations. However, these emissions units are subject to all applicable NSPS standards if these emissions units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these emissions units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP.}

<u>40 CFR 63, Subpart A - General Provisions</u>

The following are new Specific Conditions from 40 CFR 63 - Subpart A that apply to the emissions units listed above:

MACT.A.1. The emissions units listed above shall comply with **Appendix 40 CFR 63 Subpart A - General Provisions** attached to this permit.
[Rule 62-204.800(11)(a), & (c)-(e), F.A.C.]

MACT.A.2. A Startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control equipment, and monitoring equipment is required for this emission unit. A current startup, shutdown, and malfunction plan must be maintained and be available to the Department upon request for inspection and copying.
[40 CFR 63.6(e)(3)]

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

EU No.	Brief Description
008	Phosphoric Acid Plant (East)
017	Phosphoric Acid Plant (West)
039	Phosphoric Acid Plant No. 3

{Permitting Note(s): This section of the permit includes the new requirements from 40 CFR 63 Subpart AA - National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants. The Part 40 CFR 63 Subpart AA take precedence over NSPS standards, but will not take precedence over BACT determinations. However, these emissions units are subject to all applicable NSPS standards if these emissions units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these emissions units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP.}

<u>40 CFR 63, Subpart AA</u>

The following are Specific Conditions from NESHAP 40 CFR 63 Subpart AA that apply to the emissions units listed above:

MACT.AA.1. The emissions units listed above shall comply with **Appendix 40 CFR 63 Subpart AA** attached to this permit with the exception as noted. Allowable ranges for operating parameters for the scrubbing system shall be determined using the methodology in either paragraph 1 or 2 of this Condition:
(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 based on the most recent performance test result.
(2) Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in §63.6~~2~~06(c)(4) or (d)(4).
and the approved **DEP Order Approving Alternate Monitoring Plan dated April 21, 2006. The Order expires on April 20, 2016.**;
[40 CFR 63.605(d)(1) and (2)]

The range approval process as described in federal regulation at 40 CFR 63.605(d)(1) & (d)(2) or 40 CFR 63.605(d)(1) and (2) specifically,

> "*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*."

is replaced with:

> "Upon establishment of a new operating range the permittee shall operate under the new range. If the compliance authority has reason to believe the compliance test was not done properly then the compliance authority shall require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C."

[Rules 62-213.440(1)(b)1.a. and 62-297.310(7)(b), F.A.C.]

MACT.AA.2. To establish operating parameters for these emissions units, the owner or operator must comply and demonstrate with the following:

1. Specifically notify the Department the testing will be for establishing allowable ranges for these emissions units according to Subparts A, AA, and the approved **DEP Order No. 06-H-AP, Approving Alternate Monitoring Plan dated April 21, 2006. The Order expires on April 20, 2016.**;
2. All tests must be precisely conducted according to the MACT standards and all applicable test methods;

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3. All tests must clearly demonstrate compliance with all MACT standards and applicable test methods and requirements;
4. All tests shall be submitted to the Department in accordance with Subparts A and AA.

*{Permitting Note: The **DEP Order No. 06-H-AP** authorized the use of fan amps in lieu of the maximum dP value from a scrubber.}*

[40 CFR 63, Subpart A; 40 CFR 63, Subpart AA; Rules 62-204.800(11)(a), (b)18., & (c)-(e), and 62-213.440, F.A.C. and **DEP Order No. 06-H-AP dated April 21, 2006**]

MACT AA.3. (a) A monitoring system to continuously measure and permanently record the total pressure drop across the process scrubbing system in 15 minute block averages shall be installed, calibrated, maintained and operated. The monitoring system shall have an accuracy of +/- 5 percent over its operating range.
(b) A monitoring system to determine and permanently record the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15 minute block averages shall be installed, calibrated, maintained and operated. The monitoring system shall have an accuracy of +/- 5 percent over its operating range.
[40 CFR 63.605(c)(1) and (2)]

MACT AA.4. Based on its use of a wet scrubbing emission control system, Permittee shall maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to MACT. AA.3.
[40 CFR 63.604].

MACT AA.5. A monitoring system to determine and permanently record the mass flow of phosphorous bearing feed material to the process shall be installed, calibrated, maintained and operated. The monitoring system shall have an accuracy of +/- 5 percent over its operating range.
[40 CFR 63.605(a)]

MACT AA.6. Maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed.
[40 CFR 63.605(b)]

MACT.AA.7. Permittee shall comply with the following reporting requirements:
a. Performance Test Report. The results of annual performance tests shall be submitted to the Department within 45 days of the completion of the performance test.

b. Excess Emissions Report. An excess emission report shall be submitted for any exceedance of an operating parameter limit. The report shall contain the information specified in 40 CFR 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semi-annually to the Department and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, permittee shall report quarterly until a request to reduce reporting frequency is submitted and approved pursuant to 40 CFR 63.10.

c. Summary Report. If the total duration of control system exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, a summary report containing the information specified in 63.10 shall be made rather than the full excess emission report. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.

d. If the total duration of the control system operating parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, permittee shall submit a summary report and the excess emissions report.

[40 CFR 63.9 and 63.10; 40 CFR 63.607(c)(1); Rules 62-297.310(8)(b) and 62-210.700(6), F.A.C.]

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

EU No.	Brief Description
009	DAP Plant #1
045	DAP Plant No. 2 - East Train
046	DAP Plant No. 2 - West Train
047	DAP Plant No. 2 – West Product Cooler
056	DAP Plant No. 2 - East Product Cooler
011	MAP Prill Plant
055	MAP Plant Cooler
078	GMAP Plant

{Permitting Notes:

1. *This section of the permit includes the new requirements from 40 CFR 63 Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants. The Part 40 CFR 63 Subpart BB take precedence over NSPS standards, but will not take precedence over BACT determinations. However, these emissions units are subject to all applicable NSPS standards if these emissions units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these emissions units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP.*
2. *The Specific Conditions related to wet scrubbing system do not apply to EU Nos. 047 and 055 as these two emissions units only have baghouses.}*

<u>40 CFR 63, Subpart BB</u>

The following are new Specific Conditions from NESHAP 40 CFR 63 Subpart BB that apply to the emissions units listed above:

MACT.BB.1. The 6 emissions units listed above shall comply with **Appendix 40 CFR 63 Subpart BB** attached to this permit with the exception as noted. Allowable ranges for operating parameters for the scrubbing system shall be determined using the methodology in either paragraph 1 or 2 of this Condition:
(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 based on the most recent performance test result.
(2) 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).
And the approved **DEP Order Approving Alternate Monitoring Plan dated April 21, 2006. The Order expires on April 20, 2016.**;
[40 CFR 63.625(f)(1) and (2)]
The range approval process as described in federal regulation at 40 CFR 63.605(d)(1) & (d)(2) or 40 CFR 63.605(d)(1) and (2) specifically,

> "*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*."

is replaced with:

> "Upon establishment of a new operating range the permittee shall operate under the new range. If the compliance authority has reason to believe the compliance test was not done properly then the compliance authority shall require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C."

[Rules 62-213.440(1)(b)1.a. and 62-297.310(7)(b), F.A.C.]

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MACT.BB.2. To establish operating parameters for these emissions units, the owner or operator must comply and demonstrate with the following:

1. Specifically notify the Department the testing will be for establishing allowable ranges for these emissions units according to Subparts A, BB, and the attached **DEP Order No. 06-H-AP, Approving Alternate Monitoring Plan dated April 21, 2006. The Order expires on April 20, 2016.**;
2. All tests must be precisely conducted according to the MACT standards and all applicable test methods;
3. All tests must clearly demonstrate compliance with all MACT standards and applicable test methods and requirements;
4. All tests shall be submitted to the Department in accordance with Subparts A and BB.

*{Permitting Note: The **DEP Order No. 06-H-AP** authorized the use of fan amps in lieu of the maximum dP value from a scrubber.}*

[40 CFR 63, Subpart A; 40 CFR 63, Subpart BB; Rules 62-204.800(11)(a), (b)19., & (c)-(e) and 62-213.440, F.A.C. and **DEP Order No. 06-H-AP dated April 21, 2006**]

MACT BB.3. (a) A monitoring system to continuously measure and permanently record the total pressure drop across the process scrubbing system in 15 minute block averages shall be installed, calibrated, maintained and operated. The monitoring system shall have an accuracy of +/- 5 percent over its operating range.
(b) A monitoring system to determine and permanently record the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15 minute block averages shall be installed, calibrated, maintained and operated. The monitoring system shall have an accuracy of +/- 5 percent over its operating range.
[40 CFR 63.625(c)(1) and (2)]

MACT BB.4. Based on its use of a wet scrubbing emission control system, permittee shall maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to MACT. BB.3.
[40 CFR 63.624].

MACT BB.5. A monitoring system to determine and permanently record the mass flow of phosphorous bearing feed material to the process shall be installed, calibrated, maintained and operated. The monitoring system shall have an accuracy of +/- 5 percent over its operating range.
[40 CFR 63.625(a)]

MACT BB.6. Maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed.
[40 CFR 63.625(b)]

MACT.BB.7. Permittee shall comply with the following reporting requirements:
a. Performance Test Report. The results of annual performance tests shall be submitted to the Department within 45 days of the completion of the performance test.
b. Excess Emissions Report. An excess emission report shall be submitted for any exceedance of an operating parameter limit. The report shall contain the information specified in 40 CFR 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semi-annually to the Department and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, permittee shall report quarterly until a request to reduce reporting frequency is submitted and approved pursuant to 40 CFR 63.10.

c. Summary Report. If the total duration of control system exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, a summary report containing the information specified

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in 63.10 shall be made rather than the full excess emission report. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.
d. If the total duration of the control system operating parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, permittee shall submit a summary report and the excess emissions report.
[40 CFR 63.9 and 63.10; 40 CFR 63.627(c)(1); Rules 62-297.310(8)(b) and 62-210.700(6), F.A.C.]

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Subsection CAM. CAM Common Conditions

The specific condition in this section applies to the following emissions units:

EU No.	Brief Description	Pollutant (s) Subject to CAM
056	DAP Plant No. 2 - East Product Cooler	PM
078	GMAP Plant	PM

Compliance Assurance Monitoring (CAM) Requirements

CAM.1. The two emissions units listed above are subject to the CAM requirements contained in the attached **Appendices CAM and CAM Plan**. 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.
[Rule 62-204.800(12), F.A.C.; 40 CFR 64; and, Rule 62-213.440(1)(b)1.a., F.A.C.]

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SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix CAM, Compliance Assurance Monitoring Plan.
Appendix CAM Plan (MACT Option 1& 2 + AMP).
Appendix Flow Diagrams for CAM.
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 I, List of Insignificant Emissions Units and/or Activities.
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.
Appendix MOU, Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants.
Appendix AMP, NESHAP Alternate Monitoring Methods vide Administrative Order No. 06-H-AP.
Appendix PM RACT, PM RACT Exemption.
Appendix Testing, Simultaneous Testing of F and PM – Interoffice Memorandum.
Appendix ASP, Alternate Standards or Procedures Order No. ASP-95-H.

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REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

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, Summary of Compliance Requirements.
Table CAM Applicability.
Statement of Basis.

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