Mosaic Fertilizer, LLC
South Pierce Plant

Facility ID No. 1050055
Polk County

Title V Air Operation Permit Renewal

Permit No. 1050055-023-AV
(Renewal of Title V Air Operation Permit No. 1050055-14-AV)

Permitting Authority:

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

13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

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

Compliance Authority:

State of Florida
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FINAL PERMIT

PERMITTEE:
Mosaic Fertilizer, LLC
103830 Circa Crossing Drive
Lithia, Florida 33547

Permit No. 1050055-023-AV
South Pierce Plant
Facility ID No. 1050055
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The Mosaic Fertilizer - South Pierce Plant is located in Polk County at 7450 Highway 630 in Mulberry, Florida. UTM Coordinates are: Zone 17, 407.2 East and 3073.3 North. Latitude is: 27° 46' 51" North; and, Longitude is: 81° 56' 29" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: November 1, 2011
Renewal Application Due Date: March 21, 2016
Expiration Date: November 1, 2016 *

_____

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

**** IMPORTANT Permitting Notes**: The following two emissions units (E.U. Nos. 005 & 026) have early expiration dates and special reactivation and renewal requirements:*

1) *Sulfuric Acid Plant No. 11 (E.U. No. 005) has a permit expiration date of November 13, 2013. This emissions unit was shut down more than six months prior to the expiration date of the previous Title V operation permit (1050055-014-AV) and therefore, based on rule 62-210.300 (2)(a)3.b, F.A.C., can only be renewed for a period of up to five years after the date of shutdown. See Specific Condition Nos. B.24. and B.25. regarding reactivation and renewal.*

2) *Dry Phosphate Rock Handling Hopper Bin (E.U. No. 026) has a permit expiration date of May 26, 2016. This emissions unit was shut down more than five years prior to the expiration date of the previous Title V operation permit (1050055-014-AV) and therefore, based on rule 62-210.300 (2)(a)3.c, F.A.C., can only be renewed for a period of up to ten years after the date of shutdown. See Specific Condition Nos. C.16. and C.17. regarding reactivation and renewal*

CZT/ds/pp

Subsection A. Facility Description.

This facility is classified as a phosphate fertilizer production facility. This facility consists of two sulfuric acid plants, an auxiliary boiler, a molten sulfur storage and handling system, a phosphate rock storage bin, a phosphogypsum stack, and two emergency diesel engines.

This facility previously included two phosphoric acid plants, one dry ball mill grinding system, a granular triple superphosphate (GTSP) production plant, and the GTSP storage building. These systems were put into long term reserve shutdown on May 31, 2006 and were declared permanently shutdown in the permit renewal application dated November 29, 2010.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
001	Auxiliary Boiler (171 MMBTU)
004	Sulfuric Acid Plant #10
005	Sulfuric Acid Plant #11
008	Phosphoric Acid Plant - A Train (Permanently Shutdown)
009	Phosphoric Acid Plant - B Train (Permanently Shutdown)
022	No. 2 Ball Mill Grinding System (Permanently Shutdown)
023	GTSP Production Plant (Permanently Shutdown)
024	GTSP East Storage Building - North Scrubber (Permanently Shutdown)
025	GTSP East Storage Building - South Scrubber (Permanently Shutdown)
026	Dry Phosphate Rock Handling Hopper Bin
030	Molten Sulfur Storage and Handling System (Previously EU Nos. 030, 031, 032, 033, 035, 036, 037, 038, 039, 040, 041, 042, 043 & 050)
048	Phosphogypsum Stack
053	Auxiliary Boiler (100 MMBTU) *(to be constructed)*
054	Emergency Diesel Engines (Existing stationary RICE)
Unregulated Emissions Units and Activities	
049	Fugitive PM/PM10 Sources Fugitive SO2 Sources Fugitive NOx Sources Fugitive CO Sources Fugitive VOC Sources Fugitive Fluoride (F) Sources

Subsection C. Applicable Regulations.

Based on the renewal application received November 29, 2010, this facility is a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines, it is subject to regulation under 40 CFR 63, Subpart ZZZZ, - National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines. The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
40 CFR 60, Subpart A, NSPS General Provisions	001, 004, 005, 053
40 CFR 60, Subpart Db	001
40 CFR 60, Subpart Dc	053
40 CFR 60, Subpart H	004, 005
40 CFR 61, Subpart A, NESHAP General Provisions	048
40 CFR 61, Subpart R	048
40 CFR 63, Subpart A, NESHAP General Provisions	054
40 CFR 63, Subpart ZZZZ	054
Rule 62-296.402, F.A.C.	004, 005
Rule 62-296.406, FAC	001
Rule 62-296.411(1), F.A.C.	030
Best Available Control Technology (BACT) Determination (Appendix BACT, 1050055-023-AV)	001
Best Available Control Technology (BACT) Determination (Attachment: BACT Determination, 1050055-022-AC)	053
Best Available Control Technology (BACT) Determination (Appendix BACT, PSD-FL-235/1050055-010-AC)	004, 005

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. Paved roadways; application of water to unpaved roads.
b. Landscaping or planting of vegetation.
c. Use of enclosures and windbreaks, where practical.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit application received November 29, 2010.]

Annual Reports and Fees

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

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

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

FW9. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

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

[40 CFR 68]

Notes to Permittee: Based on a modeling study approved by the Department, it was determined that emissions from this facility will not have a significant impact on the Hillsborough County Air Quality Maintenance Area and it is therefore exempt from the PM RACT requirements in accordance with Rule 62-296.700(2)(b), F.A.C. The following emission units have permitted particulate emission limits and are subject to modeling in order to demonstrate to the department that this facility will not have a significant impact on the Air Quality Maintenance Area.

E.U. I.D. No.	***Description***	***PM Limit (lb/hour)***	***PM Limit (tons/year)***
001	*Auxiliary Boiler*	*2.4*	*10.7*
026	*Dry Phosphate Rock Handling Hopper Bin*	*22.5*	
030	*Molten Sulfur Storage - East Tank*	*0.50*[2]	*1.40*[2]
	Molten Sulfur Storage - West Tank	*0.50*[2]	*1.40*[2]
	Molten Sulfur Storage - Truck Pit	*0.92*[2]	*4.06*[2]
Totals		*26.8*	

[2]*Emission estimate for emission inventory and PSD purposes.*

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

EU No.	Brief Description
-001	Auxiliary Boiler (171 MMBTU)

This emissions unit consists of an auxiliary boiler which is used to supply auxiliary steam to the South Pierce facility. The boiler has a maximum heat input rate of 171 MMBtu/hr and is fired on natural gas or No. 2 fuel oil.

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The auxiliary boiler heat input rate is limited as follows:

a. The maximum heat input rate is limited to a maximum of 171 MMBtu per hour. When the boiler is fired with fuel oil, this is equivalent to a maximum usage rate of 1,070,000 gallons in any consecutive 12 month period. When the boiler is fired with natural gas, this is equivalent to 150.0 million cubic feet in any consecutive 12 month period.

b. The annual capacity factor (12-month rolling average basis) for the boiler shall not exceed 10 percent.

{Permitting Note: Requested by permittee to limit annual operations to 10 percent of maximum to avoid particulate matter and nitrogen oxides emission standards under 40 CFR 60 Subpart Db.}

[Rule 62-4.160(2) and 62-210.200, F.A.C., Definitions - (PTE), Construction Permit 1050055-011-AC]

A.2. Methods of Operation (Fuels) – The auxiliary boiler is permitted to burn the following fuels:

a. Natural gas.

b. No. 2 fuel oil with a maximum sulfur content of 0.05%, by weight.

[Rules 62-4.160(2) and 62-213.440(1), F.A.C., Construction permit 1050055-011-AC and Best Available Control Technology (BACT) Determination 1050055-023-AV dated July 18, 2011]

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

A.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.
[Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

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

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

A.5. Visible Emissions. Visible emissions from the boiler stack shall not exceed 20% opacity, except for one six-minute period per hour during which the opacity shall not exceed 27%.
[Rules 62-296.406(1) and 62-204.800(8)(b), F.A.C.; 40 CFR 60.43b(f)]

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.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

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

Monitoring of Operations

A.8. Monitoring of Auxiliary Boiler.

a. Visible Emissions Monitoring - Except for Saturdays and Sundays, the permittee shall measure the visible emissions from the boiler stack at least once every four hours during daylight shifts when No. 2 fuel oil is combusted in the auxiliary boiler. Each VE observation shall performed by a certified VE observer and be 6 minutes in duration. If the average opacity for a six-minute set of readings exceed 10 percent, the observer must collect two additional six-minute sets of visible emission readings for a total of three data sets.

b. Maintenance Activities Records - The permittee shall maintain the auxiliary boiler according to the procedures and schedules recommended by the boiler manufacturer for a unit with a 10 percent annual operating factor. The permittee shall keep records verifying that the necessary maintenance activities have been performed.

[Rule 62-204.800(8)(b); 40 CFR 60.13(i)(2), letter from Douglas Neeley, U.S. EPA dated September 23, 1998 , in lieu of continuous monitoring requirements in 40 CFR 60.48b(a)., , Construction Permit 1050055-011-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.}

A.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources (The test method shall be DEP Method 9 and the minimum test duration shall be sixty minutes)

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.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. Additionally, visible emissions testing should be conducted during a period when the boiler is cycling up to a normal high firing rate, or is continuously operating at a high firing rate. The permittee shall submit a statement of the operating mode. Failure to submit a statement of the operating mode or operating at less than capacity, may invalidate the test or result in an operating permit limitation.
[Rules 62-297.310 and 62-4.070(3), F.A.C.]

A.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), the auxiliary boiler stack shall be tested to demonstrate compliance with the visible emissions standards. If the boiler does not fire No. 2 fuel oil more than 400 hours per federal fiscal year, then the annual visible emissions test is not required. The permittee is required to perform a visible emissions test once every five years prior to permit renewal. However, the Compliance Authority shall be notified that fuel oil has not been fired for more than 400 hrs for the current federal fiscal year prior to the end of the federal fiscal year.
[Rules 62-297.310(7) and 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

A.12. General Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

A.13. Statement of Fuel Heat Input Rate. The permittee shall submit a statement of the fuel heat input rate and fuel in use as a part of the compliance test report. Failure to submit the heat input rate, fuel oil sulfur content, or operating at conditions which do not reflect the normal operating conditions, may invalidate the test and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C.]

A.14. Fuel Oil Analysis and Documentation. To document compliance with Specific Condition A.2 regarding the type of fuel oil (No. 2 fuel oil) and the fuel oil sulfur limit (0.05% by weight), the permittee shall provide either;
a. vendor certified documentation that the fuel oil delivered was No. 2 oil, or
b. a fuel oil analysis indicating the sulfur content, by weight.
[Rules 62-213.440(b)2.b. and 62-4.070(3), F.A.C.]

A.15. Recordkeeping. The permittee shall maintain the following records for the auxiliary boiler:

a. Daily Records
   (1) Facility Name, Emission Unit No. (001) and Date;
   (2) The time of visible emission observations and opacity (VE);
   (3) For each type of fuel used record:
      (a) The type of fuel
      (b) The hours of operation of the boiler,
      (c) The hourly steam load and amount of fuel combusted in the boiler.

b. Monthly Records
   (1) Facility Name, Emission Unit No. (001), Month and Year;
   (2) For each type of fuel used record:
      (a) The type of fuel
      (b) Hours of operation for the most recent 12 consecutive month period.

[Rules 62-4.070(3) and 62-204.800(8)(b), F.A.C.; 40 CFR 60.43b(f), 40 CFR 60.49b(d) and 40 CFR 60.49b(q)]

A.16. Annual Capacity Factor. The permittee shall calculate and record the annual capacity factor individually for distillate fuel oil (i.e. No. 2) and natural gas for each calendar quarter. The permittee shall submit to the Department, for each quarter the boiler is operated other than for maintenance purposes, the annual capacity factor over the previous 12 months. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

{Permitting Note: If the annual capacity factor ever exceeds 10 percent, the permittee would no longer qualify to use an opacity monitoring alternative, and would be required to put on a schedule for installing and certifying a continuous opacity monitor.}

[Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60.49b(d) and 40 CFR 60.49b(q)]

A.17. Excess Emissions Report. The permittee shall submit an excess emissions report (EER) to the Department 30 days after the end of each calendar quarter in which there are opacity excess emissions during No. 2 fuel oil combustion. If there are no opacity excess emissions during the calendar quarter, EERs may be submitted on a semiannual basis. If the boiler has not been operated on oil during the prior 6-month period, for other than maintenance purposes, EERs may be submitted with the annual operating report (AOR).

{Permitting Note: For reporting purposes, excess emissions are defined as any six minute period during which the average opacity exceeds 20 percent, and EERs must indicate the total time of the visible emission observations during a calendar quarter and identify the duration of any excess emissions.}

[Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60.13(i)(2), letter from Douglas Neeley, U.S. EPA dated September 23, 1998 , in lieu of continuous monitoring requirements in 40 CFR 60.48b(a).]

A.18. Excess Emissions Quarterly Report. In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

Other Requirements

A.19. Federal Rule Requirements. This emissions unit is subject to the applicable requirements contained in:
a. 40 CFR 60 Subpart A - General Provisions
b. 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
[Rules 62-213.440, F.A.C. and 62-204.800(8), F.A.C. and 40 CFR 60, Subparts A and Db]

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

EU No.	Brief Description
-004	Sulfuric Acid Plant #10
-005	Sulfuric Acid Plant #11

This section includes the facility's two sulfuric acid plants. Each sulfuric acid plant has a design production rate of 3,000 tons per day of sulfuric acid (100% H_2SO_4 basis). These plants utilize the double absorption process and sulfuric acid mist emissions are controlled by high efficiency mist eliminators.

{IMPORTANT Permitting Note: *Sulfuric Acid Plant No. 11 (E.U. No. 005) has a permit expiration date of November 13, 2013. This emissions unit was shut down more than six months prior to the expiration date of the previous Title V operation permit (1050055-014-AV) and therefore, based on rule 62-210.300 (2)(a)3.b, F.A.C., can only be renewed for a period of up to five years after the date of shutdown. See Specific Condition Nos. B.24. and B.25. regarding reactivation and renewal.}*

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity –Sulfuric Acid Production. The maximum allowable production rates are as follows:

E.U. No.	Plant Name	Maximum Production Rate
004	Sulfuric Acid Plant #10	3,000 tons/day of 100% H_2SO_4
005	Sulfuric Acid Plant #11	3,000 tons/day of 100% H_2SO_4

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., Construction Permit 1050055-010-AC/PSD-FL-235]

B.2. Permitted Capacity –Molten Sulfur Throughput. The molten sulfur throughput rate shall not exceed the following maximum limits:

a. 2,300 tons per day (calculated as a 5 day rolling average),

b. 725,000 tons per year

{Permitting Note: The annual sulfur capacity (above) is based on a sulfuric acid production capacity of 6,000 TPD of 100% sulfuric acid which is the combined capacity of Sulfuric Acid Plant Nos. 10 and 11. This limit is also specified in the Molten Sulfur Storage and Handling System (EU No. 030).}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit 1050055-013-AC]

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

B.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.
[Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

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

Unless otherwise specified, the averaging times for Specific Conditions B.5.-B.8. are based on the specified averaging time of the applicable test method.

B.5. Visible Emissions. Visible emissions shall not exceed 10% opacity.
[Rule 62-204.800(8)(b), F.A.C., 40 CFR 60.83(a)(2), 1050055-010-AC/PSD-FL-235 and BACT Determination of September 15, 1997]

B.6. Sulfur Dioxide (SO_2) Emissions Standard. Sulfur dioxide emissions shall not exceed any of the following limits for each emissions unit:
a. 4 pounds per ton of 100% acid produced;
b. 500 pounds per hour;
c. 2,190 tons per year.
[Rule 62-204.800(8)(b), F.A.C., 40 CFR 60.82(a), 1050055-010-AC/PSD-FL-235 and BACT Determination of September 15, 1997]

B.7. Acid Emissions Standard. Acid mist emissions shall not exceed any of the following limits for each emissions unit:
a. 0.15 pounds per ton of 100% acid produced;
b. 18.8 pounds per hour;
c. 82.1 tons per year.
[Rule 62-296.800(8)(b), F.A.C., 40 CFR 60.83(a)(1), 1050055-010-AC/PSD-FL-235 and BACT Determination of September 15, 1997]

B.8. Nitrogen oxides (NOx) Emissions Standard. Nitrogen oxides emissions shall not exceed any of the following limits for each emissions unit:
a. 0.12 pounds per ton of 100% acid produced;
b. 15.0 pounds per hour;
c. 65.7 tons per year.
[1050055-010-AC/PSD-FL-235 and BACT Determination of September 15, 1997]

Excess Emissions

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

B.9. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

B.10. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

B.11. Best Operational Practices. 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.

Best operational practices for **Sulfuric Acid Plant #10 only** shall include but not limited to the following:

a. The permittee shall inspect the burner floor for pooled sulfur once per day.
b. On controlled shutdowns, if there is pooled sulfur in the burner, the permittee shall continue to purge with the blower at 1800 RPM. Once the sulfur is consumed, the permittee shall continue to purge for an additional two minutes.
c. The permittee shall change out and maintain sulfur guns semiannually. The permittee shall test the spray pattern with water before installing replacement guns.

[Rules 62-210.700(1), F.A.C. and 62-4.070(3), F.A.C.]

Continuous Monitoring Requirements

B.12. Sulfur Dioxide (SO_2) CEMS. The continuous emission monitoring system for the measurement of sulfur dioxide shall be calibrated, maintained and operated as specified in 40 CFR 60.84. The span value of the continuous monitor shall be set at 1000 PPM.

The permittee shall establish a conversion factor for the purpose of converting sulfur dioxide monitoring data into the units of the applicable standard (lb/ton). The conversion factor shall be determined, as a minimum, three times daily in accordance with 40 CFR 60.84(b) or equivalent method. A record of all conversion factors and values from which they were calculated shall be maintained. The permittee may also use the alternative method, including electronic data systems, of determining sulfur dioxide emission rates using the continuous emission monitoring approach and calculation procedures referenced in 40 CFR 60.84(d).

[Rules 62-296.402 and 62-204.800(8)(b), F.A.C., and 40 CFR 60.84]

Test Methods and Procedures

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

B.13. Test Methods. Required tests to demonstrate compliance with the Nitrogen Oxide (NOx), Sulfuric Acid Mist (Acid Mist) and Visible Emissions (VE) Standards, shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources *{This test shall be conducted for a minimum of sixty (60) minutes in duration and simultaneous with the Method 8 test. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.}*

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.

[Rules 62-296.402(3), 62-297.310(4)(a)2. and 62-297.401, F.A.C.]

B.14. 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.15. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), each emissions unit (Sulfuric Acid Plant #10 and Sulfuric Acid Plant #11) shall be tested to demonstrate compliance with the emissions standards for Nitrogen Oxide (NOx), Sulfuric Acid Mist (Acid Mist), Visible emissions (VE).
[Rule 62-297.310(7), F.A.C.]

Recordkeeping and Reporting Requirements

B.16. Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for reporting requirements.

B.17. Daily Sulfuric Acid Production Records. To document compliance with the maximum allowable production rates of Specific Condition No. B.1, the Permittee shall maintain daily records of H_2SO_4 production for each emissions unit. Documentation as to how daily production rates were calculated shall be included as part of the records.
[Rule 62-4.070(3), F.A.C.].

B.18. Daily SO_2 Emissions Records. To document ongoing compliance with the sulfur dioxide emissions limits limits in Specific Condition No. B.6., the permittee shall maintain the following records for each day of the month:
a. daily acid production (in tons as 100% H_2SO_4);
b. daily hours operated;
c. daily average SO_2 emission rate (in lbs/ton of 100% H_2SO_4 produced);
[Rule 62-4.070(3), F.A.C]

B.19. Sulfuric Acid Plants Record Requirements (NSPS). In accordance with 40 CFR 60.7(b), the permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the sulfuric acid plants; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Records on monitoring system performance evaluations, calibrations and maintenance shall be maintained in accordance with 40 CFR 60.7(d).
[Rule 62-204.800(8)(b), F.A.C. and 40 CFR 60.7].

B.20. SO_2 Excess Emissions Report (NSPS). The permittee shall submit a written report of excess sulfur dioxide emissions quarterly 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.
[Rule 62-204.800(8)(b), F.A.C., and 40 CFR 60.7 and 60.84(e)].

B.21. Excess Emissions Quarterly Report. In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

Other Requirements

B.22. **Not federally enforceable.** Best Operational Practices. The permittee shall follow the attached Memorandum of Understanding Regarding Best Operational Start-Up Practices for Sulfuric Acid Plants. [Signed and executed on November 1, 1989.]
[Rule 62-4.070(3), F.A.C.]

B.23. Federal Rule Requirements. The sulfuric acid plants are subject to the applicable requirements contained in:
c. 40 CFR 60 Subpart A - General Provisions
d. 40 CFR 60 Subpart H – Standards of Performance for Sulfuric Acid Plants.
[Rules 62-213.440, F.A.C. and 62-204.800(8), F.A.C. and 40 CFR 60, Subparts A and H]

B.24. E.U. No. 005 Reactivation Requirements. E.U. No. 005 was shutdown on November 13, 2008 and has a permit expiration date of November 13, 2013. Reactivation of this emissions unit requires the following notification and compliance testing.

a. Notification of Startup of Operation (Reactivation) - The permittee shall notify the Department in writing of the intent to startup Sulfuric Acid Plant #11 (E.U. No. 005) a minimum of 60 days prior to the intended startup date. The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.

b. Compliance testing Requirements - Within 90 days of reactivation, Sulfuric Acid Plant #11 (E.U. No. 005) shall be tested to demonstrate compliance with the emissions standards for Nitrogen Oxide (NOx), Sulfuric Acid Mist (Acid Mist), Visible emissions (VE).

{Permitting Note: Even if this unit is reactivated, the permit expiration date for this unit remains November 13, 2013. A Title V permit revision will be required to change the permit expiration date for this emissions unit}
[Rules 62-210.300(2)(a)4 and 62-297.310(7), F.A.C.]

B.25. E.U. No. 005 Renewal Requirements. E.U. No. 005 was shutdown on November 13, 2008 and therefore has a permit expiration date of November 13, 2013. This emissions unit must be renewed prior to its expiration date and can only be renewed with a maximum expiration date of November 13, 2018. The basis for the emissions unit's current expiration, future expiration date and renewal process are included below.

a. Basis for Current Expiration Date of November 13, 2013 - Based on rule 62-210.300(2)(a)3.b., F.A.C., the operation permit for an emissions unit which has been shut down for six months or more prior to the expiration date of the current operation permit, shall be renewed for a period not to exceed five years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided:

(I) The owner or operator of the emissions unit demonstrates to the Department that the emissions unit may need to be reactivated and used, or that it is the owner's or operator's intent to apply to

the Department for a permit to construct a new emissions unit at the facility before the end of the extension period; and

(II) The owner or operator of the emissions unit agrees to and is legally prohibited from providing the allowable emission permitted by the renewed permit as an emissions offset to any other person under Rule 62-212.500, F.A.C.; and

(III) The emissions unit was operating in compliance with all applicable rules as of the time the source was shut down.

b. Basis for Future Expiration Date of November 13, 2018 - Based on rule 62-210.300(3)(c)4, F.A.C., the operation permit for an emissions unit which has been shut down for five years or more prior to the expiration date of the current operation permit shall be renewed for a maximum period not to exceed ten years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided the conditions given in sub-subparagraph 62-210.300(2)(a)3.b., F.A.C. (shown above in Specific Condition No. B.25.a.), are met and the owner or operator demonstrates to the Department that failure to renew the permit would constitute a hardship, which may include economic hardship.

c. Emissions Unit Renewal Process – The permittee shall submit a Title V permit revision application to revise the permit expiration date for the emissions unit. The revision process shall follow the process outlined in Appendix TV - Title V General Conditions, Condition TV17.

[Rules 62-210.300(2)(a)3.b. and 62-210.300(3)(c)4, F.A.C.]

Subsection C. Emissions Unit 026

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

EU No.	Brief Description
-026	Dry Phosphate Rock Handling Hopper Bin

The phosphate rock hopper bin at the GTSP plant operates automatically to maintain sufficient rock supply. Material is pneumatically conveyed to the storage bin at a maximum rate of 70 tons per hour. Particulate matter emissions are controlled by a dust collector, with a design flow rate of 2400 ACFM. Material collected by the dust collector is returned to the storage bin.

{IMPORTANT Permitting Note: *Dry Phosphate Rock Handling Hopper Bin (E.U. No. 026) has a permit expiration date of May 26, 2016. This emissions unit was shut down more than five years prior to the expiration date of the previous Title V operation permit (1050055-014-AV) and therefore, based on rule 62-210.300 (2)(a)3.c, F.A.C., can only be renewed for a period of up to ten years after the date of shutdown. See Specific Condition Nos. C.16. and C.17. regarding reactivation and renewal.}*

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The transfer rate shall not exceed 70.0 tons per hour.
[Rules 62-4.160(2) and 62-210.200(PTE)]

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

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

Emission Limitations and Standards

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

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

C.4. Visible Emissions. Visible emissions from the Dry Phosphate Rock Handling Hopper Bin baghouse exhaust, and conveying equipment, shall not be equal to or greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

C.5. PM Emissions. The maximum allowable emission rate of particulate matter from the Dry Phosphate Rock Handling Hopper Bin baghouse exhaust shall not exceed 22.5 pounds per hour.
[Requested by applicant on October 28, 1993 in order for the emission unit to be considered a minor source (allowable particulate emission rate less than 100 tons per year), Rule 62-4.070(3), F.A.C.]

Excess Emissions

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

C.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration

of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

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

Monitoring of Operations

C.8. 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.}

C.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1,2 & 4	Traverse Points, Velocity and Flow Rate, and Moisture Content
5B	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM_{10}.)
9	Visual Determination of the Opacity of Emissions from Stationary Sources *{This test shall be conducted for a minimum of thirty (30) minutes in duration.}*

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

C.11. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the visible emissions (VE) standards.
[Rule 62-297.310(7), F.A.C.]

C.12. Compliance Tests Prior To Renewal. Particulate Matter (PM) compliance tests shall be performed for this emissions unit once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the particulate matter emission standard.
[Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

Recordkeeping and Reporting Requirements

C.13. Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for reporting requirements.

C.14. To document compliance with the rate limitation of Specific Condition No. C.1., the permittee shall maintain daily records of the amount of material processed and total hours of process operations. [Rule 62-4.070(3), F.A.C.]

C.15. Excess Emissions Quarterly Report. In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

C.16. E.U. No. 026 Reactivation Requirements. E.U. No. 026 was shutdown on May 31, 2006 and now has a permit expiration date of May 31, 2016. Reactivation of this emissions unit requires the following notification and compliance testing.

a. Notification of Startup of Operation (Reactivation) - The permittee shall notify the Department in writing of the intent to startup Dry Phosphate Rock Handling Hopper Bin (E.U. No. 026) a minimum of 60 days prior to the intended startup date. The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.

b. Compliance testing Requirements - Within 90 days of reactivation, Dry Phosphate Rock Handling Hopper Bin (E.U. No. 026) shall be tested to demonstrate compliance with the emissions standards for Particulate Matter (PM) and Visible emissions (VE).

{Permitting Note: Even if this unit is reactivated, the permit expiration date for this unit remains May 31 2016. A Title V permit revision will be required to change the permit expiration date for this emissions unit.}

[Rules 62-210.300(2)(a)4 and 62-297.310(7), F.A.C.]

C.17. E.U. No. 026 Renewal Requirements. E.U. No. 026 was shutdown on May 31, 2006 and will therefore has a permit expiration date of May 31, 2016. The basis for the emissions unit's current expiration date and renewal process are included below.

a. Basis for Current Expiration Date of May 31, 2016 - Based on rule 62-210.300(3)(c)4, F.A.C., the operation permit for an emissions unit which has been shut down for five years or more prior to the expiration date of the current operation permit shall be renewed for a maximum period not to exceed ten years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided the conditions given in sub-subparagraph 62-210.300(2)(a)3.b., F.A.C., are met and the owner or operator demonstrates to the Department that failure to renew the permit would constitute a hardship, which may include economic hardship.

b. Emissions Unit Renewal Process – The permittee shall submit a Title V permit revision application to revise the permit expiration date for the emissions unit. The revision process shall follow the process outlined in Appendix TV - Title V General Conditions, Condition TV17.

{Permitting Note: If this emissions unit remains shutdown for more than 10 years, it will not be considered for renewal.}

[Rules 62-210.300(2)(a)3.b. and 62-210.300(3)(c)4, F.A.C.]

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

EU No.	Brief Description
030	Molten Sulfur Storage and Handling System

The molten sulfur storage and handling system includes equipment used to unload, transfer and store molten sulfur. The system consists of the following equipment:

a. Two 1,050 short ton storage tanks (East Tank and West Tank).
b. A molten sulfur unloading pit which is divided into two sections. One section is a 670 short ton truck unloading pit and the other section is a sulfur transfer pit that is no longer used.
c. A 250 ton molten sulfur transfer pit located adjacent to the molten sulfur unloading pit.
d. Associated transfer pumps and piping.

Molten sulfur is unloaded into the molten sulfur unloading pits via truck. The material is then pumped into storage tanks or into the transfer pit. Molten sulfur in the storage tank can be transferred into the transfer pit. Molten sulfur in the transfer pit can be pumped to the sulfuric acid plants or back into the storage tanks.

The molten sulfur storage and handling system includes the following vents:

a. Molten Sulfur Storage (East) Tank 1 - Vent 1, 2, 3 and 4 (previously E.U. Nos. 030, 031, 032 and 033)
b. Molten Sulfur Storage (West) Tank 2 - Vent 1, 2, 3, 4 and 5 (previously E.U. Nos. 035, 036, 037, 038 and 039)
c. Molten Sulfur Truck Unloading Pit - East Vent with Fan, East Vent without Fan, West Vent with Fan , West Vent without Fan (previously E.U. Nos. 040, 041, 042 and 043)
d. Molten Sulfur Transfer Pit is equipped with two vents (previously E.U. Nos. 050)

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity –Molten Sulfur Throughput. The molten sulfur throughput rate shall exceed the following maximum limits:

a. 2,300 tons per day (calculated as a 5 day rolling average),

b. 725,000 tons per year

{Permitting Note: The annual sulfur capacity (above) is based on a sulfuric acid production capacity of 6,000 TPD of 100% sulfuric acid which is the combined capacity of Sulfuric Acid Plant Nos. 10 and 11.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit 1050055-010-AC/PSD-FL-235]

D.2. Hours of Operation. These emissions units may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.; Construction Permits 1050055-010-AC/PSD-FL-235 and 1050055-013-AC]

D.3. Methods of Operation. The permittee shall employ procedures to minimize emissions from the Molten Storage and Handling System pursuant to the applicable requirements of Rule 62-296.411, F.A.C. This shall include, but is not limited to the following:

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

b. All areas surrounding points where molten sulfur pipes are routinely disconnected and areas where molten sulfur is transferred to trucks shall be paved and curbed within 20 feet of the point of

disconnection or transfer to contain any spilled molten sulfur, or shall be provided with noncorrosible drip pans or other secondary containment, positioned to collect spills, that are adequate to contain amounts of sulfur that may escape during routine disconnect, reconnection or operation of the piping system.

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

d. All vent surfaces shall be cleaned monthly to remove captured particulates.

[Rule 62-296.411(1), F.A.C., Air Construction Permits 1050055-010-AC/PSD-FL-235 and 1050055-013-AC]

D.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.
[Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

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

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

D.5. Visible Emissions. Visible emissions from any emission point in the molten sulfur handling and storage system shall not exceed 20% opacity (six minute average).
[Rule 62-296.411(1)(g), F.A.C.]

Excess Emissions

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

D.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

D.7. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

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 methods:

Method	Description of Method and Comments
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.

[Rules 62-297.401 and 62-296.411, F.A.C.; Construction Permit Nos. AC53-201152, 1050055-013-AC]

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. Compliance Tests Prior To Renewal. All the emission points in the molten sulfur handling and storage system shall be tested for visible emissions on, or during the 365-270 day period prior to the expiration date of this permit.
[Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

D.11. Additional Compliance Test Requirements.

a. Compliance shall be conducted by a certified observer for a minimum of 30 minutes in duration.

b. The visible emissions tests shall be conducted during conditions that would be expected to produce the highest opacity.

c. The tests for the vents of the storage tanks and sulfur pits shall be conducted while the tanks are being filled (filling does not have to be continuous during the entire test).

d. Visible emissions tests shall be conducted at each vent of the two sulfur receiving pits and at each vent of the two sulfur storage tanks.

e. The unloading/transfer rates and a description of the unloading operations during the test shall be included with the test results.

f. Testing of emissions to show compliance shall be conducted under normal operating conditions while the pit is transferring sulfur.

g. The actual throughput rate (in tons/hour) for the test period and an explanation how the rate was determined shall be included in the test report.

Failure to submit the actual transfer rate for the test period and a copy of the daily log for the test day in the test report may invalidate the test and fail to provide reasonable assurance of compliance.

[Construction Permits AC53-201152, 1050055-013-AC; Rules 62-4.070(3), 62-297.310, 62-297.401, 62-296.411, F.A.C.]

Recordkeeping and Reporting Requirements

D.12. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

D.13. Recordkeeping – Molten Sulfur Throughput. To document compliance with Molten Sulfur Throughput Limits, the permittee shall keep the following records at a minimum:

a. Daily Records:
(1) Facility ID number,
(2) E.U. ID No. (030)
(3) Date,
(4) The total quantity of molten sulfur received (throughput) into the system for the day in tons.
(5) The molten sulfur throughput rate (5-day rolling average) for the system in tons per day. This is to be determined based on the most recent 5 days of molten sulfur throughput.
(6) The date the vent surfaces were cleaned.

b. Monthly Records:
(1) Facility ID number,
(2) E.U. ID Nos. (030)
(3) Month and Year
(4) The total quantity of molten sulfur received for the month (tons).
(5) The total quantity of molten sulfur received for the most recent consecutive 12-month period (tons).

All daily records shall be completed by the end of the following week. All monthly records shall be completed by the end of the week following the end of the preceding month.

[Rules 62-213.440(1) and 62-4.070(3), F.A.C., Air Construction Permit 1050055-013-AC]

D.14. Recordkeeping – Molten Sulfur Handling. The permittee shall keep the following records:

a. Records of spills outside of the containment areas and of collection and disposal of spilled sulfur.

b. Records of collection and disposal of spilled molten sulfur inside of the containment area including records of weekly and monthly cleaning.

The permittee shall implement the necessary recordkeeping, maintenance, and operational procedures to minimize emissions from the molten sulfur system pursuant to the applicable requirements of Rule 62-296.411(1), F.A.C., "Molten Sulfur Storage and Handling Facilities".

[Rule 62-296.411(1), F.A.C., Air Construction Permit 1050055-013-AC]

D.15. Excess Emissions Quarterly Report. In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

Subsection E. Emissions Unit 048

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

EU No.	Brief Description
048	Phosphogypsum Stack

The following conditions apply to the emissions unit listed above:

E.1. Federal Rule Requirements. The permittee shall comply with 40 CFR 61 Subparts A and R (National Emission Standards for Hazardous Air Pollutants - General Provisions; and National Emission Standards for Radon Emissions from Phosphogypsum Stacks).
[40 CFR 61, Subpart A and R]

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

EU No.	Brief Description
-053	Auxiliary Boiler (100 MMBTU)

This emissions unit consists of an auxiliary boiler which is used to supply auxiliary steam to the South Pierce facility. The boiler has a maximum heat input rate of 100 MMBtu/hr and is fired on natural gas or fuel oil.

{Permitting Note: Per Rule 62-213.405 - Concurrent Processing of Permit Applications, this emissions unit has been included in this operation permit prior to completion of construction and compliance demonstration. This permit contains a compliance plan (Appendix CP) for this emissions unit (E.U. 053) which will be constructed under Construction Permit 1050055-022-AC.}

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity:

a. Hourly Fuel Usage Rates: The following hourly usage rates are for the purpose of emissions testing only, the permittee is not required to show compliance with these rate during normal operation:

(1) The maximum natural gas usage rate is 100,000 cuft/hr. (100 MMBTU/hour).

(2) The maximum fuel oil usage rate is 714 gals/hr. (100 MMBTU/hour).

b. Annual Heat Input Capacity – The boiler is limited to a maximum annual heat input of 87,600 MMBTU for any consecutive 12-month period. This annual heat input is determined based on the total heat input from the sum of fuel oil and natural gas operation.

{Permitting Notes: In the revised application dated 4/25/2011, the applicant requested a 10% annual capacity factor for a boiler with a maximum design heat input capacity of 100 MMBTU/ hour. This is equivalent to an annual capacity of 87,600 MMBTU.}

[Rules 62-4.160(2) and 62-210.200, F.A.C., Definitions - (PTE); Construction Permit 1050055-022-AC]

F.2. Authorized Fuel: The boiler is permitted to use natural gas, No.1 fuel oil or No. 2 fuel oil as firing fuels. Fuel oils shall have a maximum sulfur content of 0.05%, by weight.

[Rule 62-210.200, F.A.C., Definitions - (PTE); Construction Permit 1050055-022-AC; Best Available Control Technology (BACT) Determination 1050055-022-AC dated July 14, 2011]

F.3. Hours of Operation: The hours of operation are not limited (8760 hours per year).
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

F.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.
[Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

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

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

F.5. Visible Emissions Standard: Visible emissions from the boiler stack shall not exceed 20% opacity, except for one six-minute period per hour during which the opacity shall not exceed 27%.

{Permitting Note: 40 CFR 60, Subpart Dc, SO_2 Emissions Limit - Compliance with the BACT fuel oil sulfur limit of 0.05% will also satisfy the "sulfur dioxide emissions standard and fuel oil limit contained in 40 CFR 60.42c(d) and 40 CFR 60.42c(h) (Subpart Dc). }

[Rule 62-296.406(1) and 62-204.800(8)(b), F.A.C.; 40 CFR 60.43c(c) (Subpart Dc)]

Excess Emissions

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

F.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

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

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

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources (The minimum test duration shall be sixty minutes)

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.]

F.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. Additionally, visible emissions testing should be conducted during a period when the boiler is cycling up to a normal high firing rate, or is continuously operating at a high firing rate. The permittee shall submit a statement of the operating mode. Failure to submit a statement of the operating mode or operating at less than capacity, may invalidate the test or result in an operating permit limitation.
[Rules 62-297.310 and 62-4.070(3), F.A.C.]

F.10. Annual Compliance Tests Required. During each federal fiscal year (October 1st to September 30th), the auxiliary boiler stack shall be tested to demonstrate compliance with the visible emissions standards. If the boiler does not fire No. 2 fuel oil more than 400 hours per federal fiscal year, then the annual visible emissions test is not required. The permittee is required to perform a visible emissions test once every five years prior to permit renewal. However, the Compliance Authority shall be notified that fuel oil has not been fired for more than 400 hrs for the current federal fiscal year prior to the end of the federal fiscal year.
[Rules 62-297.310(7) and 62-4.070(3), F.A.C.; Construction Permit 1050055-022-AC]

Recordkeeping and Reporting Requirements

F.11. General Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

F.12. Statement of Fuel Heat Input Rate. The permittee shall submit a statement of the fuel heat input rate and fuel in use as a part of the compliance test report. Failure to submit the heat input rate, fuel oil sulfur content, or operating at conditions which do not reflect the normal operating conditions, may invalidate the test and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C.]

F.13. Fuel Oil Analysis and Documentation. Compliance with the fuel oil's 0.05%, by weight, sulfur content limitation shall be demonstrated through either:

a. The fuel supplier documentation of fuel oil sulfur content for each shipment of oil delivered for use in the boiler per 40 CFR 60.48c(f). The records shall include a "fuel supplier certification" (40 CFR 60.48c(f)(2)) consisting of the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c and the sulfur content or maximum sulfur content of the oil; or

b. Actual fuel oil analysis per 40 CFR 60.46c(d)(2). Fuel sampling and analysis shall be in accordance with 40 CFR 60 Appendix A, Method 19, Section 12.5.2.2 (Liquid Fossil Fuel).

The permittee shall submit semiannual reports of the fuel oil supplier sulfur content certification records for any reporting period during which the boiler is fired with fuel oil. The semiannual report shall include a certified statement signed by the facility's Responsible Official that the records of the fuel supplier certifications submitted represent all of the fuel combusted during the period. The semiannual reports shall be submitted to the Compliance Authority within 30 days of the end of the reporting period.

[Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60.48c(e)(11) (Subpart Dc); Construction Permit 1050055-022-AC]

F.14. Recordkeeping. The permittee shall maintain the following records for the auxiliary boiler:

a. Daily Records
   (1) Facility Name, Emission Unit No. (053) and Date;
   (2) The time of visible emission observations and opacity (VE);
   (3) For each type of fuel used record:
      (a) the type of fuel,
      (b) the hours of operation of the boiler, and
      (c) the amount of fuel combusted in the boiler.

b. Monthly Records
   (1) Facility Name, Emission Unit No. (053), Month and Year;
   (2) For each type of fuel used record:
      (a) the type of fuel, and
      (b) the hours of operation for the most recent 12 consecutive month period.
   (3) The annual heat input calculated on a 12-month rolling total basis with a new annual heat input calculated at the end of each calendar month.

[Rules 62-4.070(3) and 62-204.800(8)(b), F.A.C.; 40 CFR 60.43b(f), 40 CFR 60.49b(d) and 40 CFR 60.49b(q); Construction Permit 1050055-022-AC]

F.15. Excess Emissions Quarterly Report. In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

Other Requirements

F.16. Federal Rule Requirements. This emissions unit is subject to the applicable requirements contained in:
a. 40 CFR 60 Subpart A - General Provisions
b. 40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
[Rules 62-213.440, F.A.C. and 62-204.800(8), F.A.C. and 40 CFR 60, Subparts A and Dc]

Subsection G. Emissions Unit 054

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

EU No.	Brief Description
-054	Emergency Diesel Engines (Existing stationary RICE)

This emissions unit consists of the following Emergency Diesel Engines:

Description	Manufacturer	Model No.	Power (bhp)	Date of Construction
TG2	Kohler	10 ROZ	220	Prior to 6/12/2006
S/P Secondary Lime	Cummins	CD300	228	Prior to 6/12/2006

The following conditions apply to the emissions unit listed above:

G.1. Federal Rule Requirements. The emergency engines included in this emissions unit are subject to the applicable requirements contained in 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (See Appendix NESHAP, Subpart ZZZZ). The applicable requirements for each engine (based on category and HP rating) are shown in Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - Summary of Requirements. [Rule 62-4.070(3), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary
Appendix B, Best Operational Start-up Practices for Sulfuric Acid Plants
Appendix BACT, 1050055-023-AV
Appendix BACT, PSD-FL-235/1050055-010-AC
Appendix CP, Compliance Plan for EU No. 053 - Auxiliary Boiler
Appendix I, List of Insignificant Emissions Units and/or Activities
Appendix NESHAP - 40 CFR 61, Subpart A - General Provisions
Appendix NESHAP - 40 CFR 61, Subpart R - NESHAP for Radon Emissions from Phosphogypsum Stacks
Appendix NESHAP - 40 CFR 63, Subpart A - General Provisions
Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines
Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - Summary of Requirements
Appendix NSPS, Subpart A – General Provisions
Appendix NSPS, Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
Appendix NSPS, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
Appendix NSPS, Subpart H - Standards of Performance for Sulfuric Acid Plants
Appendix RR, Facility-wide Reporting Requirements
Appendix TR, Facility-wide Testing Requirements
Appendix TV, Title V General Conditions
Appendix U, List of Unregulated Emissions Units and/or Activities

REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

BACT Determination, 1050055-022-AC
Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)
Table H, Permit History.
Table 1, Summary of Air Pollutant Standards and Terms
Table 2, Compliance Requirements