Florida Department of Environmental Protection

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

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE

Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, FL 33547

Air Permit No. 1050046-043-AC
Permit Expires: 12/31/ 2017
Minor Air Construction Permit

Authorized Representative:
Mr. Keith Nadaskay, PE, Environmental Superintendent

Bartow Facility
No. 3 Fertilizer (DAP/MAP) Plant
In-Kind Reactor Replacement

PROJECT

This is the final air construction permit, which authorizes an in-kind replacement of the existing No. 3 Fertilizer Plant 1965 Dorr-Oliver reactor with a similar capacity reactor. The proposed work will be conducted at the existing Mosaic Fertilizer, LLC, Bartow Facility, which is a phosphatic fertilizer manufacturing facility categorized under Standard Industrial Classification No. 2874. The existing facility is located in Polk County at 3200 Highway 60 West, Bartow, Florida. The UTM coordinates are Zone 17, 409.77 km East, and 3087.26 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida

for

Pamala Vazquez
Program Administrator
Permitting & Waste Cleanup Program
Southwest District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Mr. Keith Nadaskay, P.E., Mosaic Fertilizer, LLC (keith.nadaskay@mosaicco.com)
Mr. Rama Iyer, P.E., Mosaic Fertilizer, LLC: rama.iyer@mosaicco.com
Mr. Scott Borderieux, FDEP Southwest District: scott.borderieux@dep.state.fl.us
Ms. Danielle D. Henry, FDEP Southwest District: danielle.d.henry@dep.state.fl.us

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Rhonda Hughes April 4, 2016
(Clerk) (Date)

FACILITY DESCRIPTION

The existing facility consists of the following emissions units.

Facility ID No. 010500246	
ID No.	**Emission Unit Description**
Regulated Emissions Units	
001	No. 3 Fertilizer (DAP/MAP) Plant
002	No. 4 Fertilizer Shipping Plant
004	No. 3 Fertilizer Shipping Plant
010	Wet Phosphoric Acid Plant (No. 4 & No. 5 combined)
012	No. 4 Sulfuric Acid Plant
021	No. 4 Fertilizer Plant
032	No. 6 Sulfuric Acid Plant
033	No. 5 Sulfuric Acid Plant
045	Molten Sulfur System - Stack 45 (Pit A), 200 ton molt sulf pit
046	Molten Sulfur Storage - Vent 44 from 6,000 ton tank
047	Molten Sulfur System (Vent from 3,000 ton surge tank)
050	Molten Sulfur System - Stack 47 (Pit B), 300 ton molt sulf pit
052	Phosphogypsum Stack
073	NG Fired 75 mmBtu/hr boiler at Greenbay
Unregulated Emissions Units and Activities	
051	Cleaver Brooks Package Watertube Boiler
053	Facility Wide Unregulated Emissions
061	Waste Heat Boiler Blowdown/Flash Tank Discharge
062	Tank Truck Loading/Unloading of Sulfuric Acid
063	Industrial Cooling Towers
064	Process and Product Storage Tanks
065	Auxiliary Power Generators and Diesel Fuel Tank
066	Molten Sulfur Fires and Spill Cleanup
067	VOC From Solvent Cleaning of Small Parts
068	Welding, Grinding, and Cutting Metal for Maintenance
069	Fugitive Dust/Exhaust Emissions From Maint. Vehicles
070	Misc. Painting and Relining Rubber-Lined Vessels
071	Vehicle Fleet Fuel Storage Tanks
072	Sulfuric Acid Plant Catalyst Removal and Classifying
074	New Stationary Emergency CI RICE
075	Existing Emergency CI RICE > 500 hp
076	Existing Emergency CI RICE < or equal to 500 hp
077	Existing Non-Emergency CI RICE 100 < hp < 500
078	Existing Non-Emergency Stationary CI RICE < 100 hp
079	Green Bay Phosphogypsum Stacks I & II

PROPOSED PROJECT

The applicant proposes an in-kind replacement of the existing No. 3 Fertilizer (MAP/DAP) Plant 1965 Dorr-Oliver reactor with a similar capacity reactor. No changes to operating parameters, throughput, production or emission limits are requested.

This project will modify the following emissions unit.

Facility ID No. 1050046	
ID No.	**Emission Unit Description**
001	No. 3 Fertilizer (DAP/MAP) Plant

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

PERMIT HISTORY/AFFECTED PERMITS

This permit references current Title V Air Operation Permit 1050046-038-AV and pending Title V Air Operation Permit 1050046-042-AV.

ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Southwest District of the Department of Environmental Protection (Department). The mailing address, phone number and e-mail address is:

   Florida Department of Environmental Protection
   Southwest District Office
   Air and Solid Waste Permitting Program
   13051 North Telecom Parkway
   Temple Terrace, Florida 33637-0926
   Telephone: 813-470-5700
   E-mail: SWD_Air_Permitting@dep.state.fl.us

   All documents related to applications for permits shall be submitted to the above e-mail address and/or address.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Florida Department of Environmental Protection (Department), Southwest District Office's Compliance Assurance Program. The mailing address, phone number and e-mail address is:

   Florida Department of Environmental Protection
   Southwest District Office
   Compliance Assurance Program
   13051 North Telecom Parkway
   Temple Terrace, Florida 33637-0926
   Telephone: 813-470-5700
   E-mail: SWD_Air@dep.state.fl.us

3. Appendices: The following Appendices are attached as a part of this permit:
   - Appendix A (Citation Formats and Glossary of Common Terms);
   - Appendix B (General Conditions);
   - Appendix C (Common Conditions); and
   - Appendix D (Common Testing Requirements).
   - Appendix E 40 CFR 63 Subpart A – NESHAP General Provisions
   - Appendix F 40 CFR 63 Subpart BB - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Phosphate Fertilizer Production Plants
   - Appendix G ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB dated 05/15/2015

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
[Rule 62-4.080, F.A.C.]

6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.
[Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Construction and Expiration. The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires.
[Rules 62-4.070(4), 62-4.080 & 62-210.300(1), F.A.C.]

8. Source Obligation:

   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.]

9. Actual Emissions Reporting: This permit is 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. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.

   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 calculations pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;
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 permit requires the annual reporting of actual PM and Fluoride emissions for the following unit: EU 001 – No. 3 Fertilizer (DAP/MAP) Plant.

[Application 1050046-043-AC; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

10. Application for Title V Air Operation Permit: This permit authorizes modification of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V air operation permit is required for continued operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation or commencing operation as modified. Commencing operation means setting into operation of any emissions unit for any purpose. To apply for a Title V air operation permit, the applicant shall submit the following:

a. the appropriate permit application form *(see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: http://www.dep.state.fl.us/air/)*;

b. a copy of the initial compliance test reports required by Specific Condition No. **A.24.**, if not previously submitted;

c. copies of the most recent month of records/logs specified in Specific Condition No. **A.28.**; and

The application shall be submitted to the Permitting Authority.

[Rules 62-4.030, 62-4.050 and Chapter 62-213, F.A.C.]

11. Annual Operating Report (AOR): The information required by the Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's (DEP) District Office. All Title V sources shall submit a completed DEP Form 62-210.900(5) unless the annual operating report is submitted using the DEP's electronic annual operating report software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C.
[Rule 62-210.370(3), F.A.C.]

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

A. EU 001, No. 3 Fertilizer (MAP/DAP) Plant

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
001	No. 3 Fertilizer (DAP/MAP) Plant - The No. 3 Fertilizer (DAP/MAP) Plant has a design capacity of 3,000 tons per day produces ammonium phosphate products: monoammonium phosphate (MAP) and diammonium phosphate (DAP), which may be enhanced with addition of commercially available zinc, copper, boron, manganese and/or sulfur micronutrients. The ammonia and phosphoric acid are combined in the reactor to give the ammoniated phosphate slurry which is then conveyed to the granulator where ammonia is further introduced via sparging at the bottom as the slurry is sprayed axially. In some instances, phosphoric acid is also introduced into the granulator. The granular MAP or DAP so formed then goes to the dryer to remove the moisture, is then screened to obtain the desired product size, then cooled in the rotary cooler and then sent to the product storage warehouses. The process consists of a reactor, granulator, dryer, cooler, mills, screens, conveyors and pollution control equipment comprising of primary and secondary scrubbers, along with other ancillary equipment such as the ammonia chiller, cyclones and seal tanks. The dryer is fired with natural gas, or fuel oil with a maximum sulfur content of 1.5 percent, at a design heat input rate of 40 mmBtu per hour. Process gas streams have the following dedicated control equipment: • Reactor has venturi scrubbers and a cyclonic scrubber. • Dryer is controlled by a venturi scrubber and a cyclonic scrubber. • Granulator is controlled by a venturi scrubber and a cyclonic scrubber. • Cooler has venturi scrubbers and a cyclonic scrubber. The dryer process has a dedicated packed bed tail gas scrubber while the reactor, granulator, and cooler processes share a packed bed tail gas scrubber. The two tailgas packed bed scrubbers exhaust to a common stack. The reactor emissions, along with those from elevators, screens, mills, hoppers, and such ancillary equipment areas go through the RV venturi cyclonic scrubber which uses product recovery solution as the scrubbing liquid. Emissions from the granulator go to the granulator venturi cyclonic scrubber which uses product recovery solution as the scrubbing liquid. Emissions from the dryer go to the dryer venturi cyclonic scrubber which uses product recovery solution as the scrubbing liquid. Emissions from the cooler go to the cooler venturi cyclonic scrubber which uses diammonium phosphate (DAP) pond water and effluent from the two tailgas packed bed scrubbers, i.e., the RGCV tailgas packed bed scrubber and dryer tailgas packed bed scrubber. The exhaust from the cooler venturi cyclonic scrubber, the granulator venturi cyclonic scrubber and the RV venturi cyclonic scrubber, all three streams, go to RGCV tailgas packed bed scrubber which uses DAP pond water and re-use water as the scrubbing liquid. Exhaust from the dryer venturi cyclonic scrubber goes to the dryer tailgas packed bed scrubber which uses DAP pond water and re-use water as scrubbing liquid. A coating oil ribbon blender has been installed in the No. 3 Fertilizer (DAP/MAP) Plant downstream of polishing screens and before the Cominco Plate Cooler to apply de-dusting coating oil to the product. The current practice of application of de-dusting coating oil into the rotary cooler is retained to allow for contingencies such as maintenance and breakdowns. Two 4,800 cubic foot storage silos and two 400 cubic foot day bins to store zinc and boron micronutrient compounds are considered insignificant emission units.

FEDERAL REGULATIONS

A.1. Federal Regulatory Requirements: This emission unit is subject to specific requirements of 40 CFR 63, Subpart BB, Appendix A to Subpart BB – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Phosphate Fertilizer Production Plants, Applicability to General Provisions to Subpart BB, and alternative MACT monitoring plan (ASP Request 15-U-AP – Alternate Monitoring Plan to that Required by 40 CFR 63 Subparts AA and BB dated 05/15/2015). The owner or operator is responsible for remaining in compliance with any updates made to Subpart A or BB. To establish operating

parameters for this emissions unit, the owner or operator must comply /and demonstrate with the following:

a. Must comply with all conditions of ASP Request 15-U-AP,

b. Must comply with all applicable requirements of Subparts A and BB,

c. Specifically notify the department the testing will be for establishing allowable ranges for this emissions unit according to Subparts A and BB,

d. All tests must be precisely conducted according to the MACT standards and all applicable test methods,

e. All tests must clearly demonstrate compliance with all MACT standards and applicable test methods and requirements,

f. All tests shall be submitted to the Department in accordance with Subparts A and BB,

g. Failure to meet any requirements of this condition, Subpart A or BB, or the alternate plan will negate use of any new ranges derived from the test.

[40 CFR 63- Subpart A, 40 CFR 63- Subpart BB, and ASP Request 15-U-AP]

EQUIPMENT

A.2. No. 3 Fertilizer Plant Reactor: The permittee is authorized to install an in-kind replacement reactor to replace the existing 1965 Dorr Oliver reactor. The replacement reactor shall substantially conform to the specifications provided in the Air Construction Permit Application 1050046-043-AC received on 02/17/2016 and have similar operating parameters. Ancillary piping, valves etc. required to perform the replacement are authorized, but shall be described in the permit application required in Administrative Requirement 10.
[Application No. 1050046-043-AC]

PERFORMANCE RESTRICTIONS

A.3. Permitted Capacity: The maximum permitted production rate is as follows:

a. The maximum permitted production rate for the No. 3 Fertilizer (DAP/MAP) plant shall not exceed 3,000 tons per day of DAP or MAP product including products with commercially available zinc, copper, boron, manganese, and/or sulfur micronutrients. All micronutrients used shall be only those sold commercially as soil nutrients and shall be received, unloaded, handled, and processed such that all emissions of micronutrients are captured by existing air pollution control devices.

b. The maximum process rate shall not exceed 61.25 tons per hour of 100 percent phosphoric acid (P_2O_5) input (daily average basis).

The maximum heat input rate to the dryer is limited to 40 MMBtu per hour (daily average basis).

[Rule 62-210.200(PTE), F.A.C.; Air Construction Permit No. PSD-FL-255 (1050046-008-AC & 1050046-012-AC)]

A.4. Authorized Fuel: The dryer shall be fired with natural gas or new No. 6 fuel oil or a better grade oil (see permitting note below). The fuel oil shall contain no more than 1.5% sulfur, by weight. The "New" fuel oil is defined as being refined from crude oil and has not been used, and may or may not contain additives. No. 6 fuel oil with a maximum content of 1.5% sulfur by weight may be fired up to a

maximum of 338,000 gallons per year. Firing rate of either fuel shall not exceed 40 MMBtu per hour. The permittee shall maintain records of the fuel oil supplier's sulfur content analysis.

{Permitting Note, Better Grade Fuel Oil: A better grade fuel oil is defined as a fuel with a higher ranking in the following list:

Better Grade (Top of List)
new, No. 2 fuel oil
new, No. 3 fuel oil
new, No. 4 fuel oil
new, No. 5 fuel oil
new, No. 6 fuel oil}

[Rule 62-213.410, F.A.C.; Air Construction Permit No. 1050046-008-AC.]

A.5. Restricted 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.; Air Construction Permit No. 1050046-008-AC]

EMISSIONS STANDARDS

A.6. Emissions Standards:

a. Visible Emissions: Visible emissions shall not exceed 15% opacity. The visible emissions test shall be conducted by a certified observer and be a minimum of thirty minutes in duration, unless otherwise specified. The test observation period shall include the period during which the highest opacity can reasonably be expected to occur.
[Rule 62-296.320(4)(a)(2) and (b), F.A.C. and Air Construction Permit No. 1050046-029-AC]

b. Fluoride (F) Emissions: Fluoride emissions from the No. 3 Fertilizer (DAP/MAP) Plant shall not exceed 0.041 pound of fluoride per ton of equivalent P_2O_5 feed or 2.5 pounds of fluoride per hour or 10.95 TPY, whichever is less.
[Rule 62-296.403(1), F.A.C. and Air Construction Permit No. 1050046-008-AC]

*{Permitting Note: The fluoride emission limit in Specific Condition **A.6.b.** of 0.041 lb/ton of equivalent P_2O_5 feed is more stringent than the applicable NESHAP, 40 CFR 63.622(a) limit of 0.06 lb/ton of equivalent P_2O_5 feed. The permittee shall comply with the applicable requirements of the NESHAP, 40 CFR 63, Subparts A and BB.}*

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

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

A.7. Fugitive Emissions: Fugitive particulate and fluoride emissions from the process, conveying and storage equipment shall be controlled by sealing and/or venting particulate matter and fumes from the equipment to the pollution devices.
[Rule 62-4.070(3), F.A.C.]

TESTING REQUIREMENTS

A.8. Initial Compliance Tests: The emissions unit shall be tested to demonstrate initial compliance with the emissions standards for VE, Fluoride and PM. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit.
[Rules 62-4.070(3) and 62-297.310(8)(b)1, F.A.C.]

A.9. Annual Compliance Tests: During each calendar year (January 1st to December 31st), the emissions unit shall be tested to demonstrate compliance with the emissions standards for VE, Fluoride and PM.
[Rule 62-297.310(8)(a)1, F.A.C.]

A.10. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.
[Rule 62-297.310(9), F.A.C.]

A.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
9	Visual Determination of the Opacity of Emissions from Stationary Sources
13A	Determination of total fluoride emissions from stationary sources—SPADNS zirconium lake method
13B	Determination of total fluoride emissions from stationary sources—Specific ion electrode method

The above methods are described in Appendix A of 40 CFR 60 and are 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 62-204.800, F.A.C.; and Appendix A of 40 CFR 60]

A.12. Determination of Total Fluoride Emissions: The permittee shall determine compliance with the total fluorides standard as required in 40 CFR 63.626(f), based on the equivalent P_2O_5 computed as indicated in 40 CFR 63.626(f)(3).
[40 CFR 63.626(f)]

A.13. Monitoring During Test: To comply with § 63.625(a)(1) or (2), the owner or operator shall use the monitoring systems in § 63.625(d) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 63.625(a)(1) or (2).
[40 CFR 63.626(d)(4)]

A.14. Additional Compliance Test Requirements: Compliance testing shall be conducted while firing oil in the product dryer, if oil of any type has been used in the product dryer for a sum total of more than 400 hours from the previous test. If a test is conducted while firing natural gas, and in the 12 month period following the test, fuel oil of any type is burned for a sum total of more 400 hours, then an additional

emissions test per Specific Condition **A.6.** shall be conducted, while burning oil in that source, within 30 days of having exceeded the 400 hour oil burning limit. A compliance test is required for operating the product dryer on the lowest grade oil than was used since the last compliance test. If testing is conducted while firing fuel oil in the dryer, compliance with the sulfur content requirement of Specific Condition **A.4.** shall be demonstrated during the test by submitting either a Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or a Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test. of the following with the test report.
[Rules 62-297.310(7)(b), and 62-4.070(3), F.A.C.]

MONITORING REQUIREMENTS

A.15. Feed Material Monitoring: The permittee shall install calibrate, maintain, and operate a flow monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The monitoring device shall have an accuracy of ± 5% over its operating range.
[40 CFR 63.625(a) & Air Construction Permit No. 1050046-008-AC]

A.16. Control Equipment Monitoring: The permittee shall install, calibrate, maintain, and operate the following monitoring systems:

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

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

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

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

A.17. Monitoring Log. In order to provide reasonable assurance that the fluoride emission limitation is being met, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum:

a. the water flow rate (gallons per minute),

b. the scrubber pressure drop (inches of water),

c. the date and time of the measurements, and

d. the name of the person responsible for performing the measurements.

A record log entry for each scrubber shall be made at least once for every 8 hour shift when the No. 3 Fertilizer (DAP/MAP) Plant operates.

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

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

A.18. Alternate Monitoring Plan. The pollution control equipment shall be operated in accordance with the Department approved Alternate Monitoring Plan (ASP 15-U-AP) for the scrubbers associated with this unit. Modification of the Alternate Monitoring Plan requires Department approval.
[Rule 62-4.070(3)]

NOTIFICATION REQUIREMENTS

A.19. Notification of Operation Commencement: The permittee shall notify the Compliance Authority in writing of the date of commencing operation of the EU No. 001 after completing the modifications authorized by this permit, no later than fifteen (15) days after that date. Commencing operation means setting into operation of any emissions unit for any purpose.
[Rules 62-4.070, and 62-210.200, F.A.C., (definition of Commence Operation)]

A.20. Notification Requirements: The permittee must comply with the notification requirements in 40 CFR 63.9 and the reporting and recordkeeping requirements in 40 CFR 63.10. The reporting requirements in 40 CFR 63.10 includes the initial and annual performance test reports, excess emissions reports, and the summary report.
[40 CFR 63.627]

A.21. Alternate Monitoring Methods. The permittee is subject to NESHAP alternate monitoring methods vide ASP Request 15-U-AP – Alternate Monitoring Plan to that required by 40 CFR 63 Subparts AA and BB dated 05/15/2015 (Appendix G).
[40 CFR 63.632(a), ASP Request 15-U-AP]

A.22. Determining Allowable Range of Scrubber Operation Parameters: Following the date on which the performance test required in § 63.626 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (f)(1) or (2) of this section:

a. The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is + 20 percent of the baseline average value determined as a requirement of § 63.625(d)(1). The Administrator retains the right to reduce the + 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but, in no instance shall the adjustment be reduced to less than + 10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. The baseline average values used for compliance shall be based on the values determined during the most recent performance test. The new baseline average value shall be effective on the date following the performance test.

b. The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges of baseline average values for the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in this subpart and established in the manner required in § 63.625(d)(1). As an alternative, the owner or operator can establish the allowable ranges of baseline average values using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods

required in this subpart and established in the manner required in § 63.625(d)(1). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges of baseline average values developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges of baseline average values. When a source using the methodology of this paragraph is retested, the owner operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters from previous tests. Any new allowable ranges of baseline average values resulting from the most recent performance test shall be effective on the date following the retest. Until changes to allowable ranges of baseline average values are approved by the Administrator, the allowable ranges for use in § 63.624 shall be based upon the range of baseline average values proposed for approval.

[40 CFR 63.625(d)]

A.23. Maintaining Allowable Range of Scrubber Operation Parameters: On or after the date on which the initial performance (compliance) test is completed, the permittee must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant the requirements of 40 CFR 63.625(d)(1), as indicated in Specific Condition **A.22.**
[40 CFR 63.625]

RECORDS AND REPORTS

A.24. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the:

a. Type of fuel being fired.

b Heat input rate (MMBtu per hour) and firing rate (MCF per hour and/or gallons per hour).

c. Material process input rate (Tons per hour) and production rate (Tons per hour).

d Scrubber liquid flow rate (gpm).

e. If the test was conducted while firing natural gas, then include a statement of the total hours of dryer operation while firing fuel oil, of any type, during the 12 consecutive month period prior to the test.

Failure to submit the above information, or operating at conditions which do not reflect normal operating conditions may invalidate the test and fail to provide reasonable assurance of compliance.

[Rules 62-4.070(3) & 62-297.310(10), F.A.C.]

*{Permitting Note: See NESHAP Conditions (Specific Conditions **A.12.**, **A.13.**, **A.16.**, **A.20.**, **A.21.**, **A.22.** & **A.23.**) as well as 40 CFR 63, Subpart A, for additional monitoring and recordkeeping requirements during performance tests.}*

A.25. Determination of Equivalent P_2O_5 Feed: The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass in tons per hour of phosphorus-bearing feed using a monitoring device for determining mass flow rate which meets the requirements of Specific Condition **A.15.** and then by processing according to 40 CFR 60.224(b)(3). [40 CFR 60.223(b)]

A.26. Sulfur Content of Fuel Record: In order to document continuing compliance with the maximum sulfur content requirement of Specific Condition **A.4.**, the permittee shall maintain a record of the sulfur content of the fuel oil received for use in the product dryer. These records may be based on vendor supplied information or analysis of samples taken by the permittee in accordance with Rule 62-297.440, F.A.C. [Rule 62-4.070(3), F.A.C.]

A.27. Operational Data: The permittee shall maintain the following records in written or electronic operational logs: date, time and duration of production with and without micronutrients and quantity of the micronutrients input to the plant. These records are to be provided upon request within 3 working days. [Rule 62-4.070(3), F.A.C.; Air Construction Permit No. 1050046-029-AC]

A.28. Daily and Monthly Log: A daily record log(s) shall be established and maintained to document, at a minimum, the following:

a. Facility Name, Facility ID No. (1050046), Emission Unit No. (E.U. 001) and Description;

b. Date;

c. Product Mode (DAP or MAP);

d. When operating, Daily, record the hours of operation of the DAP/MAP production;

e. When operating, Daily, record the quantity, in tons, of the DAP/MAP production;

f. When operating, Daily, record the production rate, in tons/hour (daily average), of the DAP/MAP production;

g. When operating, Daily, record material process rate, in tons/hour of 100% P_2O_5.

h. the quantity of natural gas and the quantity of oil and type of oil (No. 2, No. 3, No. 4, No. 5, or No. 6 fuel oil) utilized in the product dryer;

i. the sulfur content (percent, by weight) of each type of oil (No. 2, No. 3, No. 4, No. 5, or No. 6 fuel oil) utilized in the product dryer. The sulfur content may be based upon vendor supplied as-delivered oil sulfur content information, or an oil analysis;

j. the total hours of product dryer operation using oil of any type;

k. the total hours of product dryer operation using oil of any type for each consecutive rolling 12-month period (hours per 12 months);

l. gallons of No. 6 fuel oil used for each consecutive rolling 12-month;

m. heat input rate, mmBtu/hr (daily average)

[Rule 62-4.070(3), F.A.C.; Air Construction Permit No. 1050046-023-AC]

*{Permitting Note: See NESHAP Conditions (Specific Conditions **A.12., A.13., A.16., A.20., A.21., A.22. & A.23.**) as well as 40 CFR 63, Subpart A for additional recordkeeping requirements.}*