Florida Department of Environmental Protection

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2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE

South Pierce Facility
Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, Florida 33547

Authorized Representative:
Mr. Jeraud Dominic, General Manager

Permit No. 1050055-026-AC
Permit Expires: December 31, 2017
South Pierce Facility
Catalyst Change/Augmentation
Sulfuric Acid Plant No. 11
Polk County

PROJECT

This is the final air construction permit to change and augment the converter catalyst in Sulfuric Acid Plant No. 11 at the South Pierce Facility. The South Pierce Facility is an existing phosphate fertilizer manufacturer categorized under Standard Industrial Classification Number (No.) 2874. The existing facility is in Polk County at 7450 Highway 630 in Mulberry, Florida. UTM Coordinates are: Zone 17, 407.53 East and 3071.51 North. Latitude is: $27^0$45'53.50" North; and, Longitude is: $81^0$56'18.50" West.

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 CF of Section 4 of this 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.). 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 requirements for major new source review in Chapter 62-212, F.A.C.

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 Tallahassee, Florida

David Lyle Read, P.E.

David Lyle Read, P.E.
2017.01.25 13:06:41 -05'00'

For:

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

SA/dlr

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this final air permit package (including the Final Determination and Final Permit with Appendices) 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. Mr. Jeraud Dominic, Mosaic Fertilizer, LLC: jerry.dominic@mosaicco.com
Mr. Rama Iyer, P.E., Mosaic Fertilizer, LLC: rama.iyer@mosaicco.com
DEP SWD: SWD_Air_Permitting@dep.state.fl.us
Mr. Steve Morgan, DEP SWD: Steve.Morgan@dep.state.fl.us
EPA Region 4 NSR/PSD: NSRsubmittals@epa.gov
Ms. Lynn Scearce, DEP OPC: lynn.scearce@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.

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FACILITY DESCRIPTION

This existing Mosaic South Pierce facility consists of two sulfuric acid plants, a molten sulfur storage and handling system, a phosphogypsum stack, existing stationary reciprocating internal combustion engines (RICE) and stationary compression-ignition (CI) internal combustion engines (ICE). This facility consists of the regulated emissions units shown below. The emission unit affected by this permitting action is highlighted in yellow.

LIST OF EMISSION UNITS.

EU No.	Brief Description
004	Sulfuric Acid Plant #10
005	Sulfuric Acid Plant #11
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
054	Emergency Diesel Engines (Existing stationary RICE)
055	Stationary CI ICE

PROPOSED PROJECT

The purpose of the proposed project is authorization to change and augment the converter catalyst in Sulfuric Acid Plant No. 11 (SAP No. 11) in the forthcoming Quarter 1, 2017 turnaround that commences on January 31, 2017.

FACILITY REGULATORY CLASSIFICATION

- The existing facility is a major source of HAP.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The existing facility is a major stationary source in accordance with Rule 62-212.400 (PSD), F.A.C.
- This facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA)
- The facility operates units that are subject to the New Source Performance Standards (NSPS) at 40 Code of Federal Regulations, Part 60 (40 CFR 60), and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR 63.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The mailing address for the Office of Permitting and Compliance is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Compliance Authority, the Department's Southwest District (SWD). The Compliance Authority's mailing address is:

   Southwest District Office
   13051 N. Telecom Parkway
   Temple Terrace, FL 33637-0926
   Telephone: 813/470/5700, Fax: 813/470/5995

3. Appendices: The following Appendices are attached as a part of this permit and the permittee must comply with the requirements of the appendices:
   a. Appendix A. Citation Formats and Glossary of Common Terms;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions; and
   d. Appendix D. Common Testing Requirements

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: No emissions unit shall be constructed or 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. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions units. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

8. Objectionable Odors Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

   {Note: An objectionable odor is defined in Rule 62-210.200(Definitions), F.A.C., as 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.}

9. Unconfined Emissions of 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. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter. General reasonable precautions include the following: a. Paving and maintenance of roads, parking areas and yards; b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing; c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities; d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulates from becoming airborne; e. Landscaping or planting of vegetation; f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter; g. Confining abrasive blasting where possible; and h. Enclosure or covering of conveyor systems.
[Rule 62-296.320(4)(c), F.A.C.]

PREVIOUS APPLICABLE REQUIREMENTS

10. Effect on Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for this emissions unit. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions, rules and regulations. [Rule 62-4.070(1) & (3), Reasonable Assurance, F.A.C.]

A. SAP No. 11 (EU No. 005)

This subsection of the permit addresses the following emission unit:

EU No.	Brief Description
005	Sulfuric Acid Plant No. 11

Sulfur dioxide emissions from SAP No. 11 are controlled by a dual absorption tower, and acid mist is controlled by high volume and high efficiency mist eliminators. The plant produces a maximum of 3,000 tons per day of sulfuric acid (100% H_2SO_4 basis).

{Permitting note: This emission unit is regulated under NSPS - 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid, adopted and incorporated by reference in Rule 62-204.800(7)(b)10., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; and Rule 296.402, F.A.C., Sulfuric Acid Plant.}

Authorized Physical Changes

1. Converter Catalyst Replacement and Augmentation: SAP No. 11 is a double absorption plant with a 4-catalyst bed converter and attendant absorbers, waste heat boiler, cold and hot pass heat exchangers, economizers, and heat recovery systems. In accordance with the work schedule specified in **Condition 2** of this subsection, the permittee shall change/augment the converter catalyst in SAP No. 11. The permitted SAP capacity will remain unchanged and no emission limits are increased. Within 45 days of commencing operation following the turnaround (including catalyst installation and arrangement for the SAP), the permittee shall provide the following information to the Division and the Compliance Authority: the type of catalyst; the amount of catalyst and the catalyst arrangement within the converter. [Rules 62-4.070(1) and (3) and 62-4.080, F.A.C.]

2. Work Schedule: The permittee shall conduct the required work in accordance with the following schedule, which is based on the facility's planned turnaround.

Date Completed	SAP	SAP Project Work - Activity
March 31, 2017	SAP No. 11 (EU No. 005)	Catalyst change/augmentation

Notifications

3. Work Status: The permittee shall notify the Compliance Authority within 5 business days prior to starting the catalyst replacement/augmentation work on SAP No. 11. The permittee shall notify the Compliance Authority within 5 business days after the turnaround (including catalyst installation and arrangement for the SAP) is completed. [Rules 62-4.070(1) and (3) and 62-4.080, F.A.C.]