

Appendix A-2 Mosaic Fertilizer



FLORIDA DEPARTMENT OF Environmental Protection

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PERMITTEE

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

Authorized Representative:
Dexter Day, General Manager

Air Permit No. 1050055-037-AC
Permit Expires: June 30, 2023
Minor Air Construction Permit
South Pierce Facility
SO₂ Emission Cap, SAP Nos. 10 & 11

PROJECT

This is the final air construction permit, which establishes a pound per hour (lb/hr) sulfur dioxide (SO₂) emission cap on Sulfuric Acid Plant (SAP) Nos. 10 and 11 of 750 lb SO₂/hr on 24-hour block averaging period (6:00 a.m. to 6:00 a.m.) at the Mosaic South Pierce Facility. This voluntary daily average emission cap is an enforceable limit that will assist towards the goal of the Regional Haze Rule during the second implementation period, the goal of the EPA's June 12, 2015, Startup, Shutdown, and Malfunction (SSM) SIP Call, and the continued assurance of the National Ambient Air Quality Standards (NAAQS) attainment. The permit also authorizes turnaround work on SAP No. 10. The South Pierce Facility is an existing phosphate fertilizer production facility categorized under Standard Industrial Classification 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°45'53.50" North; and Longitude is: 81°56'18.50" West.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Permit Revisions); and Section 3 (Emissions Unit Specific Conditions).

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 review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

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.

A handwritten signature in black ink that reads "David Lyle Read".

Digitally signed by David Lyle Read
Date: 2022.09.22 13:15:47 -04'00'

David Lyle Read, P.E., Environmental Administrator
Permit Review Section
Division of Air Resource Management

FINAL PERMIT

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Permit Revision, Technical Evaluation and Preliminary Determination, Final Determination, and 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. Dexter Day, Mosaic: dexter.day@mosaicco.com
Ms. Dara Ford, Mosaic: dara.ford@mosaicco.com
Ms. Veronica Figueroa, P.E., Mosaic: veronica.figueroa@mosaicco.com
DEP Southwest District Office, Air Permitting: SWD_Air_Permitting@dep.state.fl.us
Ms. Amy Hilliard, DEP PRS: Amy.Hilliard@FloridaDEP.gov

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.



Digitally signed by Amy
Hilliard
Date: 2022.09.22 14:22:19
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SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

The South Pierce Facility consists of two sulfuric acid plants (SAPs), a molten sulfur storage and handling system, a phosphogypsum stack, an auxiliary boiler, existing stationary reciprocating internal combustion engines (RICE) and stationary compression ignition (CI) internal combustion engines (ICE).

The existing facility consists of the following emissions units (EU).

EU No.	Description
004	Sulfuric Acid Plant #10
005	Sulfuric Acid Plant #11
030	Molten Sulfur Storage and Handling System
048	Phosphogypsum Stack
054	Emergency Diesel Engines (Existing Stationary RICE)
055	Stationary CI ICE
056	Auxiliary Boiler

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.
- 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, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility operates units subject to the New Source Performance Standards (NSPS) of Title 40 Part 60 of the Code of Federal Regulations (40 CFR 60).
- The facility operates units subject to the National Emissions Standards of Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

PROPOSED PROJECT

This permit is for the establishment of a SO₂ emission limit applicable to Sulfuric Acid Plant (SAP) Nos. 10 and 11. This emission limit is a voluntary SO₂ cap of 750 lb SO₂/hr on a 24-hour block average (6:00 am to 6:00 am) on SAP Nos. 10 and 11 that will assist towards the goal of the Regional Haze Rule during the second implementation period, the goal of the EPA's June 12, 2015 Startup, Shutdown, and Malfunction (SSM) SIP Call, and the continued assurance of the National Ambient Air Quality Standards (NAAQS) attainment. The permit also authorizes turnaround work on SAP No. 10.

This project will affect the following emissions units.

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

SECTION 1. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Permit Review Section in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Permit Review Section mailing address 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 Department's Southwest District Office at: 13051 Telecom Pkwy North, Temple Terrace, Florida 33637.
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).
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 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(3) & (4), 62-4.080 & 62-210.300(1), F.A.C.]
[Rule 62-212.400(12), F.A.C.]
8. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular 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. 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 with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050 and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. SAP Nos. 10 and 11 (EU 004 and 005)

This section of the permit addresses the following emissions units.

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

Each sulfuric acid plant has a design production rate of 3,000 tons per day of sulfuric acid (100% H₂SO₄ basis). These plants utilize the double absorption process and sulfuric acid mist emissions are controlled by high efficiency mist eliminators.

{Permitting Note: These emissions units are regulated under 40 CFR 60, Subpart A, NSPS General Provisions, and Subpart H, Standards of Performance for Sulfuric Acid Plants, both of which are adopted and incorporated by reference in Rule 62-204.800(8), F.A.C.; Rule 62-296.402, F.A.C., Sulfuric Acid Plants; Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less Than 250 MMBtu/Hour Heat Input, New and Existing Units; and Rule 62-212.400(BACT), F.A.C., under Permit No. 1050055-010-AC (PSD-FL-235). These plants are considered "new" under Rule 62-296.402, F.A.C.}

PREVIOUS APPLICABLE REQUIREMENTS

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

PERMITTED CAPACITIES

2. Permitted Capacities: The permitted capacities of the SAPs shall remain the same. [Application No. 1050057-037-AC; and Rule 62-4.070(1) & (3), *Reasonable Assurance*, F.A.C.]

AUTHORIZATION

3. Authorization: The permittee is authorized to perform the work listed below:

- a. Replace the Drying Acid Tower at SAP 10;
- b. Evaluate conditions of the SAP 10 converter catalysts and change and or augment catalysts as needed; and
- c. General maintenance, repair, and replacement of ducts, pumps, vessels, and other ancillary equipment as determined by turnaround inspections may be performed as part of the SAP 10 Turnaround.

[Applicant Request; and, Rule 62-210.200, Definitions - Potential to Emit.]

SO₂ EMISSION LIMIT

4. SO₂ Emission Limit: Effective April 1, 2023, the following SO₂ emission cap applies to the SAP Nos. 10 and 11: 750 lb SO₂/hr on 24-hour block averaging period (6:00 a.m. to 6:00 a.m.). The 24-hour block average (6:00 a.m. to 6:00 a.m.) does not include hours when both SAPs are not operating.

[Rule 62-4.030, *General Prohibition*, F.A.C.; and, Rule 62-4.210, *Construction Permits*, F.A.C.]

COMPLIANCE REQUIREMENTS

5. Initial Compliance: These emission units shall use certified SO₂ CEMS data to demonstrate initial compliance with the SO₂ emission cap given in **Specific Condition 4** of this subsection. [Rules 62-4.070(1) & (3), *Reasonable Assurance*, F.A.C.; and Application No. 1050055-037-AC.]
6. Recordkeeping: The permittee shall keep records of the initial compliance demonstration. The records shall include the SO₂ CEMS data along with the sulfuric acid production rate (TPH, tons per hour) during the demonstration. Any reports shall be prepared in accordance with the applicable requirements specified in

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. SAP Nos. 10 and 11 (EU 004 and 005)

Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(10), F.A.C.; and Application No. 1050055-038-AC.]

7. **Ongoing Compliance:** The permittee shall use certified SO₂ CEMS data to demonstrate continuous compliance with the SO₂ emission cap given in **Specific Condition 4** of this subsection. [Rules 62-4.070(1) & (3), *Reasonable Assurance*, F.A.C.; and Application No. 1050055-037-AC.]