

STATEMENT OF BASIS

Title V Air Operation Permit Revision
Permit No. 1050046-091-AV

APPLICANT

The applicant for this project is Mosaic Fertilizer, LLC (Mosaic). The applicant's responsible official and mailing address are: Ms. Jody Hilderman, General Manager - Bartow and South Pierce, Mosaic Fertilizer, LLC, 13830 Circa Crossing Drive, Lithia, Florida 33457.

FACILITY DESCRIPTION

The applicant operates the existing Bartow Facility, which is in Polk County at 3200 Highway 60 West in Bartow, Florida.

This existing facility consists of one phosphoric acid plant (two trains), one monoammonium phosphate/diammonium phosphate (MAP/DAP) plant, one DAP fertilizer plant, three sulfuric acid plants, two fertilizer shipping plants, two auxiliary boilers, a limited-use boiler and a molten sulfur storage and handling system. Also, at the facility are miscellaneous insignificant emissions units and/or activities.

EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	No. 3 Fertilizer 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 Molten Sulfur 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 Molten Sulfur Pit
052	Bartow Facility Phosphogypsum Stacks
079	Green Bay Facility Phosphogypsum Stacks
080	Firetube Scotch Marine Boiler
081	144.5 MMBtu/Hour Package Boiler at Green Bay
085	63 MMBtu/Hour RO Boiler at Green Bay
<i>'Existing' Engines</i>	
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
<i>'New' Engines</i>	
074	New Stationary Emergency CI RICE

STATEMENT OF BASIS

EU No.	Brief Description
<i>Unregulated Emissions Units and Activities</i> (see Appendix U, List of Unregulated Emissions Units and/or Activities)	
053	Facility Wide Unregulated Emission Units and/or Activities

APPLICABLE REGULATIONS

Based on the Title V air operation permit revision application received on September 3, 2021, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (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:

Applicable Requirement	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, Standards of Performance for New Stationary Sources (NSPS) General Provisions	012, 032, 033, 085, 080, 074, 081
40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	081
40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	080 & 085
40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants	012, 032, 033
40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	074
40 CFR 61, Subpart A - NESHAP General Provisions	052, 079
40 CFR 61, Subpart R - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Radon Emissions from Phosphogypsum Stacks	052, 079
40 CFR 63, Subpart A, NESHAP (a.k.a. MACT) General Provisions	001, 010, 021, 052, 079, 075, 076, 077, 078, 080, 081, 085
40 CFR 63, Subpart AA, NESHAP (a.k.a. MACT) From Phosphoric Acid Manufacturing Plants	010
40 CFR 63, Subpart BB, NESHAP (a.k.a. MACT) from Phosphate Fertilizers Production Plants	001, 021, 052, 079
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)	075, 076, 077, 078
40 CFR 63, Subpart DDDDD, NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	080, 081, & 085
<i>State Rule Citations</i>	
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), Best Available Control Technology (BACT)	001, 010, 012, 032, 033, 021, 045, 046, 047 & 050
Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards	002, 004
Rule 296.402, F.A.C., Sulfuric Acid Plants	012, 032, 033
Rule 62-296.403, Phosphate Processing Fluorides Limits	001, 010, 021
Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 MMBtu/hour Heat Input, New and Existing Units	080, 081, & 085
Rule 62-210.300, F.A.C., Permits Required	053, 074, 075, 076, 077, 078

STATEMENT OF BASIS

PROJECT DESCRIPTION

The purpose of this project is to concurrently issue a revised Title V air operation permit and an air construction permit revision for the facility. The project revises Title V air operation permit No. 1050046-085-AV. The Title V air operation permit revision incorporates Permit Nos. 1050046- 086- AC & 1050046- 087- AC and includes minor updates. The air construction permit revises Permit No. 1050046-087-AC. The AC permit revision reflects actual construction.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

- Application for a Title V air operation permit revision received August 28, 2024.
- Draft/Proposed Title V air operation permit revision issued October 15, 2024.
- Public Notice of Intent to Issue Air Permits published on October 28, 2024.
- Proof of publication (affidavit) of Public Notice of Intent to Issue Air Permits received on October 31, 2024.
- Final Title V air operation permit revision issued December 13, 2024.

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 2874 - Phosphatic Fertilizers.

North American Industry Classification System (NAICS): 325312 - Phosphatic Fertilizer Manufacturing.

HAP: The facility is identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

GHG: The facility is identified as a major source of greenhouse gas (GHG) pollutants.

PROJECT REVIEW

Changes were made in this Title V air operation permit revision. The major changes made in this project are overviewed here.

{Note: Major changes made in the draft/proposed version of the permit documents are specifically shown as follows: deletions are noted in striketrough and additions are noted in double underline. The changes are not shown in the final permit documents. Specific conditions may be renumbered accordingly in the final permit.}

Permit

1. Section II. Facility-wide Conditions. Added the Facility Maintenance and Improvements Project Emissions Reporting & Recordkeeping requirements from Permit No. 1050046-086-AC.
2. Subsection III.M. New Stationary Emergency CI RICE (EU 074). Incorporated the New Stationary Emergency CI RICE from Permit No. 1050046-086-AC.
3. Subsection III.N. New Diesel Engines for Lime Treatment Process System (EU 088). Incorporated the New Diesel Engines for the Lime Treatment Process System from Permit No. 1050046-087-AC.
4. Subsection III.O. Lime Treatment Process System (EU 087). Incorporated the Lime Treatment Process System from Permit No. 1050046-087-AC.

STATEMENT OF BASIS

5. Subsection III.P. 99.9 MMBtu/Hour Natural Gas-Fired Boiler (EU 086). Incorporated the 99.9 MMBtu/Hour Natural Gas-Fired Boiler from Permit No. 1050046-086-AC.

Appendices

1. The APPENDIX NESHAP 63.602(d) - Standards and Compliance Gypsum Dewatering Stack and Cooling Pond Management Plan (attached to Title V Air Operation Permit No. 1050046-85-AV) was updated with the revised plan dated June 2024. The revised plan was submitted on June 6, 2024, and covers Mosaic's Florida facilities subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart AA.

CONCLUSION

This project revises Title V Air Operation Permit No. 1050046-077-AV, which was effective on May 4, 2021. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.