Title V Air Operation Permit Renewal
Permit No. 1050059-075-AV

APPLICANT

The applicant for this project is Mosaic Fertilizer, LLC. The applicant's responsible official and mailing address are: Ronald Yasurek, Plant Manager, Mosaic Fertilizer, LLC, New Wales Facility, 13830 Circa Crossing Drive, Lithia, FL 33547.

FACILITY DESCRIPTION

The applicant operates the Mosaic New Wales Facility, which is located at 3095 Highway 640, Mulberry, Polk County.

This existing facility consists of five double absorption sulfuric acid plants; three phosphoric acid plants; a phosphoric acid clarification and storage area; three diammonium phosphate (DAP) plants; a monoammonium phosphate (MAP) plant; a granular monoammonium phosphate (GMAP) plant; an animal feed ingredients (AFI) plant; a molten sulfur storage & handling system; a limestone storage silo/rock grinding operation; and a phosphogypsum stack.

Molten sulfur is the feed for the double absorption sulfuric acid plants. These emission units are regulated under NSPS - 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid, adopted and incorporated by reference in Rule 62-204.800(8)(b)11., 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 Plants. Sulfur dioxide from each sulfuric acid plant is controlled by a dual absorption tower, and acid mist is controlled by high volume (HV) and high efficiency (HE) mist eliminator. These units utilize continuous emission monitors (CEMs) for sulfur dioxide (SO_2) emissions.

Phosphate rock and sulfuric acid are the primary feed for the phosphoric acid plants. These emission units are regulated under National Emission Standards for Hazardous Air Pollutants (NESHAP) - 40 CFR 63, Subpart A – General Provisions; 40 CFR 63, Subpart AA - NESHAP From Phosphoric Acid Manufacturing Plants, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; Administrative Order No. 06-H-AP for alternative MACT monitoring plan; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-296.403, F.A.C., Phosphate Processing. Fluoride emissions from this source are controlled by cross flow packed scrubbers and cyclonic demister.

Phosphoric acid is the feed for the Fertilizer (DAP/MAP) Plant. It consists of a reactor, granulator, dryer, cooler, mills, screens and ancillary equipment. The dryer is fired with natural gas, or fuel oil. The facility maintains records of the fuel oil supplier's sulfur content analysis. This emission unit is regulated under New Source Performance Standard (NSPS) - 40 CFR 60, Subpart V, Standards of Performance of Phosphate Fertilizer Industry: Diammonium Phosphate Plants; and NESHAP – 40 CFR 63, Subpart A – General Provisions; 40 CFR 63, Subpart BB – NESHAP From Phosphate Fertilizers Production Plants, adopted and incorporated by reference in Rule 62-204.800, 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; Rule 62-296.403, F.A.C., Phosphate Processing. Emissions from this source are controlled by the scrubbers.

The molten sulfur storage and handling system consists of the following: a rail and truck unloading system, one 7,500 ton molten sulfur storage tank, one 15,000 ton molten sulfur storage tank, one 1,500 ton molten sulfur truck unloading pit (North), one 350 ton truck unloading pit (South), one 800 ton railcar unloading pit and all of the associated transfer pumps and piping. These emissions units are regulated under Rule 62-212.300, F.A.C.,

General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards.

This facility has emissions units that are subject to the Compliance Assurance Monitoring (CAM) requirements, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

The facility has existing emergency and non-emergency compression ignition reciprocating internal combustion engines (CI RICE) that are subject to 40 CFR 63, Subpart A – General Provisions and Subpart ZZZZ - NESHAP for Stationary RICE.

Also included in this permit are miscellaneous unregulated emissions units and/or activities and insignificant activities.

PROJECT DESCRIPTION

The purpose of the Title V air operation permit (1050059-075-AV) is to renew Title V air operation permit (1050059-069-AV) and incorporate terms and conditions of air construction permit 1050059-076-AC for the above referenced facility and to remove the reference/specific conditions associated with the Rule 62-296.411, F.A.C. – Sulfur Storage and Handling Facilities, as this rule has been repealed.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Initial Title V Air Operation Permit issued 03/26/1999
Title V Air Operation Permit Renewal issued 02/14/2008
Title V Air Operation Permit Administrative Correction issued 03/11/2005
Title V Air Operation Permit Revision issued 10/03/2011
Title V Air Operation Permit Renewal Application submitted on 7/3/2012 and received and complete 07/05/2012
Notice of Intent to Issue Air Permit issued 08/28/2012
Revised Notice of Intent to Issue Air Permit XX/XX/XXXX
Public Notice Published XX/XX/XXXX

PRIMARY REGULATORY REQUIREMENTS

Title III: 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 does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

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

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

SITING: No Unit was originally certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) applies to the applicable emission units at the facility, described as follows:

EU ID No.	Brief Description	Pollutants subject to CAM	Control Device subject to CAM
-056	DAP Plant No. 2 – East Product Cooler	PM	One (1) Venturi scrubber
-078	GMAP Plant	PM	Equipment venturi scrubber

PROJECT REVIEW

The Title V Air Operation Permit Renewal (1050059-075-AV) is to renew the Title V air operation Permit (1050059-069-AV) and incorporate terms and conditions of an air construction 1050059-076-AC, which modifies a fluoride emission limitation established in air construction permit AC53-40085and also to remove the reference/specific conditions associated with the Rule 62-296.411, F.A.C. – Sulfur Storage and Handling Facilities, as this rule has been repealed.

Construction Permit No. 1050059-076-AC is for revision of fluoride emission limit of EU 053 in air construction permit AC-40085 from less than 2.32 lbs/hr to not to exceed 25 lbs/day (1.04 lbs/hr). The 25 lbs/day (1.04 lbs/hr) limit has been in the facility's Title V permit for years as a "not federally enforceable" condition, which was established by an agreement between the permittee and FDEP, 1/23/96. Construction Permit No. 1050059-076-AC makes this limit federally enforceable.

Other major changes made to the Title V permit include:

1. The New Title V permit template is used.
2. EU Nos. 031-036, 038 and 074-076 are removed from the permit since these emissions units are associated with the Multifos operation, which has been permanently shut down.
3. Duplicate conditions and information in the previous permit are removed to make the permit more concise.

CONCLUSION

This project renews Title V air operation permit No. 1050059-069-AV, which was issued on October 03, 2011. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.