FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

FINAL PERMIT

PERMITTEE

Mosaic Fertilizer, LLC
New Wales Facility
13830 Circa Crossing Drive
Lithia, FL 33547

Air Permit No. 1050059-090-AC
Permit Expires: 12/31/2017
New Wales Facility
Minor Air Construction Permit
For Prilled Sulfur Project

Authorized Representative:
Mr. Larry Simpson, Plant Manager

This is the final air construction permit for the modification of the sulfur storage and handling facility to be able to receive prilled sulfur and melt it for use in the sulfuric acid plants. The proposed work will be conducted at the Mosaic Fertilizer, LLC New Wales Facility (Standard Industrial Classification No. 2874). The facility is located in Polk County at 3095 Highway 640 in Mulberry, Florida. The UTM coordinates are Zone 17, 396.6 km East, and 3078.9 km North. As noted in the Final Determination provided with this final permit, no changes or only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections:

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Due to 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.

This air pollution 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

_____ _____

Kelley M. Boatwright Effective Date
Permitting & Waste Cleanup Program Administrator

Southwest District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination, the Final Permit and the 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 persons listed below.

Larry Simpson, Mosaic Fertilizer, LLC (larry.simpson@mosaicco.com)

Rama Iyer, P.E., Mosaic Fertilizer, LLC (rama.iyer@mosaicco.com)

Ghani Baig, Mosaic Fertilizer, LLC (ghani.baig@mosaicco.com)

Danielle Henry, Environmental Manager, DEP-SWD, 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.

_____ _____

(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This facility is a phosphate fertilizer manufacturing complex. The fertilizer complex processes phosphate rock into several different fertilizer products and animal feed ingredients. This is accomplished by reacting phosphate rock with sulfuric acid to produce phosphoric acid and then converting the phosphoric acid to fertilizer and animal feed ingredient products. This facility consists of five double absorption sulfuric acid plants; three phosphoric acid plants; a phosphoric acid clarification and storage area; three di-ammonium phosphate (DAP) plants; a mono-ammonium phosphate (MAP) prill plant; a granular mono-ammonium 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. The existing facility consists of the following emissions units (EUs).

Facility ID No. 1050059

EU ID No.	Emissions Unit Description
Regulated Emissions Units	
002	No. 1 Sulfuric Acid Plant
003	No. 2 Sulfuric Acid Plant
004	No. 3 Sulfuric Acid Plant
042	No. 4 Sulfuric Acid Plant
044	No. 5 Sulfuric Acid Plant
008	Phosphoric Acid Plant (East)
017	Phosphoric Acid Plant (West)
039	Phosphoric Acid Plant No. 3
053	Phosphoric Acid Clarification and Storage Area
048	30% Clarification Area (Area 10)
009	DAP Plant No. 1
045	DAP Plant No. 2 - East Train
046	DAP Plant No. 2 - West Train
047	DAP Plant No. 2 - West Product Cooler
056	DAP Plant No. 2 - East Product Cooler
011	MAP Prill Plant
055	MAP Prill Plant Cooler
015	Animal Feed Ingredients (AFI) Shipping/Truck Loadout
023	AFI Storage Silos (3)--North Side
024	AFI Storage/Shipping/Rail Car Loading
025	AFI Limestone Storage Silos (2)
026	AFI Silica Storage Bin
027	AFI Granulation Plant
028	AFI Storage Silos (3)—South Side
052	AFI Limestone Feed Bin

030	Soda Ash Unloading System
060	7,500 Ton Rail Storage Molten Sulfur Storage Tank
062	15,000 Ton Molten Sulfur Storage Tank
063	1,500 Ton Truck Unloading Pit, Sulfur Pit (North)
067	1,500 Ton Truck Unloading Pit, Sulfur Pit Front Vent
068	1,500 Ton Truck Unloading Pit, Sulfur Pit Rear Vent
064	350 Ton Truck Unloading Pit, Sulfur Pit (South)
069	350 Ton Truck Unloading Pit, Sulfur Pit Vent
065	800 Ton Railcar Unloading Pit
066	200 Ton Molten Sulfur Transfer Pit
080	1 Molten Sulfur Loading Station
070	Limestone Storage Silo/Rock Grinding
071	Phosphogypsum Stack
078	GMAP Plant
087	Existing Emergency CI RICE $\leq$ 500 HP
Unregulated Emissions Units and Activities	
072	Facility-Wide Fugitive Emissions - SO_2, SO_3, SAM and NOx emissions from the 1, 2, 3, 4 and 5 Sulfuric Acid Plants (SAPs) - Fluoride emissions from the Phosphoric Acid Plants (PAPs) East and West and No. 3 PAP - Fluoride, NH_3, PM emissions from Diammonium Phosphate (DAP), Monoammonium Phosphate (MAP) and Granular Monoammonium Phosphate GMAP Plants. - Hydrogen Fluoride (HF) emissions from the Phosphogypsum Stack and Cooling Pond *Note: For this emission unit, Annual Operation Report (AOR) emissions estimates are required only for Hydrogen Fluoride emissions from the Phosphogypsum Stack and Cooling Pond.*
012	GMAP Plant Storage Building

Project Description and Affected/Proposed Emission Units

This application is to modify the current molten sulfur storage and handling Subsection J (Emission Units.060, 062, 063, 064, 065, 066, 067, 068, 069 and 080) which currently is permitted for a molten sulfur throughput of 2.11 million tons per year via truck and railcar. The proposed project is to add prilled sulfur to be brought in by truck and railcar to a sulfur melter system. The prilled sulfur throughput is 1.36 million tons per year and will comprise of a prilled sulfur storage silo, feed hopper, melter with external heat and dirty sulfur pit, filter and a scrubber to control the emissions. The prilled sulfur material handling system and sulfur melter will be added to Subsection J as new emission units EU No. 090 and 091, respectively. Ancillary equipment such as bucket conveyors, truck, railcar receiving pits, intermediate transfer conveyors, pumps, fans and the like are included in the project. The total throughput of 2.11 million tons per year of molten sulfur will remain unchanged and will include the proposed prilled sulfur throughput of 1.36 million tons per year. This project will create/modify the following emissions units (EUs).

EU ID No.	Emissions Unit Description
060	7,500 Ton Rail Storage Molten Sulfur Storage Tank
062	15,000 Ton Molten Sulfur Storage Tank
063	1,500 Ton Truck Unloading Pit, Sulfur Pit (North)
067	1,500 Ton Truck Unloading Pit, Sulfur Pit Front Vent
068	1,500 Ton Truck Unloading Pit, Sulfur Pit Rear Vent
064	350 Ton Truck Unloading Pit, Sulfur Pit (South)
069	350 Ton Truck Unloading Pit, Sulfur Pit Vent
065	800 Ton Railcar Unloading Pit
066	200 Ton Molten Sulfur Transfer Pit
080	1 Molten Sulfur Loading Station
090	Prilled Sulfur Transfer (Rail/Truck Unloading, Silo & Hopper)
091	Sulfur Melter Scrubber Stack

NOTE: *Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAPs).
- The facility has no 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

References with Title V Permit 1050059-088-AV.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (FINAL)

1. Permitting Authority - The permitting authority for this project is the Florida Department of Environmental Protection (Department), Southwest District Office's Air and Solid Waste Permitting Program. The mailing address and phone number 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

All documents related to applications for permits shall be submitted to the above address.

2. Compliance Authority - The compliance authority for this project is the Florida Department of Environmental Protection (Department), Southwest District Office's Compliance Assurance Program. The mailing address and phone number 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

All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the above address.

3. Appendices - The following Appendices are attached as part of this permit:

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 - Unless otherwise exempt by rule, the permittee shall not initiate any construction, reconstruction, or modification at the facility and shall not install/modify any pollution control device at the facility without obtaining prior authorization from the Department. Modification is defined as: Any physical change or changes in the method of operations or addition to a facility that would result in an increase in the actual emissions of any air pollutant subject to air regulations, including any not previously emitted, from any emission unit or facility.
[Rules 62-210.200 - Definition of "Modification" and 62-210.300(1)(a), F.A.C.]

7. 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.]

8. 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 as calculated 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 Department requires the annual reporting of actual PM/PM_{10}, VOC, and SO_2 emissions for the following units: EU Nos. 063, 064, 065, 066, 067, 068, 069 and new emissions units Prilled sulfur transfer and sulfur melter scrubber stack.
[Permit Application dated 07/22/2014; Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

9. Application for Title V Air Operation Permit - This permit authorizes construction or modification of the permitted emissions units 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(s). 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/)* and

b. copies of the most recent month of records/logs specified in Specific Condition No. A.6.

The application shall be submitted to the Permitting Authority.
[Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. EU Nos. 063, 064, 065, 066, 067, 068, 069, 090 & 091

This section of the permit addresses the following emissions units (EUs).

EU ID No.	Emissions Unit Description
060	7,500 Ton Rail Storage Molten Sulfur Storage Tank
062	15,000 Ton Molten Sulfur Storage Tank
063	1,500 Ton Truck Unloading Pit, Sulfur Pit (North)
067	1,500 Ton Truck Unloading Pit, Sulfur Pit Front Vent
068	1,500 Ton Truck Unloading Pit, Sulfur Pit Rear Vent
064	350 Ton Truck Unloading Pit, Sulfur Pit (South)
069	350 Ton Truck Unloading Pit, Sulfur Pit Vent
065	800 Ton Railcar Unloading Pit
066	200 Ton Molten Sulfur Transfer Pit
080	1 Molten Sulfur Truck Loading Station
090	Prilled Sulfur Transfer (Rail/Truck Unloading, Silo & Hopper)
091	Sulfur Melter Scrubber Stack

The molten sulfur storage and handling system consists of one 7,500 ton molten sulfur storage tank, one 800 ton railcar unloading pit, one 1,500 ton truck unloading pit (north), one 350 ton truck unloading pit (south), one 15,000 ton molten sulfur storage tank, a molten sulfur truck loading station, and the associated transfer pumps and piping. The prilled sulfur system consists of a railcar unloading station, truck unloading station, a silo, a hopper and a sulfur melter with a scrubber. The prilled sulfur railcar unloading and truck unloading cannot operate concurrently. The permittee trucks any additional molten sulfur offsite.

{Note: Although the 1,500 ton Truck Unloading Pit is technically a single emission unit, emission unit numbers -063, -067, and -068 have been assigned to it to accommodate the data handling system (each vent is inputted separately). In addition, the 350 Ton Truck Unloading Pit is technically a single emission unit, emission unit numbers -064 and -069 have been assigned to it to accommodate the data handling system.}

PERFORMANCE RESTRICTIONS

A.1. Permitted Capacity – The total molten sulfur throughput rate (as measured by the amount received) shall not exceed 14,000 tons per day, and shall not exceed 2,110,000 tons per consecutive 12-month period. The total molten sulfur usage rate by this production facility shall not exceed 1,760,000 tons per consecutive 12-month period as measured by the amount received minus the amount or molten sulfur shipped offsite.
[Rule 62-210.200 (definition of Potential to Emit), F.A.C.]

A.2. Authorized Material Input –The total molten sulfur produced from prilled sulfur by the prilled sulfur melter plant shall not exceed 1,360,000 tons per consecutive 12-month period. The total molten sulfur input rate for the same consecutive 12-month period shall not exceed 2,110,000 tons minus the actual amount molten sulfur input from the prilled sulfur melter plant into the sulfur manifold.
[Permit Application dated 07/22/2014 and Rule 62-210.200(definition of Potential to Emit), F.A.C.]

A.3. Restricted Operation - The hours of operation are not limited (8760 hours per year).
[Rules 62-4.070(3) and 62-210.200 (definition of Potential to Emit), F.A.C.]

EMISSIONS STANDARDS

A.4. Emissions Standard –

{Permitting Note: For emission inventory and PSD purposes, the estimated maximum emissions from the emissions units are noted below}:

EU No.	E.U.	PM/PM_{10}		SO_2		TRS/H_2S		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
-063, -067, -068	No. 1 Truck Pit	0.07	0.28	0.11	0.43	0.04	0.21	0.07	0.25
-064, -069	No. 2 Truck Pit	0.04	0.11	0.04	0.18	0.04	0.07	0.04	0.11
-065	Rail Pit	0.07	0.28	0.11	0.43	0.04	0.21	0.07	0.25
-066	Transfer Pit	0.04	0.14	0.04	0.14	0.04	0.07	0.04	0.07
-060	Rail Storage Tank	0.6	2.6	0.5	2.1	0.2	1.0	0.3	1.2
-062	No. 3 Storage Tank	0.6	1.1	0.5	2.2	0.2	1.0	0.3	1.0
-090	Prilled Sulfur Transfer	0.46	2.0	0	0	0	0	0	0
-091	Sulfur Melter	0.98	4.3	0.61	2.66	0.19	0.83	0.6	2.64
	Totals	2.85	10.82	1.89	8.13	0.73	3.4	1.42	5.52

[Construction Permit Application dated 07/22/2014]

NOTIFICATION REQUIREMENTS

A.5. Notification of Operation Commencement - The permittee shall notify the Compliance Authority in writing of the date of commencing operation of the EU Nos. 090 and 091 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)]

RECORDKEEPING AND REPORTING REQUIREMENTS

A.6. In order to document compliance with Specific **Condition A.1.**, the permittee shall keep the following records at a minimum:

A) Facility ID number.
B) Month, Day, and Year.
C) Throughput rate for the Molten Sulfur System (as measured by the amount received) in tons/day. This will be calculated by the total amount of molten sulfur received in a day.
D) Usage Rate of molten Sulfur by the production facility in tons/day. This will be calculated by the total amount of molten sulfur used by the facility in a day.
E) Prilled Sulfur Melter Plant production rate going into the molten sulfur manifold in tons/day
F) Monthly total molten sulfur received (tons/month).
G) Monthly total molten sulfur usage by the production facility (tons/month).
H) Monthly total Prilled Sulfur Melter Plant production going into molten sulfur manifold (tons/month)

I) A consecutive 12 month period (most recent 12 months) of the molten sulfur throughput rate (as measured by the amount received) in tons/year will be maintained for compliance with the annual limit.

J) A consecutive 12 month period (most recent 12 months) of the Prilled Sulfur Melter Plant production going into the molten sulfur manifold for compliance with the annual limit.

K) A consecutive 12 month period (most recent 12 months) of the production facility molten sulfur usage rate in tons/year will be maintained for compliance with the annual limit.

The daily recordkeeping log shall be completed by the end of the following week. The monthly recordkeeping log shall be completed by the end of the week following the end of the preceding month. The above records shall be maintained for a minimum of the most recent five (5) year period and made available to the Department upon request.

[Rules 62-213.440(1) and 62-4.070(3), F.A.C. and Permit No. 1050059-034-AC]

A.7. Records Retention. The permittee shall record the Facility ID, Location, Date, Time, and Operator initials of watering or sweeping to control unconfined emissions of particulate matter on roads for periods when Sulfur Truck Loading occurs. Such records shall be retained for a minimum of five (5) years and shall be available for inspection by the Department upon request.

[Rules 62-4.070(3) and 62-213.440(1), F.A.C. and Construction Permit 1050059-034-AC]