TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Mosaic Fertilizer, LLC
8813 U.S. Highway 41 South
Riverview, FL 33569

Riverview Facility

Facility ID No. 0570008

PROJECT

Project No. 0570008-068-AC
Application for Minor Air Construction Permit
Project Name: Installation of coating oil ribbon
blenders in No. 5 granulation plant and No. 6 AP Plant

COUNTY

Hillsborough County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Management
Southwest District Office
Temple Terrace, Florida 33637-0926

4/25/2011

Prepared by Quaid Noor

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

I. <u>Project Description:</u>

A. Applicant:

Larry Simpson, Plant Manager
Mosaic Fertilizer, LLC – Riverview Facility
13830 Circa Crossing Drive
Lithia, FL 33547

B. Professional Engineer:

Rama Iyer, P.E.
Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, FL 33547

C. Project Location:

8813 U.S. Highway 41 South

D. Project Summary:

This construction permit authorizes the installation of coating oil ribbon blenders in the No. 5 granulation plant and No. 6 AP Plant downstream of polishing screens and before the product belt conveyor. The current practice is to apply the coating oil into the rotary coolers at both plants. This project will modify the following emission units:

E.U. No. 007 – No. 6 AP Plant
E.U. No. 055 - No. 5 Granulation Plant

E. Application Information:

Application Received on: 3/2/2011
Application Complete on: 3/2/2011

II. Rule Applicability

This project is subject to the preconstruction review requirements of Chapter 403, Florida Statutes and Chapters 62-204 through 62-297, Florida Administrative Code (F.A.C.), as indicated below.

Subject to:	Y/N	Comments
Rule 62-210.300, F.A.C. - Project Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements, F.A.C.	Y	Not exempt from general permitting requirements
Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration	N	Facility is a PSD major source but this project does not trigger PSD review
Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards	Y	Phosphate fertilizer plant is a source of particulate matter (PM) emissions.
Rules 62-296.320(1) and (2), F.A.C. - General	Y	Phosphate fertilizer plant is not a

Subject to:	Y/N	Comments
Pollutant Emission Limiting Standards (VOCs and Odor)		major source of VOC and could be a source of odors
Rule 62-296.400, F.A.C. - Stationary Source Emission Standards	Y	Phosphate Fertilizer Plants are subject to 62-296.403, F.A.C.
Rule 62-296.500, F.A.C. - Reasonably Available Control Technology (VOC)	N	There is no applicable source category
Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (PM)	Y	Phosphate fertilizer plants are located in the PM RACT area and subject to PM RACT . They are also subject to Phosphate Processing Operations per 62-296.705, F.A.C.
Rule 62-204.800, F.A.C. - Standards of Performance for New Stationary Sources (NSPS)	Y	Phosphate Fertilizer Plants are subject to 40 CFR 60, Subpart V
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants (NESHAPS – 40 CFR 61)	N	There is no applicable source category
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants for Source Categories a.k.a. MACT (NESHAPS – 40 CFR 63)	Y	Phosphate Fertilizer Plants are subject to 40 CFR 63, Subpart BB
Chapter 62-213, F.A.C. - Operation Permits for Major Sources of Air Pollution	Y	facility is a Title V source
Rule 62-297.310, F.A.C. - General Compliance Test Requirements, F.A.C.	Y	VE, PM and F testing are required for phosphate fertilizer plants.

III. Summary of Emissions

Pollutant	EU Nos. and brief description	Potential Emissions (lbs/hr., tpy, lbs/ton, etc., as applicable)	Allowable Emissions (gr/dscf, lbs/hr., tpy, lbs/ton, opacity, etc.)
PM/PM_{10}	007, No. 6 AP Plant 055, No. 5 Granulation Plant	12.88 lbs/hr, 0.15 lb/ton and 56.39 tpy 12.8 lbs/hr and 56.1 tpy	12.88 lbs/hr, 0.15 lb/ton and 56.39 tpy 12.8 lbs/hr and 56.1 tpy
F	007 055	3.0 lbs/hr, 0.035 lb/ton, and 13.16 tpy 3.3 lbs/hr, 0.06 lb/ton, 14.5 tpy	3.00 lbs/hr, 0.035 lbs/ton, and 13.16 tpy 3.3 lbs/hr, 0.06 lb/ton, 14.5 tpy
VE	007		20% Opacity

Pollutant	EU Nos. and brief description	Potential Emissions (lbs/hr., tpy, lbs/ton, etc., as applicable)	Allowable Emissions (gr/dscf, lbs/hr., tpy, lbs/ton, opacity, etc.)
	055		10% Opacity

PSD Applicability Table:

Pollutant (EUs)	Baseline Actual Emissions (TPY)	Projected Actual Emissions (TPY)	Increase Due to Project = Projected Actual Minus Baseline Actual Emissions (TPY)	PSD Significant Emission Rate (TPY)	PSD Required Y/N
PM/PM_{10}				25/15	N
007	35.8	35.8	0		
055	18.8	18.8	0		
F				3	N
007	5.8	5.8	0		
055	10.9	10.9	0		

{Notes: a. E.U. No. 007: The estimated future actual emissions are slightly higher than the baseline actual emissions, i.e., 38.3 tpy for PM and 6.0 tpy for F respectively. The emissions increases are being accommodated by the demand growth exclusion of 2.5 tpy for PM and 0.3 tpy for F.

b. E.U. No. 055: The estimated future actual emissions are slightly higher than the baseline actual emissions, i.e., 22.6 tpy for PM and 12.6 tpy for F respectively. The emissions increases are being accommodated by the demand growth exclusion of 3.8 tpy for PM and 1.7 tpy for F.}

IV. Conclusions

The emission limits proposed by the applicant will meet all of the requirements of Chapters 62-204 through 297, F.A.C.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance with all the applicable requirements of Chapters 62-204 through 297, F.A.C.

V. Preliminary Determination

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft

permit. Additional details of this analysis may be obtained by contacting the project engineer at the Florida Department of Environmental Protection Air Resource Management, Southwest District 13051 North Telecom Parkway, Temple Terrace, Florida 33637-7600.

Pursuant to Section 403.087, Florida Statutes and Section 62-4.070, Florida Administrative Code, the Department hereby gives notice of its intent to issue a permit to construct the aforementioned air pollution source in accordance with the draft permit and its conditions as stipulated (see attached).