Mosaic Fertilizer, LLC
New Wales Facility
Facility ID No.: 1050059
Polk County

Title V Air Operation Permit Revision
Final Title V Permit No. 1050059-069-AV
Revision to Title V Air Operation Permit No**.:** 1050059-045-AV

Permitting and Compliance Authority:
Florida Department of Environmental Protection
Southwest District
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone: 813/632-7600
Fax: 813/632-7668

[electronic file name: 1050059.069.av.f.rev.Mosaic New Wales]

i

Title V Air Operation Permit Revision
Final Title V Permit No. 1050059-069-AV
Revision to Title V Air Operation Permit No.: 1050059-045-AV

Table of Contents

Section	Page Number
Title Page	i
Table of Contents	ii
Placard Page (DEP letterhead)	
I. Facility Information	AA1 – AA5
A. Facility Description.	
B. Summary of Emissions Unit ID No(s). and Brief Description(s).	
C. Relevant Documents.	
II. Facility-wide Conditions	BB1 – BB3
III. Emissions Unit(s) and Conditions	
CC. Common Conditions	CC1 – CC8
A. -002 Sulfuric Acid Plant No. 1	
-003 Sulfuric Acid Plant No. 2	
-004 Sulfuric Acid Plant No. 3	
-042 Sulfuric Acid Plant No. 4	
-044 Sulfuric Acid Plant No. 5	A1 – A7
B. -008 Phosphoric Acid Plant (East)	
-017 Phosphoric Acid Plant (West)	B1 – B2
C. -039 Phosphoric Acid Plant No. 3	C1 – C2
D. -053 Phosphoric Acid Clarification and Storage Area	
-048 30% Clarification Area (Area 10)	D1 – D4
E. -009 DAP Plant No. 1	E1 – E3
F. -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	F1 – F6
G. -011 MAP Prill Plant	
-055 MAP Plant Cooler	G1 – G3
H. -015 Animal Feed Ingredient Shipping/Truck Loadout	
-023 Animal Feed Ingredient Storage Silos (3)--"A Side"	

Section			Page Number
	-024	Animal Feed Ingredient Storage/Shipping/Railcar Loadout	
	-025	Animal Feed Ingredient--(2) Limestone Storage Silos	
	-026	Animal Feed Ingredient--Silica Storage Bin	
	-028	Animal Feed Ingredient Storage Silos (3)--"B Side"	
	-052	Animal Feed Ingredient--Limestone Feed Bin	H1 – H4
I.	-027	Animal Feed Ingredient Granulation Plant	I1 – I2
J.	-030	Multifos Soda Ash Rail Hopper Car Unloading System	
	-031	Multifos Soda Ash Conveying System	
	-032	Multifos "A" Kiln Cooler	
	-033	Multifos "B" Kiln Cooler	
	-034	Multifos A and B Kilns Milling and Sizing System--West Baghouse	
	-035	Multifos A and B Kilns Milling and Sizing System--East Baghouse	
	-036	Multifos A and B Kilns, Dryer and Blending Operation	
	-038	Multifos A and B Kilns Milling and Sizing System--Surge Bin	
	-074	Multifos C Kiln	
	-075	Multifos Kiln C Cooler Baghouse	
	-076	Multifos Kiln C Milling & Sizing Baghouse	J1 – J8
K.	-060	7,500 Ton Rail Storage Molten Sulfur Storage Tank	
	-062	15,000Ton 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 Railcar Unloading Pit	
	-066	200 Ton Molten Sulfur Transfer Pit	
	-080	1 Molten Sulfur Truck Loading Station	K1 – K4
L.	-070	Limestone Storage Silo/Rock Grinding	L1 – L3
M.	-071	Phosphogypsum Stack	M1 – M.1
N.	-078	Granular Monoammonium Phosphate (GMAP) Plant	N1 – N7
O.	-087	Existing Emergency Stationary CI RICE ≤ 500 HP	
	-088	Existing Emergency Stationary CI RICE 100≤ HP ≤ 500	
	-089	Existing Emergency Stationary CI RICE <100 HP	O1 – O3
MACT.A.		40 CFR 63 Subparts A, AA & BB – General Provision Common Conditions	MACTA1
MACT.AA.		40 CFR 63 Subpart AA Common Conditions	MACTAA1 - 2
MACT.BB.		40 CFR 63 Subpart BB Common Conditions	MACTBB1 – 2

Section **Page Number**

CAM. Compliance Assurance Monitoring (CAM) Conditions CAM1

IV. Appendices and Attachments (listed in sequence as attached):
Appendix A-1, Abbreviations, Definitions, Citations, and ID Numbers
Appendix H-1, Permit History
Appendix I-1, List of Insignificant Emission Units and /or Activities
Appendix U-1 List of Unregulated Emission Units and/or Activities.
Appendix TV-6, Title V Conditions (version dated 06/23/06) with AOR & Renewal updates dated 11/10/08
Appendix CAM
Appendix CAM Plan (MACT Option 1& 2 + AMP)
Appendix Flow Diagrams for CAM
Appendix 60 - Subpart A – NSPS General Provisions
Appendix 60 - Subpart H – Standards of Performance for Sulfuric Acid Plants
Appendix 61 - Subpart A – National Emission Standards for Hazardous Air Pollutants (NESHAP) - General Provisions
Appendix 61 - Subpart R – National Emission Standards for Radon Emissions from Phosphogypsum Stacks
Appendix 63 - Subpart A – General Provisions
Appendix 63 - Subpart A –General Provisions (AA & BB Combined)
Appendix 63 - Subpart AA - NESHAP for Phosphoric Acid Manufacturing Plants (version dated 4/20/06)
Appendix 63 - Subpart BB - NESHAP Phosphate Fertilizer Production Plants (version dated 4/20/06)
Appendix 63 - Subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)
Appendix 63 - Subpart ZZZZ – RICE Summary of Requirements
Appendix 63 - Subpart ZZZZ – RICE Inventory and Facility Applicable Requirements
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)
Table 297.310-1 Calibration Schedule (version dated 10/07/96)
Figure 1 - Summary Report – Gaseous and Opacity Excess Emissions and Monitoring System Performance Report (version dated 7/96)
Table CAM Applicability
Statement of Basis

Attachment A - Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants
Attachment B – NESHAP Alternate Monitoring Methods vide Administrative Order No. 06-H-AP
Attachment C – PM RACT Exemption

Florida Department of Environmental Protection

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

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

Permittee:
Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, FL 33547

Final Permit No.: 1050059-069-AV
Facility ID No.: 1050059
SIC Nos.: 28, 2874, 2819
Project: Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit No. 1050059-045-AV. The Title V permit revision is issued for the purpose of incorporating the conditions of the construction permit Nos. 1050059-057-AC for the replacement of a 5,000-Ton Molten Sulfur Storage Tank with a 15,000-Ton Tank; 1050059-061-AC (BART Exemption) for the emission reduction of Sulfuric Acid Plant (SAP) No. 3, Diammonium Phosphate (DAP) Plant No. 1, Monoammonium Phosphate (MAP) Plant, and Animal Feed Ingredient (AFI) Plant (Under Scenario A); 1050059-063-AC for the SAP No. 3 Sulfur Furnace Replacement; and 1050059-065-AC for the DAP No. 1 Reactor and Scrubbers Replacement. This permit also incorporates existing compression ignition (CI) reciprocating internal combustion engines (RICE) that are subject to 40 CFR 63, Subpart A – General Provisions and Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants (NESHAPs). This existing facility is located at 3095 Highway 640, Mulberry, Polk County; UTM Coordinates: Zone 17, 396.7 km East and 3079. 3 km North; Latitude: 27° 50’03” North and Longitude: 82° 02’57” West.

{Note: The construction permit 1050059-061-AC (BART Exemption Permit) addresses the following emission units: EU No. 002 – Sulfuric Acid Plant (SAP) No. 1, EU No. 003 – SAP No. 2, EU 004 – SAP No. 3, EU No. 009 – DAP Plant No. 1, EU 011 – MAP Plant, EU 027 – AFI Plant, and EU 036 – Multifos A and B Kilns, Dryer and Blending Operation for emission reductions under two scenarios. Mosaic has requested to incorporate only EU Nos. 004 and 009 of the BART Exemption Permit 1050059-061-AC under scenario A in this TV Revision project 1050059-069-AV. The emission reduction for these two emission units have already been achieved. Emission reductions under the BART Exemption Permit for the rest of the emission units, i.e., EU Nos. 002, 003, 011, 027 and 036 are still incomplete. Later on, upon completion and prior to expiration of the BART Exemption Permit, Mosaic will notify the Department to include the balance emission units in the Title V Permit.}

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Attachment A, Memorandum of Understanding Regarding Best Operational Start-Up Practices for Sulfuric Acid Plants
Attachment B, NESHAP Alternate Monitoring Methods vide Administrative Order No. 06-H-AP
Attachment C, PM RACT EXEMPTION

Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-6, TITLE V CONDITIONS version dated 06/23/06
APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (version dated 7/96)
Appendix 60 - Subpart A, NSPS General Provisions
Appendix 60 - Subpart H, NSPS – Standards of Performance for Sulfuric Acid Plants
Appendix 61 - Subpart A, National Emission Standards for Hazardous Air Pollutants (NESHAP) – General Provisions
Appendix 61 - Subpart R, NESHAP - National Emission Standards for Radon Emissions from Phosphogypsum Stacks
Appendix 63 - Subpart A, NESHAP - General Provisions
Appendix 63 - Subpart A, NESHAP - General Provisions (AA & BB Combined)
Appendix 63 - Subpart AA, NESHAP - Phosphoric Acid Manufacturing Plants (version dated 4/20/06)
Appendix 63 - Subpart BB, NESHAP - Phosphate Fertilizer Production Plants (version dated 4/20/06)
Appendix 63 - Subpart ZZZZ, NESHAP - Stationary Reciprocating Internal Combustion Engines (RICE)
Appendix 63 - Subpart ZZZZ, NESHAP - RICE Summary of Requirements
Appendix 63 - Subpart ZZZZ, NESHAP - RICE Inventory and Facility Applicable Requirements
Appendix CAM
Appendix CAM Plan (MACT Option 1& 2 + AMP)

Initial Effective Date: February 14, 2008
Revision Effective Date: October 3, 2011
Renewal Application Due Date: July 4, 2012
Expiration Date: February 14, 2013

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
SOUTHWEST DISTRICT

_____
Cindy Zhang-Torres, P.E.
Air Permitting Manager
Southwest District

CZT/qn/pp

Section I. Facility Information.

Subsection A. Facility Description.

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 the 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 diammonium phosphate (DAP) plants; a monoammonium phosphate (MAP) plant; a granular monoammonium phosphate (GMAP) plant; an animal feed ingredients (AFI) plant; a multifos production plant; a molten sulfur storage & handling system; a limestone storage silo/rock grinding operation; and a phosphogypsum stack. This plant started operations in 1975. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the initial notification from this facility dated 10/05/99, under the requirements of 40 CFR 63, Subparts AA and BB, this facility is a major source of hazardous air pollutants (HAPs). Based on the Title V air operation permit Revision application received 09/26/03, this facility's applicability status with regard to major source of hazardous air pollutants (HAPs) was not indicated. The HAP pollutant of concern is hydrogen fluoride. Actual hydrogen fluoride emissions were measured at the Mosaic-South Pierce Plant by ARCADIS {see Final Report dated 06/20/05}. Hydrogen fluoride emissions from the South Pierce Plant were determined to be at least 160 TPY. The South Pierce Plant produces 2,400 tons/day of phosphoric acid with two phosphoric acid trains (see the referenced capacities stated in the Title V permit). The New Wales Plant is the largest manufacturer of phosphoric acid with three phosphoric acid trains able to produce a total of 6,456 tons/day.

This facility has emissions units that are subject to the new NESHAPs requirements {also referred to as MACTs} from: 40 CFR 63, Subpart A, General Provisions; 40 CFR 63, Subpart AA, National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants; and, 40 CFR 63, Subpart BB, National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants. These federal regulations are adopted and incorporated by reference in Rule 62-204.800, F.A.C.

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

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

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

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

Regulated Emissions Units and/or Activities

E.U. ID No.	Brief Description
-002	Sulfuric Acid Plant No. 1
-003	Sulfuric Acid Plant No. 2
-004	Sulfuric Acid Plant No. 3
-042	Sulfuric Acid Plant No. 4
-044	Sulfuric Acid Plant No. 5
-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 Plant
-055	MAP Plant Cooler
-015	Animal Feed Ingredients (AFI) Shipping/Truck Loading
-023	AFI Storage Silos (3)--North Side
-024	AFI Shipping/Rail Car Loading
-025	AFI Limestone Storage Silos (2)
-026	AFI Silica Unloading & Storage
-027	AFI Granulation Plant
-028	AFI Storage Silos (3)—South Side
-052	AFI Limestone Feed Bin
-030	Multifos Soda Ash Unloading System
-031	Multifos Soda Ash Conveying System
-032	Multifos "A" Kiln Cooler
-033	Multifos "B" Kiln Cooler
-034	Multifos A and B Kilns Milling & Sizing System - West Bag Collector
-035	Multifos A and B Kilns Milling & Sizing System - East Bag Collector
-036	Multifos A and B Kilns, Dryer and Blending Operation
-038	Multifos A and B Kilns Milling & Sizing System--Surge Bin Bag Collector
-074	Multifos C Kiln
-075	Multifos Kiln C Cooler Baghouse
-076	Multifos Kiln C Milling & Sizing Baghouse

E.U. ID No.	Brief 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
-070	Limestone Storage Silo/Rock Grinding
-071	Phosphogypsum Stack
-078	GMAP Plant
-087	Existing Emergency CI RICE ≤ 500 HP
-088	Existing non-emergency CI RICE 100≤ HP ≤ 500
-089	Existing non-emergency CI RICE < 100 HP

Unregulated Emissions Units and/or Activities

-072	Facility-Wide Fugitive Emissions
-012	GMAP Plant Storage Building

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History
Statement of Basis

These documents are on file with permitting authority:

Initial Notification to USEPA of 40 CFR 63, Subparts AA and BB dated 10/5/99 from Mr. P. A. Steadham.
Retraction of Initial Notification to USEPA of 40 CFR 63, Subparts AA and BB dated

6/7/2002 from Mr. M. A. Daigle.

Final Report dated 06/20/05 on Hydrogen Fluoride Emission Rates from South Pierce Plant by ARCADIS.
Application for a Title V Air Operation Permit Revision received 09/26/2003 via EPSAP.
Additional Information Request dated 11/20/2003.
Request for Additional Time to Respond dated 02/17/2004.
Additional Information Response received 04/22/2004.
Additional Information Request dated 05/20/2004.
Additional Information Response received 07/12/2004.
Trip Report dated 07/26/2005.

1st DRAFT Title V Air Operation Permit Revision & Air Construction Permit clerked on March 3, 2006.
Mosaic Fertilizer, LLC, 1st request for an extension of time to file a petition for an administrative hearing dated March 16, 2006.
DEP Order dated March 21, 2006, granting extension of time to April 17, 2006.
Mosaic Fertilizer, LLC, 2nd request for an extension of time to file a petition for an administrative hearing dated April 13, 2006.
DEP Order dated April 24, 2006, granting extension of time to May 15, 2006.
Mosaic Fertilizer, LLC, 3rd request for an extension of time to file a petition for an administrative hearing dated May 12, 2006.
Mosaic Fertilizer, LLC, 4th request for an extension of time to file a petition for an administrative hearing/petition request dated June 23, 2006.
DEP withdrawal of 1st DRAFT Title V Air Operation Permit Revision & Air Construction Permit clerked on July 6, 2006.

Air Construction Permit, Project No. 1050059-042-AC, clerked on March 3, 2006.
Mosaic Fertilizer, LLC, Withdrawal of Project No. 1050059-042-AC, dated August 31, 2006.

Alternative Monitoring Ranges dated October 10, 2006.

Draft Air Construction Permit No. 1050059-052-AC clerked on November 8, 2006.
Mosaic Fertilizer, LLC, request for an extension of time to file a petition for an administrative hearing dated November 20, 2006.
DEP Order dated December 19, 2006, granting extension of time to January 22, 2007.
Final Determination dated January 26, 2007.
Final Air Construction Permit No. 1050059-052-AC clerked on February 2, 2007.

2nd DRAFT (Revised) Title V Air Operation Permit Revision clerked on November 8, 2006.
Mosaic Fertilizer, LLC, request for an extension of time to file a petition for an administrative hearing dated November 20, 2006.
Public notice published on December 16, 2006.
DEP Order dated December 19, 2006, granting extension of time to January 22, 2007.
Mosaic Fertilizer, LLC, request for an extension of time to file a petition for an administrative hearing dated January 16, 2007.

DEP Order dated January 24, 2007, granting extension of time to March 23, 2007.
Mosaic Fertilizer, LLC, request for an extension of time up to May 7, 2007 to file a petition for an administrative hearing dated March 16, 2007.
Mosaic Fertilizer, LLC, request for an extension of time up to June 29, 2007 to file a petition for an administrative hearing dated May 2, 2007.
Mosaic Fertilizer, LLC, request for an enlargement of time up to July 3, 2007.
Mosaic Fertilizer, LLC, request for an enlargement of time up to July 11, 2007 dated July 3, 2007.
DEP Order dated July 9, 2007, denying extension of time to file a petition for an administrative hearing.
Petition filed for administrative hearing filed by Mosaic Fertilizer, LLC on July 24, 2007.

Settlement Agreement between DEP and Mosaic Fertilizer, LLC clerked on November 5, 2007; Withdrawal of petition for administrative hearing.
3rd DRAFT (Revised) Title V Air Operation Permit Revision clerked on November 5, 2007.
Public notice published on November 10, 2007.
FINAL Permit posted on web site on December 21, 2007.

Alternate Monitoring Plan (AMP) Request received November 15, 2007.
AMP Request for Additional Information dated December 14, 2007.

Processing Schedule and related documents:
Renewal Title V Air Operation Permit issued: 02/14/2008
Application for a Title V Air Operation Permit Revision received 07/22/2010
Additional Information Request dated 09/13/2010
Additional Information Response received 02/11/2011, 03/18/2011 and 04/11/2011
Draft Title V Air Operation Permit Revision clerked on May 6, 2011
Revised Draft Title V Air Operation Permit Revision clerked on June 29, 2011
Public Notice published on July9, 2011

Section II. Facility-wide Conditions.
The following conditions apply facility-wide:

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.

2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 10162
Fairfax, VA 22038
Telephone: (703) 227-7650

and,
b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]

8. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see **Condition 57.** of APPENDIX TV-6, TITLE V CONDITIONS):
The following requirements are "not federally enforceable":

a. use of water to keep roadways and work areas damp or swept to control dust and windborne emissions;
b. use of enclosures and windbreaks, where practical; and,
c. oiling of fertilizer products to reduce dust generation.

[Rule 62-296.320(4)(c)2., F.A.C.; and, Final by the applicant in the Title V permit renewal application.]

9. Timely Recording, Monitoring and Reporting. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
{Permitting note: When quarterly or monthly reporting is specified within this permit, the reporting period refers to calendar quarters or calendar months, respectively.}
[Rule 62-213.440, F.A.C.]

10. Statement of Compliance - The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C. shall be submitted to the Air Compliance Section of the Southwest District of the Department, and EPA within 60 (sixty) days after the end of each calendar year using DEP Form No. 62-213.900(7), F.A.C.
{Permitting Note: This condition implements the requirements of Rule 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS)}
[Rules 62-213.440(3), and 62-213.900, F.A.C.]

11. Compliance Notification to the Department - Any reports, data, notifications, certifications, and requests required to be sent to the Department, should be sent to:

Department of Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone: 813/632-7600
Fax: 813/632-7668

12. Compliance Notification to the EPA - Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

13. Certification by Responsible Official (RO) - In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

14. Annual Operating Report (AOR) Requirement - On or before April 1 of each year, submit an Annual Operating Report [DEP Form 62-210.900(5)], for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or hard copy may be submitted.
[Rule 62-210.370(3), F.A.C.]
{Permitting Note: also see APPENDIX TV-6, Condition number 24.}

15. Permit Renewal - An application for a Renewal to this permit shall be submitted in accordance with the terms and conditions contained in Appendix TV-6, Condition 5.
[Rules 62-4.090 and 62-213.(1)(a)2., F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection CC. Common Conditions.

The following conditions apply to all regulated emissions unit(s):

Essential Potential to Emit (PTE) Parameters

CC.1. Hours of Operation. Unless otherwise noted within this permit, all emissions units are allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

CC.2. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

CC.3 Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

CC.4 Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

CC.5 Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
(a) General Compliance Testing.

1. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to Revision:
   a. Did not operate; or
   b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
2. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
   a. Visible emissions, if there is an applicable standard;
   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 100 tons per year or more of any other regulated air pollutant; and
   c. Each NESHAP pollutant, if there is an applicable emission standard.
3. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
4. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C., SIP Approved]

CC.6 When PM Tests Not Required. Annual and permit Revision compliance testing for particulate matter emissions is not required for these emissions units while burning:
   a. only gaseous fuel(s); or

b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
c. only liquid fuel(s) for less than 400 hours per year.
[Rules 62-297.310(7)(a)3., 4. & 5., F.A.C.]

Test Methods and Procedures

CC.7 Visible Emissions (VE). The test method for visible emissions shall be either EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C., or DEP Method 9, whichever is applicable.
[Rules 62-204.800 and 62-297, F.A.C.]

CC.8 DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
   a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
   b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.
[Rule 62-297.401, F.A.C.]

CC.9. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be

obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

CC.10. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

CC.11. Operating Rate During & After Testing.Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

CC.12. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.
(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

CC.13. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

Recordkeeping and Reporting Requirements

CC.14. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Compliance Authority, in accordance with Rule 62-4.130, F.A.C. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Compliance Authority.
[Rule 62-210.700(6), F.A.C.]

CC.15. Test Reports.
(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority, on the results of each such test.
(b) The required test report shall be filed with the Compliance Authority, as soon as practical but no later than 45 days after the last sampling run of each test is completed.
(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority, to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
l2. The type, manufacturer and configuration of the sampling equipment used.

13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

CC.16. Better Grade Fuel Oil.
A better grade fuel oil is defined as a fuel oil with a higher ranking in the following list:

Better Grade (Top of list)
new, No. 2 fuel oil, or No. 2 on-specification fuel oil
new, No. 3 fuel oil, or No. 3 on-specification fuel oil
new, No. 4 fuel oil, or No. 4 on-specification fuel oil
new, No. 5 fuel oil, or No. 5 on-specification fuel oil
new, No. 6 fuel oil, or No. 6 on-specification fuel oil
{Permitting Note: When No. 6 fuel oil is specified in this permit, a better grade may be substituted.}

CC.17. Used Oil. Burning of on-specification used oil is allowed in emissions units specified within this permit in accordance with all other conditions of this permit and the following additional conditions:

a. On-specification Used Oil Allowed as Fuel: This permit allows the burning of used oil fuel meeting EPA "on-specification" used oil specifications, with a PCB concentration of less than 50 ppm, originating from FPL operations. Used oil that does not meet the specifications for on-specification used oil shall not be burned at this facility. On-specification used oil shall meet the following specifications: [40 CFR 279, Subpart B.]
   Arsenic shall not exceed 5.0 ppm;
   Cadmium shall not exceed 2.0 ppm;
   Chromium shall not exceed 10.0 ppm;
   Lead shall not exceed 100.0 ppm;
   Total halogens shall not exceed 1000 ppm;
   Flash point shall not be less than 100 degrees F.
b. Quantity Limited: The maximum total quantity of used oil that may be burned in all emissions units is 1.5 million gallons in any consecutive 12-month period.

c. Used Oil Containing PCBs Not Allowed: Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
d. PCB Concentration of 2 to less than 50 ppm: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
e. Testing Required: The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:
   Arsenic, cadmium, chromium, lead, total halogens, flash point, and PCBs.
   Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods), latest edition.
f. Record Keeping Required: The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department: [40 CFR 279.61 and 761.20(e)]
   (1) The gallons of on-specification used oil received and burned each month. (This record shall be completed no later than the fifteenth day of the succeeding month.)
   (2) The total gallons of on-specification used oil burned in the preceding consecutive 12-month period. (This record shall be completed no later than the fifteenth day of the succeeding month.)
   (3) Results of the analyses required above.
g. Reporting Required: The owner or operator shall submit, with the Annual Operation Report form, the analytical results and the total amount of on-specification used oil burned during the previous calendar year.

[Rules 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 279 and 40 CFR 761, unless otherwise noted]

Air Pollution Control Device/Systems Monitoring

*{Applicability Note: **Common Condition No. 18.** applies to air pollution control devices/systems not subject to MACT or CAM as referenced in the emissions units sections of this permit.}*

*{Note: For ease of reference, **Common Condition No.18.** in this Subsection corresponds to **Facility-wide Condition 14.** of the initial Title V permit.}*

CC.18. Air Pollution Control Device/System Operation & Monitoring. In order to provide reasonable assurance that the air pollution control equipment or systems are operating properly, the permittee shall comply with the following:

a. The liquid flow rate (gallons per minute) to the pollution control system (e.g., scrubber) does not fall below:
   1. 90% of the rate reported during the most recent satisfactory compliance test, following the final issuance of this permit, or
   2. lower than a minimum liquid flow rate limit specified in a condition of this permit.
b. the pressure drop (inches of water) across the pollution control system (e.g., scrubber) shall not fall below:
   1. 90% of the rate reported during the most recent satisfactory compliance test, following the final issuance of this permit,

2. lower than a minimum pressure drop limit specified in a condition of this permit.
3. In the case of pressure drops of less than 5 inches of water, a change of 0.5 inches of H_2O below the drop reported during the most recent satisfactory compliance test, following the final issuance of this permit.

c. The average liquid flow rate or pressure drop over a 24 hour period may be used in determining the "liquid flow rate" or "pressure drop" in **a.** and **b.** above. It shall not be considered a violation if the liquid flow rate or pressure drop falls below the 90% value or specified minimum limit if another compliance test, at the same pollution control system parameters is conducted within 30 days and shows compliance. Such tests shall be conducted in accordance with the testing conditions specified for a standard compliance test as specified in the conditions within.

d. If an additional compliance test is to be conducted, as described in **c.** above, then the permittee shall submit a Final test protocol, for approval by the Department, with the test notification.

*{Permitting Note: As an alternative to the minimum requirements of **a.** and **b.** above, the permittee may elect to propose a test protocol, with the Department's approval, to demonstrate fixed minimum or maximum rates and operating tolerances.}*
[Rule 62-4.070(3), F.A.C.]

CC.19. This permit includes a "Subsection" for each emission unit which includes a description of that emission unit. That description is descriptive only and is not enforceable.

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-002	Sulfuric Acid Plant No. 1
-003	Sulfuric Acid Plant No. 2
-004	Sulfuric Acid Plant No. 3
-042	Sulfuric Acid Plant No. 4
-044	Sulfuric Acid Plant No. 5

Sulfuric Acid Plants (SAPs) No. 1, No. 2, No. 4, and No. 5 consist of a double absorption system.
No. 1 and No. 2 plants produce 3,400 tons per day each and No. 4 and No. 5 plants produce 2,900 tons per day each of sulfuric acid (100% H_2SO_4 basis). Acid mist emissions are controlled by a demister.

Sulfuric Acid Plant (SAP) No. 3 consists of a double absorption system designed to produce 3,400 tons per day of 100% H_2SO_4. Instead of utilizing a conventional interpass absorption tower, this plant utilizes a heat recovery system absorption tower. Acid mist emissions are controlled by a mist eliminator section in the final absorbing tower. The sulfur burner at SAP No. 3 was recently replaced by a like-kind new sulfur furnace.

{Permitting note(s): These emissions units are regulated under NSPS - 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)11., F.A.C.; Rule 62-296.402, F.A.C., Emission Standards for Sulfuric Acid Plants; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; and Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD).}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity

A.1.1. The sulfuric acid production at Sulfuric Acid Plants, No. 4 and No. 5, shall not each exceed 2,900 tons per day of 100% H_2SO_4.
[Rule 62-4.160(2), F.A.C., Rule 62-210.200, F.A.C., Definitions - (PTE), and AC53-192221]

A.1.2. The sulfuric acid production at Sulfuric Acid Plants No. 1, No. 2, and No. 3 shall not each exceed 3400 tons per day of 100% H_2SO_4.
[Rules 62-4.160(2) and 62-210.200, F.A.C., Definitions – (PTE); Construction Permit 1050059-036-AC (PSD-FL-325)]

A.1.3. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to

test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Emission Standards and Limitations ~~for Each Plant~~

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) A.2.-A.5.** are based on the specified averaging time of the applicable test method.}*

A.2. Sulfur Dioxide Emissions Limitations

A.2.1. Sulfur dioxide (SO_2) emissions shall not exceed any of the following for SAP Nos. 4 & 5:
a. 4 pounds per ton of 100% acid produced;
b. 483.3 pounds per hour; and,
c. 2117 tons per year.
[Rules 62-204.800(8)(b)11. and 62-296.402, F.A.C., 40 CFR 60.82(a), and AC53-192221]

A.2.2. Sulfur dioxide (SO_2) emissions shall not exceed the following for SAP Nos. 1 & 2:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
1	3.5, 24-hr rolling average 4.0, 3-hr rolling average	496 567	2,172
2	3.5, 24-hr rolling average 4.0, 3-hr rolling average	496 567	2,172

[Construction Permit 1050059-036-AC (PSD-FL-325)]

A.2.3. Sulfur Dioxide (SO_2) emissions shall not exceed the following for SAP No. 3:

SAP No.	lb/Ton of 100% H_2SO_4	lb/hr
3	3.5, 24-hour rolling average 4.0, 3-hr rolling average	496, 24-hour (daily) block CEMs average

Notes: (i) The above limits are more stringent than the limits in 40 CFR 60.82(a). (ii) The equivalent emissions are 2,172 TPY.
[Construction Permits 1050059-036-AC (PSD-FL-325) and 1050059-061-AC (BART Exemption)]

A.3. Sulfuric Acid Mist (SAM) Emissions Limitations

A.3.1. Sulfuric Acid Mist (SAM) emissions shall not exceed for SAP Nos. 4 & 5:
a. 0.15 pounds per ton of 100% acid produced;
b. 18.1 pounds per hour;
c. 79.4 tons per year.
[Rules 62-204.800(8)(b)11. and 62-296.402, F.A.C., 40 CFR 60.83(a)(1), and AC53-192221]

A.3.2. Sulfur Acid Mist (SAM) emissions shall not exceed the following for SAP Nos. 1 & 2:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
1	0.10	14	62
2	0.10	14	62

[Construction Permit 1050059-036-AC (PSD-FL-325)]

A.3.3. Sulfur Acid Mist (SAM) emissions shall not exceed the following for SAP No. 3:

SAP No.	lb/Ton of 100% H_2SO_4	lb/hr
3	0.05	7.1

{Notes: (i) The above limits are more stringent than the limits in 40 CFR 60.83(a)(1). (ii) The equivalent emissions are 31.1 TPY.}
[Construction Permits 1050059-036-AC (PSD-FL-325) and 1050059-061-AC (BART Exemption)]

A.4. Nitrogen Oxide Emissions Limitations

A.4.1. Nitrogen oxides emissions shall not exceed for SAP Nos. 4 & 5:
a. 0.12 pounds per ton of 100% acid produced;
b. 14.5 pounds per hour;
c. 63.5 tons per year.
The above nitrogen oxides limits are based upon a general emission factor of 18 ppm and are subject to revision if sufficient test data indicates that the emission factor is improper.
[AC53-192221]

A.4.2. Nitrogen oxides emissions shall not exceed the following for SAP Nos. 1 & 2:

SAP No.	lb/ton of 100% H_2SO_4	lb/hr	TPY
1	0.12	17	75
2	0.12	17	75

[Construction Permit 1050059-036-AC (PSD-FL-325)]

A.4.3. Nitrogen oxide emissions shall not exceed the following for SAP No. 3:

SAP No.	lb/hr	TPY
3	17	75

{Note: The equivalent emission rate is 0.12 lb/Ton of 100% H_2ASO_4, 3-hr rolling average.}
[Rules 62-210.200, F.A.C. Definitions – (PTE); Construction Permit 1050059-061-AC]

A.5. Visible emissions shall not be equal to or greater than 10% opacity.
[Rules 62-204.800(8)(b)11. and 62-296.402, F.A.C., and 40 CFR 60.83(a)(2)]

Excess Emissions

A.6. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.; Construction Permit 1050059-061-AC]

A.6.1 Excess Emissions Allowed: Sulfuric acid plants are authorized to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices to minimize emissions, in accordance with the agreement titled "Best Operational Start-Up Practices For Sulfuric Acid Plants" is followed. Unless otherwise specified by permit, excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.; Construction Permits 1050059-036-AC and 1050059-061-AC]

A.6.2. Excess Emissions Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.; Construction Permit 1050059-061-AC]

A.6.3. Best Operational Practices to Minimize Excess Emissions:

a. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in the most recent Title V permit.

b. Best operational practices to minimize excess SO_2 and sulfur trioxide (SO_3) emissions during startup are governed by this condition. The permittee shall follow the best operational practices to minimize excess emissions during startup contained within the attached Attachment A - Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants initially executed on October 25, 1989.

[Rules 62-296.340(5)(c) (escape BART) and 62-210.700(1), F.A.C.;Construction Permit No. 1050059-061-AC]

A.7. Best Operational Practices to Minimize Leaks of SO_2 and SO_3, or Other Fugitive Process Emissions: This permit acknowledges that leaks of sulfur dioxide and sulfur trioxide, or other fugitive process emissions that do not pass through a stack, may occur as part of routine operations. Best operational practices to minimize these emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions.
[Rule 62-296.320(4)(c), F.A.C., Construction Permit 1050059-061-AC]

Monitoring of Operations

A.8. The permittee shall operate and maintain equipment and/or instruments necessary to determine the production rate of H_2SO_4 as required in **Condition.A.1.** This equipment, along with any associated instrumentation, as well as the equipment and/or instruments necessary to measure other required process variables shall be calibrated and adjusted to indicate the true value of the parameter being measured. The frequency of calibration and adjustment shall be in accordance with the equipment and/or instrument manufacturers' recommendations.
[Rule 62-297.310(5)(b), F.A.C.]

Test Methods and Procedures

A.9. Frequency of Compliance Testing. The permittee shall test the emissions from SAP Nos. 1, 2, 3, 4 and 5 for opacity, sulfur dioxide, acid mist, and nitrogen oxides. Opacity, sulfur dioxide, and acid mist emissions are to be tested during each federal fiscal year, FFY (Oct 1 – Sep 30). Nitrogen oxide emissions are to be tested every five years prior to renewal. Nitrogen oxide emissions testing commenced in 1999.
[Rule 62-297.310(7), F.A.C.]

A.9.1. Tests Prior to Renewal: Within the 12-month period prior to renewing the Title V air operation permit, tests shall be conducted for NOx emissions from each SAP.
[Rules 62-296.340(5)(c) (escape BART), and 62-297.310(7)(a)3, F.A.C.]

A.10. Compliance with the emission limitations of **Condition Nos. A.2.1, A.2.2, A.2.3., A.3.1, A.3.2, A.3.3.,** and **A.5** shall be determined in accordance with 40 CFR 60.85 using EPA Methods 1, 2, 6, 8 and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297.401, F.A.C. Compliance with the emission limitations of **Condition A.4.1, A.4.2,** and **A.4.3.** shall be determined using EPA Method 7E contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C.
[Rules 62-204.800, 62-296.402(3) and 62-297, F.A.C.; 40 CFR 60.85]

Continuous Monitoring Requirements

A.11.1. A continuous emission monitoring system for the measurement of sulfur dioxide shall be calibrated, maintained and operated as specified in 40 CFR 60.84. The span value of the continuous monitor shall be set at 1000 ppm.
[40 CFR 60.84; Rules 62-204.800(8)(b)11. and 62-296.402(4), F.A.C.]

A.11.2. SO_2 CEMS Compliance Demonstration – For each of the SAP plants 1, 2 and 3, a continuous emission monitoring system (CEMS) for the measurement of sulfur dioxide (SO_2) emissions shall be calibrated, maintained and operated as specified in 40 CFR 60.84. The CEMS will be used to determine compliance with the 24-hour average emission limit for SO_2. The span value of the continuous monitor shall be set at 1000 ppm of SO_2. The CEMS shall be certified to meet Performance Specification 2 in Appendix B of 40 CFR 60 and the quality assurance procedure specified in Appendix F of 40 CFR 60.
[40 CFR 60 Appendices B and F, 60.7, 60.13, 60.84; Construction Permits
1050059-036-AC (PSD-FL-325) and 1050059-061-AC]

A.11.3. The permittee shall determine emissions in the units of the applicable standard (lb/ton) in accordance with 40 CFR 60.84(b) or (d). The lb/ton coversion factor determination and calculation procedure may be incorporated into electronic reporting programming software. The lb/ton conversion factor determination and calculation procedure shall be accessible to the Department and made available upon request.
[Rules 62-204.800(7)(b)10 and 62-297.500, F.A.C., and 40 CFR 60.84]

Recordkeeping and Reporting Requirements

A.12.1. In order to document ongoing compliance with the emission limitations of Specific Condition A.2.1., A.2.2., and A.2.3., the permittee shall maintain records on the Sulfuric Acid Plants. The records shall include, but not limited to, the following:

a. Facility Name and Unit name;
b. Date;

Daily

c. While operating, record the hours of operation;
d. While operating, record the H_2SO_4 production (in tons as 100% H_2SO_4). Documentation as to how daily production rates were calculated shall be included as part of the records;
e. 3-hour and 24-hour average of SO_2 emissions (lb/ton as 100% H_2SO_4) using the 3-hour and 24-hour rolling average or 3-hour and 24-hour block average as appropriate;
f. daily SO_2 average emissions (pounds/hour);

Daily records shall be completed within 5 business days of the day of operation.

[Rules 62-204.800(8)(b)11 and 62-213.440(1), F.A.C.]

A.12.2. Quarterly Reporting Requirements: The owners or operators of facilities for which monitoring is required shall submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.402, F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of 5 (five) years. {The permittee is required to use SO_2 continuous emissions monitoring systems for continuous compliance demonstrations.}

The permittee shall submit a written report of excess sulfur dioxide emissions for every calendar quarter in accordance with 40 CFR 60.7(b) and (c). Periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standard under 40 CFR 60.82. The excess emission report shall also include a statement of all periods during the quarter when the sulfur dioxide monitoring system was inoperative. Copies of the quarterly sulfur dioxide excess emission report shall be submitted to the Southwest District Office in Tampa.

[40 CFR 60.84(e); Rules 62-296.402(5) and 62-213.440(1)(b)2., F.A.C., Construction Permit 1050059-061-AC]

A.13. In accordance with 40 CFR 60.7(b), the permittee shall maintain records of any periods during which the sulfur dioxide monitor system is inoperative. Records on monitoring system performance evaluations, calibrations and maintenance shall be maintained in accordance with 40 CFR 60.7(d).
[Rule 62-204.800(8)(b)11., F.A.C and 40 CFR 60.7(d)]

A.14. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the sulfuric acid plants; or any malfunction of the air pollution control equipment.
[Rule 62-204.800(8)(b)11., F.A.C. and 40 CFR 60.7]

Reasonable Assurances

A.15. Not federally enforceable. The permittee shall follow the attached Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants executed on November 1, 1989.
[Rule 62-4.070(3), F.A.C.]

NSPS 40 CFR 60, Subpart A –General Provisions

A.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A - General Provisions** attached to this permit.
[Rule 62-204.800(8)(a), (c), (d) & (e), F.A.C.]

NSPS 40 CFR 60, Subpart H

A.17. These emissions units shall comply with NSPS - 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants, adopted and incorporated by reference.
[Rule 62-204.800(8)(b)11., F.A.C.]

Other

A.18. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection B. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-008	Phosphoric Acid Plant (East)
-017	Phosphoric Acid Plant (West)

The plants are sister units. These plants commenced operations in March 1975.

Emissions from the attack tank, filter and seal tanks are controlled by a cross flow scrubber which uses cooling pond water.

{Permitting notes: These emission units are regulated under NESHAP – 40 CFR 63, Subpart AA – National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants. These emission units are also regulated under Rule 62-296.403, F.A.C., Phosphate Processing.}

The following conditions apply to the emissions unit(s) listed above:

B.1. Permitted Capacity.

B.1.1. The P_2O_5 input rate of the Phosphoric Acid Plant East and Phosphoric Acid Plant (West) shall not exceed 2,200 tons P_2O_5 per day each. This P_2O_5 input rate correlates to an approximate equivalent production rate of approximately 2,134 tons P_2O_5 per day.
[Rule 62-4.160(2), F.A.C., Rule 62-210.200, F.A.C., Definitions - (PTE)]

B.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) B.2.** is based on the specified averaging time of the applicable test method.}*

B.2. Fluoride emissions from the Phosphoric Acid East and West Train scrubbers stack shall not exceed 0.02 pounds per ton of equivalent P_2O_5 feed and 36.6 pounds per day for each emission unit.
[Rule 62-296.403(1)(a), F.A.C., and requested by the permittee, October 27, 1995]

B.3. Not federally enforceable. All reasonable precautions shall be taken to minimize and control the generation of fugitive fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

B.4. Frequency of Compliance Testing. The permittee shall test the emissions from Phosphoric Acid East and West Train scrubbers for fluorides during each federal fiscal year, FFY (Oct 1 – Sep 30).
[Rule 62-297.310(7)(a)4., F.A.C.; 40 CFR 63.606(a)(1)]

B.5. Compliance with the emission limitations of **Conditions B.2.** shall be determined using EPA Methods 1, 2, 4, 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Section 62-297, F.A.C.
[Rule 62-297, F.A.C.]

B.6. The permittee shall maintain a daily record of hours of operation and the equivalent P_2O_5 feed. Documentation as to how daily production rates were calculated shall be included as part of the records. This daily log shall be maintained at the facility and shall be made available to the Department upon request.
[Rules 62-204.800(8)(b)26 and 62-4.070(3), F.A.C.; 40 CFR 63.605(b)(1)]

Other

B.7. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection C. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-039	Phosphoric Acid Plant No. 3

Phosphoric acid train No. 3 is designed to produce 2,500 tons per day of phosphoric acid. All three phosphoric acid trains share a common acid clarification system. Fluoride emissions from phosphoric acid train No. 3 are controlled by a cross-flow packed scrubber (using cooling pond water) followed by a cyclonic demister.

{Permitting note(s): Phosphoric Acid Plant No. 3 is regulated under NESHAP – 40 CFR 63, Subpart AA – National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants; and, Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). This emissions unit is also regulated under Rule 62-296.403, F.A.C., Phosphate Processing.}

The following conditions apply to the emissions unit(s) listed above:

C.1. Permitted Capacity

C.1.1. The production rate of the Phosphoric Acid Plant No. 3 shall not exceed 2,500 tons P_2O_5 per day. This product rate correlates to an equivalent P_2O_5 feed rate of approximately 2,688 tons per day.
[Rules 62-4.160(2) and 62-210.200, F.A.C., Definitions - (PTE); AC53-228026/PSD-FL-201]

C.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) C.2.** is based on the specified averaging time of the applicable test method.}*

C.2. Fluoride emissions from the Phosphoric Acid Train No. 3 scrubber stack shall not exceed 0.020 pounds per ton of equivalent P_2O_5 feed and 43 pounds per day.
[AC53-228026 / PSD-FL-201(BACT); 40 CFR 63.602(a)]

C.3. Not federally enforceable. All reasonable precautions shall be taken to minimize and control the generation of fugitive fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

C.4. Frequency of Compliance Testing. The permittee shall test the emissions from the Phosphoric Acid Train No. 3 scrubber stack for fluorides during each federal fiscal year, FFY (Oct 1 – Sep 30).
[Rule 62-297.310(7)(a)4., F.A.C.; 40 CFR 63.606(a)(1)]

C.5. Compliance with the emission limitations of **Condition C.2.** shall be determined using EPA Methods 1, 2, 4, 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Section 62-297, F.A.C.
[Rule 62-204.800(8)(b)26., F.A.C.; 40 CFR 60.204; and, Rule 62-297, F.A.C.]

Recordkeeping and Reporting Requirements

C.6. The permittee shall maintain a daily record of hours of operation and the equivalent P_2O_5 feed rate according to the procedure specified in 40 CFR 63.605(b)(1) - Monitoring requirements. Documentation as to how daily production rates were calculated shall be included as part of the records. This daily log shall be maintained at the facility and shall be made available to the Department upon request.
[40 CFR 63.605(b)(1)]

Other

C. 7. This emissions units is also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection D. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-053	Phosphoric Acid Clarification and Storage Area

The phosphoric acid clarification and storage area consists of the following:

3 - 30% acid tanks
3 - 40% acid clarifiers with aging tanks
1 - 40% acid storage tank
3 - 54% acid tanks
1 - East 54% ROP acid tanks
1 - West 54% ROP acid tanks
2 - 40% acid filters
1 - Centrifuge product tank

Emissions from the East and West 54% ROP tanks are passed through a common venturi pre-scrubber and then combined with emissions from the remaining areas and vented through a vertical packed bed scrubber which utilizes contaminated cooling pond water. The primary purpose of the scrubbers is to control fluoride emissions.
{Permitting note(s): This emission unit is regulated under Rule 62-296.403, F.A.C., Phosphate Processing.}

E.U. ID No.	Brief Description
-048	30% Clarification Area (Area 10)

The secondary phosphoric acid clarification system was originally designed to provide phosphoric acid clean-up prior to being processed in the uranium recovery system. The phosphoric acid clarification system provides clarification for a combination of approximately 30% phosphoric acid and approximately 40% sludge acid using a series of tanks for cooling and settling and two belt filters used for the removal of settled solids. Under a separate emissions unit, an ancillary feed system is available which can supply clay material which can be used to provide further phosphoric acid clean-up, if necessary. The original carbon columns used for filtration have been permanently by-passed and are not in service. The final product can be routed to the granulation plant directly or routed to the uranium recovery process area prior to the granulation plant.

The phosphoric acid input process rate is 265 tons per hour of 100% P_2O_5. Emissions are controlled by a packed bed scrubber.

{Permitting note(s): These emissions units are regulated under Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; and, Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD).}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

D.1.0. Permitted Capacity

D.1.1.a. The phosphoric acid feed rate from the phosphoric acid plants EU ID No. -053 shall not exceed 6,896 tons per day of P_2O_5.
b. The phosphoric acid input process rate for EU ID No. -048 shall not exceed 265 tons per hour of 100% P_2O_5.
[Rule 62-4.160(2), F.A.C.; and, Rule 62-210.200, F.A.C., Definitions - (PTE)]

D.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. For the purpose of testing, three trains shall operate for a clarification test with no rate requirement. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) D.2.** is based on the specified averaging time of the applicable test method.}*

D.2. a. **Not federally enforceable.** Fluoride emissions from the EU ID No. -053 scrubber stack shall not exceed 25 pounds per day.
{Fluoride limitation is more stringent than allowed by AC53-40085 and was set by agreement between the permittee and FDEP, 1/23/96.}

b. Fluoride emissions from the EU ID No. -053 scrubber stack shall not exceed 2.32 pounds per hour.
[AC53-40085]

c. Fluoride emissions from the EU ID No. -048 packed bed scrubber shall not exceed 0.28 pounds per hour.
[Best Available Control Technology (BACT) determination dated September 19, 1980 and Permit No. 1050059-052-AC]

D.3. Not federally enforceable. All reasonable precautions shall be taken to minimize and control the generation of fugitive fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

D.4. Frequency of Compliance Testing. Test for fluorides emissions from the packed bed scrubber per **Condition D.2.** during each federal fiscal year, FFY (Oct 1 – Sep 30).
[Rules 62-297.310(7)(a)4., F.A.C.]

D.5. Compliance with the emission limitations of **Condition D.2** shall be determined using EPA Methods 1, 2, 4, 5 and 13A or 13B as contained in 40 CFR 60, Appendix A and adopted by reference in Section 62-297, F.A.C.
[Rule 62-297, F.A.C.]

Other

D.6. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Recordkeeping and Reporting Requirements

D.7. In order to document compliance with the process rate limitation of **Condition D.1**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations.
[Rule 62-4.070(3), F.A.C.]

D.8. In order to provide reasonable assurance that the control equipment is operating properly, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum, the volumetric liquid flow rate, the gas pressure drop, the date and time of the measurements, and the person responsible for performing the measurements. A record log entry shall be made at least once for every 12 hour period that the secondary phosphoric acid clarification system operates.
[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

Monitoring and Recordkeeping of Operations

D.9. In order to provide reasonable assurance that the control equipment is operating properly, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum:

a. the water flow rate (gallons per minute),
b. the scrubber pressure drop (inches of water),
c. the date and time of the measurements,
d. the name of the person responsible for performing the measurements,
e. the hours of operation, and
f. the daily mass flow of phosphorous-bearing feed material to the process.

A record log entry shall be made at least once for every 12 hour period for each phosphoric acid plant that operates.

{NOTE: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.}
[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

D.10. In order to provide reasonable assurance, when the phosphoric acid plants are operating, the minimum scrubber pressure drop for the clarification scrubber shall be 2.0 inches of H_2O. The permittee shall comply with **Common Condition 18** for the waterflow rates.
[Rule 62-4.070(3), F.A.C.]

D.11. In order to provide reasonable assurance, when the 30% Clarification Area (Area 10) is operating, that the pollution control equipment (packed bed scrubber) is operating properly, the minimum pressure drop for the packed bed scrubber shall be 1 inch of H_2O. The permittee shall comply with **Common Condition 18** for the waterflow rate.
[Rule 62-4.070(3), F.A.C.]

Subsection E. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-009	DAP Plant No. 1

The Diammonium Phosphate (DAP) Plant No. 1 produces monoammonium phosphate (MAP) or diammonium phosphate (DAP) at a maximum rate of 150 tons/hour. The existing reactor has been repaired by replacing the top.

Particulate matter, fluoride and sulfur dioxide emissions at the DAP Plant No. 1 are generated from a reactor, granulator, dryer, cooler, and associated equipment. Emissions are controlled by three cyclones, one pre-scrubber, two (2) venturi/cyclonic scrubbers in parallel, and one final scrubber with an impact and cyclonic sprays. Equipment and controls are described in more detail below.

Emissions from the reactor and granulator are routed to the pre-scrubber, then to the R/G and Cooler Venturi/Cyclonic Scrubber. Emissions from the cooler are routed to its own dedicated cyclone, then to the R/G and Cooler Venturi/Cyclonic Scrubber. Emissions from associated equipment are routed to its own dedicated cyclone, then also to the R/G and Cooler Venturi/Cyclonic Scrubber.

Emissions from the dryer are routed to its own dedicated cyclone and then to the Dryer Venturi/Cyclonic Scrubber.

Emissions from the Dryer and the R/G and Cooler Venturi/Cyclonic Scrubbers are then routed to the final scrubber with impact sprays and eventually emitted to the atmosphere through a 133-foot tall main stack.

The venturi/cyclonic scrubbers use phosphoric acid. The final scrubber uses recirculating water.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.403, F.A.C., Phosphate Processing. This emissions unit accepted emission limits in order to qualify the entire facility to be exempt from PM RACT, Rule 62-296.700, F.A.C.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity

E.1.1.a. The operation rate shall not exceed 150 tons/hour of monoammonium phosphate (MAP) or diammonium phosphate (DAP) product.
b. The fuel heat input rate for the dryer shall not exceed 27.7 MMBtu/hour.
[Rule 62-4.160(2), F.A.C.; Rule 62-210.200, F.A.C., Definitions - (PTE); 1050059-013-AC; and, 1050059-029-AC]

E.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

E.2. Methods of Operation - Fuels. To control sulfur dioxide emissions from the DAP Plant No. 1 dryer, only natural gas shall be fired as a fuel. During periods of natural gas curtailments, No. 6 fuel oil or better grade fuel oil (as defined in Condition CC.16) may be fired as fuel.
[Rules 62-4.070(3) and 62-296.340(5)(c) (escape BART), F.A.C., Construction Permit 1050059-061-AC]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) E.3.-E.5.** are based on the specified averaging time of the applicable test method.}*

E.3. Fluoride (F) emissions from DAP Plant No. 1 shall not exceed 0.06 pounds/ton of P_2O_5 input and 2.92 pounds/hour {based on 48.7 tons P_2O_5/hour input feed}.
[40 CFR 63.622(a); Rule 62-296.403, F.A.C.; 1050059-013-AC; and, 1050059-029-AC]

E.4. Particulate matter (PM) emissions from DAP Plant No. 1 shall not exceed 15 pounds/hour. This particulate matter emission rate limitation qualified the facility to be exempt from PM RACT.
[Rule 62-296.700(2)(b), F.A.C.; Construction Permit 1050059-061-AC]

E.5. Visible emissions shall not be equal to or greater than 20% opacity.
[Rule 62-296.320(4)(b)1., F.A.C.; Construction Permits 1050059-013-AC and1050059-029-AC]

Test Methods and Procedures

E.6. Frequency of Compliance Testing. Test the No. 1 DAP Plant for visible emissions, particulates and fluorides emissions during each federal fiscal year, FFY (Oct 1-Sep 30).
[40 CFR 63.626(a)(1); Rule 62-297.310(7)(a)4., F.A.C.]

*{Permitting Note: Also, see **Condition CC.5.**}*

E.7. Compliance with the emission limitations of **Condition Nos. E.3, E.4,** and **E.5** shall be determined using EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C. The minimum sample volume for EPA Methods 13A or 13B shall be 30 dry standard cubic feet.
[Rules 62-297, and 62-296.403(3), F.A.C.;]

E.8.1. Compliance testing shall be conducted while firing oil, if oil of any type, has been used in the DAP Plant No. 1 dryer for a sum total of more than 400 hours from the previous test. If a test is

conducted while firing natural gas, and in the 12 month period following the test, oil of any type is burned for a sum total of more than 400 hours, then an additional visible emission test per **Condition.E.5.** shall be conducted, while burning in that source, within 30 days of having exceeded the 400 hour oil burning limit. A compliance test submitted using a better grade oil, other than No. 6 grade fuel oil, will automatically amend this operation permit to allow subsequent operation on only that better grade oil or a higher ranked oil, unless a compliance test is submitted based on any other allowable permitted oil within 30 days of fuel switching. In the event the curtailment ends, the dryer can be fired on oil for testing purposes after curtailment ends.
*{Permitting Note: Also, see **Conditions CC.**5 & 6.}*
[Rules 62-297.310(7)(a)5. and 62-4.070(3), F.A.C.]

E.8.2. Plant and scrubber system operating parameters shall be recorded during the compliance test. These must include the rates of process input {as P_2O_5} and production, along with the scrubber parameters. Failure to submit the operating parameters and production rates with the test report may fail to provide reasonable assurance of compliance and may invalidate the test.
{Permitting Note: Any variations in the emissions control system configuration must be reported to the Department and may require additional monitoring and recordkeeping during initial testing and subsequent operation.}
[1050059-029-AC; and, Rules 62-4.070(3) and 62-297.310(2), F.A.C.]

Monitoring Requirements

E.9. Raw material input to the plant shall be monitored continuously by a flow measurement device capable of measuring material flows with an accuracy of ± 5 percent over the normal operating range. Calibration of the device shall be performed prior to emissions testing.
[1050059-013-AC; and, 1050059-029-AC]

Recordkeeping and Reporting Requirements

E.10. A daily record log(s) shall be established and maintained to document, at a minimum, the following:

a. Each method of operation;
b. The daily equivalent P_2O_5 feed;
c. The daily production;
d. Hours of operation;
e. The quantity of natural gas or fuel oil utilized in the dryer;
f. The sulfur content (percent, by weight) of the fuel oil utilized in the dryer; and,
g. Daily average fuel heat input rate to the dryer (MMBtu/hr).

Daily records shall be completed within five (5) business days.
[Rules 62-213.410, F.A.C. and 62-4.070(3), F.A.C.]

Other

E.11. This emissions unit is also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection F. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-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

The DAP Plant No. 2 consists of two production trains, an East and West Train. Each Train produces monoammonium phosphate (MAP) or diammonium phosphate (DAP) at a maximum rate of 170 tons/hour {approximately 80 tons P_2O_5/hour input feed}. Particulate matter, fluoride and sulfur dioxide emissions from the DAP Plant No. 2 are controlled by two parallel control systems, each consisting of a venturi scrubber followed in series by a tailgas absorption scrubber. The tailgas {packed bed} scrubbers use process water. Exhaust gases from each scrubber control system, East and West Trains, are vented to the atmosphere through 171 foot high stacks. Equipment and controls are described in more detail below.

Emissions from the reactor/granulator discharge are pretreated by a prescrubber and then controlled by the R/G venturi scrubber followed by a tailgas scrubber.

Emissions from associated equipment, e.g., the recycle elevator discharge, the recycle conveyor and the dryer-to-screening elevator discharge, are all pretreated by two equipment cyclones and then controlled by the R/G venturi scrubber followed by a tailgas scrubber.

Each dryer is fired with natural gas at a maximum heat input rate of 36 MMBtu/hr, with No. 6 fuel oil {2.5% sulfur maximum} as an alternative fuel. Emissions from the dryer discharge are pretreated by four dryer cyclones and then controlled by the dryer venturi scrubber followed by a tailgas scrubber.

The DAP Plant No. 2 - West Product Cooler is used to cool product from only the DAP Plant No. 2 West Train. The cooler receives a maximum rate of 170 tons/hour {approximately 80 tons P_2O_5/hour input feed} and is designed to cool the product. Cooled product is discharged to the same product elevator used by DAP Plant No. 2 - East. Emissions from the cooler are controlled by two baghouses in parallel with a total average measured stack gas flow rate of 49,217 dscfm.

The DAP Plant No. 2 - East Product Cooler is used to cool product from only the DAP Plant No. 2 - East Train. The cooler receives a maximum rate of 170 tons/hour {approximately 80 tons P_2O_5/hour input feed} and is designed to cool the product. Cooled product is discharged to the same product elevator used by DAP Plant No. 2 - West Train. Emissions from the cooler are controlled by a four cluster cyclone which vents to a direct contact venturi scrubber. The scrubber is designed to use fresh water or pond water. The scrubber's liquid effluent is recirculated to the cooling pond.

{Permitting note(s): The Diammonium Phosphate (DAP) Plant No. 2 - East and West Trains, and DAP Plant No. 2 - East and West Product Coolers are regulated under NSPS 40 CFR 60, Subpart A - General Provisions, and 40 CFR 60, Subpart V - Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants, adopted and incorporated by

reference in Rule 62-204.800(8)(b)28., F.A.C. 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 62-296.403, F.A.C., Phosphate Processing.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

F.1.1. Permitted Capacity.
a. The operation rate for each train, East or West, shall not exceed 170 tons/hour of monoammonium phosphate (MAP) or diammonium phosphate (DAP) product {approximately 80 tons P_2O_5/hour input feed}.
b. The heat input rate for each dryer shall not exceed 36 MMBtu/hr.
[Rule 62-4.160(2), F.A.C.; Rule 62-210.200, F.A.C., Definitions - (PTE); and, 1050059-020-AC/PSD-FL-241]

F.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

F.2.1. Methods of Operation - MAP or DAP.
The DAP Plant No. 2 is authorized to produce MAP or DAP.
[Rule 62-213.410, F.A.C.; 1050059-020-AC]

F.2.2. Methods of Operation - Fuels. The DAP Plant No. 2 dryers shall be fired by natural gas, or No. 6 fuel oil with a maximum sulfur content not to exceed 2.5% sulfur by weight or better grade fuel oil {see **Condition CC.16**}. The maximum fuel heat input rate for each dryer shall not exceed 36 MMBtu/hour and 2.1 million gallons per year unless compliance with the emission limitations of **Condition F.4** have been demonstrated by stack test under conditions of higher heat input.
[BACT determination dated May 5, 1980; June 29, 1989 amendment to AC53-118671; and, 1050059-020-AC/PSD-FL-241]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) F.3.-F.9.** are based on the specified averaging time of the applicable test method.}*

F.3. Total fluoride (F) emissions from each train (i.e., East and West Train including East and West Product Coolers) of the DAP Plant No. 2 shall not exceed 3.34 lbs/ hour and 14.6 tons/year (TPY) based on 0.0417 lb F/ton of P_2O_5 input.

{Permitting Note: Fluoride emission limits include cooler emissions.}
[Rule 62-212.410, F.A.C.; and, 1050059-020-AC/PSD-FL-241]

F.4. Particulate matter (PM) emissions from the reactor/granulator/dryer stack for each train shall not exceed 6.40 pounds/hour and 28.0 TPY based on 0.08 lb PM/ton of P_2O_5 input.
[Rule 62-212.410, F.A.C.; and, 1050059-020-AC/PSD-FL-241]

F.5. Particulate matter (PM) emissions from the East Train cooler stack shall not exceed 6.06 lbs/hour and 26.5 TPY based on 0.011 gr/scf and 64,300 scfm.
[Rule 62-212.410, F.A.C.; and, 1050059-020-AC/PSD-FL-241]

F.6. Particulate matter (PM) emissions from the West Train cooler stack shall not exceed 4.22 lbs/hour and 8.5 TPY based on 0.010 gr/scf and 49,200 scfm.
[Rule 62-212.410, F.A.C.; and, 1050059-020-AC/PSD-FL-241]

F.7. Visible emissions (VE) from the West Train cooler stack shall not exceed 5% opacity. Visible emissions from all scrubber stacks shall not exceed 15% opacity.
[Rule 62-212.410, F.A.C.; and, 1050059-020-AC/PSD-FL-241]

F.8. Sulfur dioxide (SO_2) emissions from the reactor/granulator/dryer stack of each train shall not exceed 22.0 pounds/hour and 87.0 TPY.
[BACT (Best Available Control Technology) determination dated May 5, 1980 for AC53-23456, 1050059-020-AC/PSD-FL-241]

F.9. Nitrogen oxides (NO_x) emissions from the reactor/granulator/dryer stack of each train shall not exceed 12.6 pounds/hour and 55.2 TPY.
[BACT determination of April 27, 1987 for AC53-118671, 1050059-020-AC/PSD-FL-241]

Test Methods and Procedures

F.10. Frequency of Compliance Testing. The permittee shall test the emissions from the DAP Plant No. 2 (East and West Train) scrubber stacks for the following pollutants during each federal fiscal year, FFY (Oct 1 – Sep 30):

a. Particulate Matter;
b. Fluorides;
c. Sulfur dioxide (SO_2) {Also, see **Conditions F.15. and F.16.**};
d. Nitrogen oxides (NO_x) {Also, see **Condition F.15.**}; and,
e. Visible emissions.

{*Permitting Note: Also, see **Condition CC.5.**}*
[40 CFR 63.626(a); Rule 62-297.310(7)(a)4., F.A.C.]

F.11. Frequency of Compliance Testing. The DAP Plant No. 2 West Product Cooler shall be tested for:

a. Visible emissions during each FFY (Oct 1 – Sep 30); and,
b. Fluorides every 5 years.

*{Permitting Note: Also, see **Condition CC.5.**}*
[Rules 62-297.310(7)(a)3, and 62-297.310(7)(a)4, F.A.C.]

F.12. Frequency of Compliance Testing. The DAP Plant No. 2 East Product Cooler shall be tested for particulate matter, fluorides, and visible emissions during each FFY (Oct 1 – Sep 30).
*{Permitting Note: Also, see **Condition CC.5.**}*
[63.626(a)(1); Rule 62-297.310(7)(a)4., F.A.C.]

F.13. If a compliance test is conducted on the DAP Plant No. 2 East Product Cooler when only fresh water is used for scrubber water, a new compliance test shall be required when the scrubber has operated more than 10 days during a calendar year with pond water.
[AC53-177264]

F.14. Compliance with the emission limitations of **Conditions F.3., F.4., F.5., F.6., F.7., F.8.** and **F.9.** shall be determined using EPA Methods 1, 2, 3, 4, 5, 6, 6B, 7, 7E, 9 and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C., or other methods approved by the Department.
[Rules 62-297 & 62-204.800(8)(b)28., F.A.C. and 40 CFR 60.224]

F.15. Compliance testing shall be conducted while firing No. 6 fuel oil, if No. 6 fuel oil, has been used in the DAP Plant No. 2 dryers for a sum total of more than 400 hours from the previous test. If a test is conducted while firing natural gas, and in the 12 month period following the test, No. 6 fuel oil is burned for a sum total of more than 400 hours, then additional emissions tests per **Condition F.10.** shall be conducted, while burning oil in that source, within 30 days of having exceeded the 400 hour oil burning limit. Annual testing requirements per this Condition can be modified and/or waived under the following conditions:

a. The DAP Plant No. 2 dryers may be tested using natural gas and the sulfur dioxide testing requirement of Condition G.10 is waived if, since the date of the last annual test, except for fuel oil that was utilized for normal periods of start-up, the fuel oil usage in the dryer during normal production operations did not exceed 400 hours. The test report shall include a statement certifying that the conditions of the option have been satisfied.
b. The annual sulfur dioxide testing requirement and the annual nitrogen oxides testing requirement are waived for the DAP II dryers if the dryers, operating in a normal production mode, except for fuel oil that was utilized for normal periods of start-up, utilized less than 36 Therms per hour of natural gas, exclusively, or utilized less than 24 gallons per hour of fuel oil, exclusively, or the heat input rate was less than 3.6 MMBtu/hour from the equivalent combination of natural gas and fuel oil for the 30 day period (monthly average) just prior to the scheduled test.

If any of the above testing options a. or b. are exercised, the test report shall include a statement certifying that the conditions of the option have been satisfied.
*{Permitting Note: Also, see **Condition CC.5.**}*
[Rules 62-297.310(7)(a)4, 62-297.310(7)(a)5, and 62-297.310(8)(c), F.A.C.]

F.16. If testing is conducted while firing No. 6 fuel oil in the dryer, compliance with the sulfur content requirement of Condition G.2 shall be demonstrated during the test by submitting either of the following with the test report:

a. A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
b. A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.

[Rule 62-4.070(3), F.A.C.]

Monitoring of Operations

F. 17. In order to provide reasonable assurance, when the DAP II Plant (East and West Trains, and East Product Cooler) is operating, that the pollution control equipment is operating properly, the permittee shall comply with Common Condition 18.
[Rule 62-4.070(3), F.A.C.]

F.18. The DAP Plant No. 2 East Product Cooler shall continuously measure and permanently record the scrubber's recirculating water flow rate {gpm}.
[AC53-177264]

F. 19. All venturi scrubbers for each train shall be operated at a minimum pressure drop of 15 inches water gauge {w.c.}.
[1050059-020-AC/PSD-FL-241, January 21, 1998]

F. 20. The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The monitoring device shall have an accuracy of ± 5 percent over its operating range.
[Rule 62-296.800(8)(b)28., F.A.C.; 40 CFR 60.223(a)]

F.21. The permittee shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the scrubbing system. The monitoring device shall have an accuracy of ± 5 percent over its operating range. {Permitting Note: The West Train cooler is not subject to **Condition F.24** since emissions from DAP Plant No. 2 West Product Cooler are controlled by baghouse and not a scrubber.}
[Rule 62-296.800(8)(b)28., F.A.C.; 40 CFR 60.223(c)]

F.22. In order to demonstrate compliance with Rule 62-210.650, F.A.C., the permittee shall record the pressure drop across the DAP Plant No. 2 West Product Cooler baghouse daily.
[1050059-014-AV and, Rule 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

F. 23. In order to document continuing compliance with the maximum sulfur content requirement of **Condition F.2**., the permittee shall maintain a record of the sulfur content and amount of all No. 6 fuel oil received for use in the DAP II Plant dryers. These records may be based on vendor supplied information or analysis of samples taken by the permittee.
[Rule 62-4.070(3), F.A.C.]

F. 24. In order to document compliance with the rate limitation of **Condition F.1.**, the permittee shall maintain daily records of the amount of material processed, amount of fuels used and the total hours of process operations as stated in **Condition F.26.**
[1050059-014-AV and, Rule 62-4.070(3), F.A.C.]

F. 25. The permittee shall maintain a daily record of the hours of operation and equivalent P_2O_5 feed rate by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using the flow monitoring device meeting the requirements of 40 CFR 60.223(a) and then by proceeding according to 40 CFR 60.224(b)(3).
[Rule 62-296.800(8)(b)28., F.A.C.; 40 CFR 60.223(b); and, Rule 62-4.070(3), F.A.C.]

Reasonable Assurances

F. 26. All reasonable precautions shall be taken to minimize and control the generation of fugitive particulate and fluoride emissions.
[1050059-014-AV and, Rule 62-4.070(3), F.A.C.]

NSPS 40 CFR 60, Subpart A –General Provisions

F.27. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A - General Provisions** attached to this permit.
[Rule 62-204.800(8)(a), (c), (d) & (e), F.A.C.]

NSPS 40 CFR 60, Subpart V

F.28. The NSPS emissions units shall comply with NSPS 40 CFR 60, Subpart V - Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants, adopted and incorporated by reference.
[Rule 62-204.800(8)(b)28., F.A.C.]

Other

F. 29. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection G. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-011	MAP Prill Plant
-055	MAP Plant Cooler

The prill tower located at the MAP Plant produces 50 tons per hour (1200 tons per day) of MAP (mono-ammonium phosphate). Emissions from the prill tower are vented through a venturi scrubber then through a cyclonic demister to control fluorides and particulate matter.

A rotary cooler and a product elevator are located at the MAP Plant. The MAP Plant produces 50 tons per hour (1200 tons per day) of MAP (mono-ammonium phosphate). Emissions from the MAP rotary cooler are vented through a cyclone and then to a 30,000 acfm baghouse collector to control particulate matter. Particulate emissions from the MAP product elevator are also controlled by the above baghouse collector.

{Permitting note(s): 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).}

The following conditions apply to the emissions unit(s) listed above:

G.1.0. Permitted Capacity.
The MAP production rate shall not exceed 50 tons per hour.
[Rule 62-4.160(2), F.A.C.; and, Rule 62-210.200, F.A.C., Definitions - (PTE)]

G.1.1. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) G.2.-G.3.** are based on the specified averaging time of the applicable test method.}*

G.2. Emissions from the MAP prill tower scrubber stack shall be limited to the following:
a) Particulate matter emissions shall not exceed 7.5 pounds/hour,
b) Fluoride emissions shall not exceed 0.83 pounds/hour; and,
c) Visible emissions shall not exceed 20% opacity (6-minute average basis).
[Pursuant to the BACT Determination issued July 9, 1980, AC53-3125, and 1050059-061-AC]

G.3. Emissions from the MAP cooler bag collector shall be limited to the following:
a) Particulate emissions shall not exceed 0.02 gr/dscf (4 lbs/hr estimated); and,
b) Visible emissions shall not exceed 5% opacity (6-minute average basis).
[Pursuant to the BACT Determination issued July 9, 1980, AC53-3125]

Monitoring of Operations

G.4. In order to demonstrate compliance with Rule 62-210.650, the permittee shall record the pressure drop across the baghouse daily.
[Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

G.5. Frequency of Compliance Testing. Test the emissions from the prill tower scrubber stack for the following pollutants during each FFY (Oct 1 – Sep 30):

a. Particulate Matter;
b. Visible emissions (Opacity); and,
c. Fluoride.

[40 CFR 63.626(a)(1); Rule 62-297.310(7)(a)4., F.A.C.]

G.6. Frequency of Compliance Testing. Test the emissions from the baghouse exhaust for visible emissions during each FFY (Oct 1 – Sep 30).
{Permitting Notes: Pursuant to Rule 62-297.620(4), F.A.C., because this source is equipped with a baghouse, the VE test is also submitted in lieu of particulate testing.}
[Rule 62-297.310(7)(a)4., F.A.C.]

G.7. Compliance with the emission limitations of **Conditions G.2.** and **G.3.** shall be determined using EPA Methods 1, 2, 4, 5, 9 and 13A or 13B as contained in 40 CFR 60, Appendix A and adopted by reference in Section 62-297, F.A.C.
[Rule 62-297, F.A.C.]

Recordkeeping and Reporting Requirements

G.8. In order to document compliance with the rate limitation of **Condition.G.1**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations.
{NOTE: The MAP Plant Cooler process rate is dependent on the MAP production rate. The recording of the amount of material processed and total hours of process operations for the MAP Plant should suffice for the MAP Plant Cooler.}
[40 CFR 63.627(b) and (c); Rule 62-4.070(3), F.A.C.]

G.9. The permittee shall create and keep a daily record log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, the gas pressure drop (inches of water), the date and time of the measurements, and the person responsible for performing the measurements.
[Rule 62-4.070(3), F.A.C.]

Reasonable Assurances

G.10. All reasonable precautions shall be taken to minimize and control the generation of fugitive particulate and fluoride emissions.
[Rule 62-4.070(3), F.A.C.]

Other

G.11. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection H. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-015	Animal Feed Ingredient Shipping/Truck Loadout
-023	Animal Feed Ingredient Storage Silos (3)--North Side
-024	Animal Feed Ingredient Storage/Shipping/Railcar Loadout
-025	Animal Feed Ingredient --(2) Limestone Storage Silos
-026	Animal Feed Ingredient --Silica Storage Bin
-028	Animal Feed Ingredient Storage Silos (3)--South Side
-052	Animal Feed Ingredient --Limestone Feed Bin

Animal Feed Ingredient (AFI) Truck Loadout System (-015)
The animal feed ingredient (AFI) product in the truck loadout system is conveyed via the product loadout feed conveyor from either the product storage silos or a hopper in a storage building which is loaded by a payloader. The product then passes through product screens and is conveyed either to one of three truck loading bins, to the bagging bin, or to the railcar loadout conveyor. Trucks are loaded from underneath the truck loading bins by truck loading chutes. Bags are loaded from the product bagging bin in the bagging area. Actual operation of the system is on a batch basis with a conveyor feed rate of 200 tons per hour and an average truck loading rate of 60 tons per hour. Particulate matter emissions from all the above transfer operations are controlled by a bag collector rated at 8,000 ACFM.

AFI Storage Silos North Side and South Side (-023 & -028)
There are six 2,000 ton (each) capacity AFI (animal feed ingredient) storage silos (A, B, C, D, E, and F). These silos, used for the storage of calcium based ingredients, are grouped into two sets of three silos. The silo transfer rate is 120 tons per hour.

Particulate matter emissions from the transfer operations are controlled for each set of three silos by a separate bin vent type bag collector mounted on the center silo. The three silos of each set are joined by openings through the common wall with the center silo. This allows air flow to the collector during transfer of material into each one of the silos. Silos A, C and E (northernmost row of silos) are controlled by a bag collector (Baghouse A) mounted on silo C. Silos B, D and F (southernmost row of silos) are controlled by a bag collector (Baghouse B) mounted on silo D. The airflow for each collector is 1,600 ACFM.

AFI Railcar Loadout System (-024)
The AFI product in the railcar loadout system is conveyed to the railcar loading bin from the truck loadout area by the railcar loadout conveyor. Railcars are loaded from underneath the railcar loading bin by one of four railcar loading chutes. Actual operation of the system is on a batch basis with a conveyor feed rate of 200 tons per hour and an average railcar loading rate of 90 tons per hour. Particulate matter emissions from the above transfer operations are controlled by a bag collector rated at 6,600 ACFM.

AFI Limestone Storage Silos A & B (-025)
The AFI limestone storage silos (A & B) are loaded pneumatically from delivery trucks at a transfer rate of 80 tons per hour (when two trucks are unloaded simultaneously). The silos are joined by an opening through their common wall. This allows air flow to the collector during

transfer of material into either one of the silos. Particulate matter emission from the transfer operations are controlled by a bag collector (mounted on silo B) rated at 6,000 ACFM.

AFI Silica Storage Bin (-026)
Silica is unloaded from railcars, trucks or bags (primarily railcars) by a pneumatic system used to vacuum the material out and transfer it to the silica storage bin. The maximum removal rate is 10 tons per hour (taking into account the time required to reposition the system in the car the actual average unloading rate is 3 tons per hour). From the storage bin, the silica is sent to the silica slurry tank. As an unloading alternative, a station also exists that allows the silica to be slurried directly to the silica slurry tank. Particulate matter emissions from unloading operations are controlled by a filter/receiver (rated at 1,500 ACFM) mounted on top of the silica storage bin.

AFI Limestone Feed Bin (-052)
The AFI limestone feed bin is used as an intermediate storage step in the AFI production process. Limestone is transferred to the feed bin pneumatically from the limestone storage silos at a rate of 75 tons per hour. From the feed bin the limestone is transferred to the production process via a feed conveyor. Particulate matter emission from the transfer operations are controlled by a bag collector rated at 1,600 ACFM.

{Permitting note(s): These emissions units are regulated under Rule 62-296.700, F.A.C., RACT Particulate Matter.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

H.1.1. Permitted Capacity.
a. The AFI product transfer rate for truck and railcar loadout shall not exceed 200 tons per hour.
b. The AFI product storage silo transfer rate shall not exceed 120 tons per hour for each set of three linked silos (North and South Side). (see Condition**.I.1**)
c. The limestone transfer rate shall not exceed 80 tons per hour for the AFI limestone storage silos.
d. The limestone transfer rate shall not exceed 75 tons per hour for the AFI limestone feed bin.
e. The silica storage bin transfer rate shall not exceed 10.0 tons per hour.
[Rule 62-4.160(2), F.A.C.; and, Rule 62-210.200, F.A.C., Definitions - (PTE)]

H.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) H.2.-H.3.** are based on the specified averaging time of the applicable test method.}*

H.2. Particulate Matter (PM) emissions from these emission units shall not exceed the following rates listed below:

Point ID.	Brief Description	Particulate Matter (PM) Limit, lbs/hr
-015	Animal Feed Ingredients Shipping/Truck Loadout	3.6
-023	Animal Feed Ingredients Storage Silos (3)--North Side	4.75
-024	Animal Feed Ingredients Storage/Shipping/Railcar Loadout	3.6
-025	Animal Feed Ingredients --(2) Limestone Storage Silos	3.6
-026	Animal Feed Ingredients --Silica Storage Bin	1.6
-028	Animal Feed Ingredients Storage Silos (3)--South Side	4.75
-052	Animal Feed Ingredients --Limestone Feed Bin	3.6

[AC53-23546 (DAP Plants) and subsequent AFI truck and railcar loadout operation permit amendments dated November 18, 1981 and requested by the permittee to avoid PM-RACT in accordance with 62-296.700(2)(b), F.A.C.]

H.3. Visible emissions from any of these emissions units shall not be equal to or greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

Test Methods and Procedures

H.4. Frequency of Compliance Testing. The permittee shall test the emissions from the AFI product truck and railcar loadout baghouses; the AFI product storage silo baghouses; the AFI limestone storage silo and AFI limestone feed bin baghouses; and the silica unloading and storage baghouse for the following pollutants as shown below:

E.U. I.D.	Description	Opacity Test Interval	Particulate Matter Test Interval
-015	Animal Feed Ingredients Shipping/Truck Loadout	Annual	Five Years
-023	Animal Feed Ingredients Storage Silos (3)--North Side	Annual	Five Years
-024	Animal Feed Ingredients Storage/Shipping/Railcar Loadout	Annual	Five Years
-025	Animal Feed Ingredients --(2)	Annual	Five Years

	Limestone Storage Silos		
-026	Animal Feed Ingredients -- Silica Storage Bin	Annual	Five Years
-028	Animal Feed Ingredients Storage Silos (3)--South Side	Annual	Five Years
-052	Animal Feed Ingredients -- Limestone Feed Bin	Annual	Five Years

[Rules 62-297.310(7)(a)3., and 62-297.310(7)(a)4., F.A.C.]

H.5. Compliance with the visible and particulate emission limitations of **Conditions H.2** and **H.3** shall be determined using EPA Methods 1, 2, 4, 5 and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C.
[Rule 62-297, F.A.C.]

Monitoring of Operations

H.6. In order to demonstrate compliance with Rule 62-210.650, the permittee shall record the pressure drop across the baghouse daily.
[Rule 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

H.7. In order to document compliance with the rate limitations of **Condition H.1.**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations*.

*{NOTES: The AFI product storage silo transfer rate (North and South Side silos) is dependent on the AFI production rate. The recording of the amount of material processed and total hours of process operations for the AFI Granulation Plant (See Condition **I.11.**) should suffice for the AFI product storage silos. *Engineering estimates may be used to estimate these parameters.}*
[Rule 62-4.070(3), F.A.C.]

H.8. The permittee shall create and keep a daily record log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, the gas pressure drop (inches of water), the date and time of the measurements, and the person responsible for performing the measurements.
[Rule 62-4.070(3), F.A.C.]

Other

H.9. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection I. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-027	Animal Feed Ingredient Granulation Plant

The Animal Feed Ingredient (AFI) Granulation Plant produces 120 tons/hour of animal feed. Emissions are generated from the reactor, pug mill, granulator, dryer, screening system and cooler. The dryer is fired with natural gas or new, No. 6 fuel oil or better grade fuel oil if natural gas is curtailed at a fuel heat input rate of 135 MMBtu/hr. Particulate matter emissions are controlled by 4 venturi scrubbers and 3 cyclones. All emissions vent through one stack.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.700, F.A.C., RACT Particulate Matter.}

The following conditions apply to the emissions unit(s) listed above:

I.1.0. Permitted Capacity.
a. The process/operation rate shall not exceed 120 tons per hour of animal feed ingredients.
b. The maximum fuel heat input rate for the dryer is 135 MMBtu/hour.
[Rule 62-4.160(2), F.A.C.; and, Rule 62-210.200, F.A.C., Definitions - (PTE)]

I.1.1. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

I.2. Methods of Operation - Fuels.
The dryer shall be fired with only natural gas as fuel. During periods of natural gas curtailment, No. 6 fuel oil, or better grade fuel oil (See **Condition CC**16.) may be fired as fuel.
[Rule 62-213.410, F.A.C.; 1050059-061-AC (BART)]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) I.3.-I.4.** are based on the specified averaging time of the applicable test method.}*

I.3. The maximum allowable particulate matter emission rate from this plant shall not exceed 36.8 pounds/hour.
[Requested by the permittee to avoid PM-RACT in accordance with Rule 62-296.700(2)(b), F.A.C.]

I.4. Visible emissions shall not be equal to or greater than 20% opacity from the stack.
[Rule 62-296.320(4)(b), F.A.C.]

Test Methods and Procedures

I.5. Frequency of Compliance Testing. Test the stack's emissions for the following pollutant(s) during each FFY (Oct 1 – Sep 30):

a. Particulate Matter; and,
b. Opacity.

[Rule 62-297.310(7)(a)4., F.A.C.]

I.6. Compliance with the emission limitations of **Condition I.3** shall be determined using EPA Methods 1, 2, 3, 4, and 5 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297, F.A.C.
[Rule 62-297, F.A.C.]

I.7. Compliance with the visible emission limitations under **Condition I.4.** shall be determined using DEP Method 9 and shall be conducted by a certified observer and be a minimum of 60 minutes in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.
[Rule 62-297, F.A.C.]

Monitoring of Operations

I.8. In order to provide reasonable assurance, when the AFI Granulation Plant is operating, that the pollution control system is operating properly, the permittee shall comply with **Common Condition 18.**
[Rule 62-4.070(3), F.A.C.]

Recordkeeping and Reporting Requirements

I.9. In order to provide reasonable assurance that the control equipment is operating properly, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum, the volumetric liquid flow rate, the gas pressure drop, the date and time of the measurements, and the person responsible for performing the measurements. A record log entry shall be made at least once for every 12 hour period that the AFI Granulation Plant operates.
[Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

I.10. In order to document compliance with the rate limitation of **Condition I.1.**, the permittee shall maintain daily records of the amount of material processed, fuels used and the total hours of process operations.
[Rule 62-4.070(3), F.A.C.]

Other

I.11. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection J. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-030	Multifos Soda Ash Rail Hopper Car Unloading System
-031	Multifos Soda Ash Conveying System
-032	Multifos "A" Kiln Cooler
-033	Multifos "B" Kiln Cooler
-034	Multifos A and B Kilns Milling and Sizing System--West Baghouse
-035	Multifos A and B Kilns Milling and Sizing System--East Baghouse
-036	Multifos A and B Kilns, Dryer and Blending Operation
-038	Multifos A and B Kilns Milling and Sizing System--Surge Bin
-074	Multifos C Kiln
-075	Multifos Kiln C Cooler Baghouse
-076	Multifos Kiln C Milling & Sizing Baghouse

The Multifos Production Plant consists of a Mixed Feed Preparation Area (Section), three defluorination kilns designated as Kiln 'A' (North), Kiln 'B' (South), and Kiln 'C' followed by coolers and milling/sizing consisting of crushers, screens, mills for final product preparation. Each kiln is capable of being fired by either natural gas or fuel oil.

The Mixed Feed Preparation Area (Section) consists of a wet phosphate rock storage bin, a phosphate rock dryer with a nominal operating rate of 50 TPH, phosphoric acid tanks, a soda ash storage bin, a dry phosphate rock storage bin, a pug mill, and a storage building.

At the Mixed Feed Preparation Area (Section) the phosphate rock dryer, fired with either natural gas or No. 6 fuel oil, processes wet phosphate rock. The dried phosphate rock is normally stored in a hopper prior to the blending operation in the pug mill. The dried phosphate rock is combined with soda ash and phosphoric acid in a pug mill. The mixed feed is then sent to the mixed feed storage building. The soda ash unloading and conveying system supplies the blending operation. From storage, the mixed feed is transferred to the common kiln feed conveyor system.

Emissions from the dryer and the pug mill, are controlled be a venturi and packed bed scrubber referred to as the 'Equipment Scrubber'. Emissions from the soda ash system are controlled by individual bag collectors. Emissions from Kilns A and B are controlled by two separate packed bed scrubbers referred to as the 'A Scrubber' and the 'B Scrubber'. The three scrubber systems are connected to a common stack. Kiln C emissions are controlled by two packed bed scrubbers in series referred to as the 'C Scrubber' and the 'SO_2 Scrubber'. Emissions from the coolers and milling/sizing operations are controlled by bag collectors. Fugitive emissions generated from the product storage building and associated transfer conveyors are controlled by the addition of a dust suppressant material prior to the storage building transfer conveyor.

{Permitting note(s): These emissions unit are now regulated under Rule 62-212, F.A.C., superseding previously applicable Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; Rule 62-296.403, F.A.C., Phosphate Processing; and Rule 62-296.700,

F.A.C., RACT Particulate Matter. The emission limits for the entire plant are established in a PSD Permit, PSD-FL-244, 1050059-024-AC issued 9/11/98 and amended by 1050059-044-AC.}
{Permitting Note(s): Permit No. 1050059-044-AC was a synthetic minor source permit for the expansion/modification of the Multifos Plant by constructing a 17 TPH kiln (Kiln C), pug mill, cooler, crusher, screens, mills and associated processing and air pollution control equipment. This permit allowed an expansion to increase the capacity of the existing 30 tons per hour plant to 47 tons per hour by installing a new kiln and higher capacity mixing equipment to prepare the feed material for all three kilns. This permit supersedes all conditions of Permit No. 1050059-024-AC/PSD-FL-244 that are applicable to Kiln C. However, Permit No. 1050059-024-AC shall continue to apply to the common feed preparation section and other sections of the Multifos Plant and Kilns A and B. Permit No. 1050059-024-AC contains conditions and requirements that resolve past permitting issues applicable to the rest of the Multifos facility that would otherwise have triggered PSD review had those issues been addressed prior to the issuance of PSD-FL-244.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

J.1. Permitted Capacity

J.1.1.:

a. The input rate of the mixed feed preparation section of the Multifos Plant (includes all equipment for processing and storing mixed feed) shall not exceed 100 tons per hour of raw materials.

b. The total annual production rate of Kilns A & B combined shall not exceed 140,000 tons of multifos.

c. The total annual input rate to Kiln C shall not exceed 148,920 tons of mixed feed[1].

d. The process input rate to Kiln A shall not exceed 15 tons per hour (5.7 tons P_2O_5 per hour).

e. The process input rate to Kiln B shall not exceed 15 tons per hour (5.7 tons P_2O_5 per hour).

f. The process input rate to Kiln C shall not exceed 17 tons per hour (6.5 tons P_2O_5 per hour) of mixed feed[1].

g. The process rate to product handling operations shall not exceed 75 tons per hour.

h. The maximum heat input rate to the dryer shall not exceed 15 MMBtu per hour.

i. The maximum heat input rate for each of the kilns shall not exceed 56 MMBtu per hour.

j. The process rate for the Multifos Soda Ash Unloading System shall not exceed 12.5 tons per hour of soda ash.

k. The process rate for the Multifos Soda Ash Conveying System shall not exceed 10.0 tons per hour of soda ash.

[Rule 62-4.160(2), F.A.C., Rule 62-210.200, F.A.C., Definitions - (PTE); 1050059-024-AC/PSD-FL-244 and [1]Permit No. 1050059-044-AC]

J.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

J.2. Methods of Operation - Fuels. The fuels burned shall be limited to those shown below:

a. Dryer
   1. natural gas; or
   2. No. 6 fuel oil, or better grade fuel oil (See **Condition No. 16**).
   3. Annual fuel oil usage shall not exceed 50% of natural gas usage on an equivalent heat content basis unless gas curtailment forces greater usage of oil.

b. Kilns A & B
   1. natural gas; or
   2. on-specification used oil[(1)] (generated on-site, only, see **Condition J.3**); or
   3. No. 6 fuel oil, or better grade fuel oil (See **Condition CC. 16**).
   4. Annual fuel oil usage shall not exceed 50% of natural gas usage on an equivalent heat content basis unless gas curtailment forces greater usage of oil.

c. Kiln C[3]
   1. natural gas, unless it is not available;
   2. then only new No. 2 fuel oil with a maximum sulfur content of 0.5% (wt.) fired for up to 1,225 hours per year.

(1) "On-Specification" Used Oil
"On-specification" used oil is defined as used oil that meets all of the requirements in **Conditions J.3** and **J.15** in this permit. Used oil that does not meet all the requirements of **Conditions J.3** and **J.15** in this permit is defined as "off-specification" used oil and shall not be burned.
[Rule 62-213.410, F.A.C.; and, AC53-267287 and 1050059-024-AC/PSD-FL-244; [3]Permit No. 1050059-044-AC.]

J.3. The used oil (generated on-site, only) to be fired in the kilns shall meet the following on-specification used oil requirements:

Constituent/Property	Allowable
Cadmium	2 ppm maximum
Arsenic	5 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000*/4000 ppm maximum
Polychlorinated Biphenyls(PCB's)	less than 50 ppm
Flash Point	100^0 F minimum

* Levels over 1000 ppm require additional testing (ref. 40 CFR 279.11).
[AC53-267287, Rules 62-710.210 and 62-4.070(3), F.A.C.; 40 CFR 761 & 279]

J.4. Contaminated Soils and Absorbent Material. For disposal purposes, petroleum contaminated soils and absorbent materials from the clean up of minor spills from the unloading of petroleum products at the New Wales facility, only, may be added to the Multifos feed to the kilns. The total quantity of contaminated soil and absorbent materials that may be disposed of in this manner shall not exceed thirty, 55 gallon capacity drums (220 ft^3) per week. Each kiln designated to receive petroleum contaminated soil shall be operating

normally at a minimum feed rate of 8 tons per hour when the contaminated soil and absorbent material is added.
[Permit No. 1050059-044-AC and Permit AO53-206083 Amendment, June 23, 1994]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) J.5.-J.9.** are based on the specified averaging time of the applicable test method.}*
J.5. Particulate Matter (PM) emissions from these emission units shall not exceed the following rates listed below.

E.U. I.D.	Brief Description	Particulate Matter (PM) lbs/hr	TPY
-036	Multifos A and B Kilns, Dryer and Blending Operation	29.83[1]	
		PM/PM_{10}	
-074	Multifos C Kiln	5.68[3]	24.90[3]
		PM_{10}	
		3.40[3]	14.90[3]

[1]This particulate matter emission rate limitation qualifies the facility for the PM-RACT exemption per Rule 62-296.700(2)(b), F.A.C.
[Permits AC53-267287, 1050059-024-AC/PSD-FL-244 and [3]Permit No. 1050059-044-AC; and, Rules 62-296.320(4)(b) and 62-296.700(2)(b), F.A.C.]

J.6. Visible emissions (VE) from these emissions units shall not exceed the following rates listed below.

E.U. I.D.	Brief Description	Opacity Limit (percent)
-030	Multifos Soda Ash Rail Hopper Car Unloading System	20
-031	Multifos Soda Ash Conveying System	20
-032	Multifos "A" Kiln Cooler	20
-033	Multifos "B" Kiln Cooler	20
-034	Multifos A and B Kilns Milling and Sizing System --West Baghouse	20
-035	Multifos A and B Kilns Milling and Sizing System --East Baghouse	20
-036	Multifos A and B Kilns, Dryer and Blending Operation	20
-038	Multifos A and B Kilns Milling and Sizing System --Surge Bin	20
-074	Multifos C Kiln	15[1, 3]
-075	Multifos Kiln C Cooler Baghouse	5[1, 3]
-076	Multifos Kiln C Milling & Sizing Baghouse	5[1, 3]

[1]BACT Determination, September 10, 1998.
[3]Permit No. 1050059-044-AC.
[Permits AC53-267287, 1050059-024-AC/PSD-FL-244 and 1050059-044-AC; and, Rule 62-296.320(4)(b), F.A.C.]

J.7. The fluoride (F) emission rate from the stack common to the Multifos Production Plant dryer, batch blending operation, kiln 'A' and kiln 'B' scrubbers shall not exceed 4.2 pounds per hour as fluorides (water soluble or gaseous atomic weight 19). At a total, combined input rate to the kilns of less than 11.35 tons per hour 100% P_2O_5 (approximately 30 tons per hour input rate), the maximum allowable fluoride emission rate is 0.37 pounds per ton 100% P_2O_5 input.
[Permit AC53-267287 and Rule 62-296.403(1)(h), F.A.C.]

J.8. The fluoride (F) emission rate from the Multifos Production Plant Kiln 'C' scrubber shall not exceed 0.66 pounds per hour as fluorides (water soluble or gaseous atomic weight 19) and 2.90 TPY.
[1050059-044-AC]

J.9.0. The sulfur dioxide (SO_2) emission rate from the Multifos Production Plant Kiln 'C' scrubber shall not exceed 9.11 pounds per hour and 39.90 TPY.
[1050059-044-AC /PSD-FL-244]

J.9.1. The nitrogen oxides (NOx) emission rate from the Multifos Production Plant Kiln 'C' scrubber shall not exceed 9.11 pounds per hour and 39.90 TPY.
[1050059-044-AC /PSD-FL-244]

Monitoring of Operations

J.10. To prevent recovered SO_2 from being stripped out of acidic pond water that may be recirculated to other scrubbers, no effluent from caustic scrubbing shall be discharged to the existing process water pond system or any other acidic waste water that can be recirculated to any scrubber. Spent caustic solution from the Kiln C scrubbing system shall be routed to the scrubbing systems for Kilns A and B. The 50% caustic makeup flow to the Kiln C caustic scrubber shall be measured and recorded by an inline totalizing flowmeter with certified accuracy of ± 5%. The disposition of caustic scrubber effluent shall be in accordance with the applicant's letter dated June 16, 1999.
[1050059-024-AC/PSD-FL-244]

J.11. The permittee agrees to scrub each kiln's exhaust gases with a minimum of 100 gpm of recirculated sodium sulfite solution injected into final duct sprays of the existing Kiln A & B scrubbers. The scrubbing solution shall consist of spent caustic solution from the Kiln C scrubbing system, when operating, and a minimum of 15 gallons per hour of 50% caustic solution (total for both kilns) with the 50% caustic makeup flow measured and recorded by an inline totalizing flowmeter with certified accuracy of ±5%. To prevent recovered SO_2 from being stripped out of acidic pond water that may be recirculated to other scrubbers, no effluent from caustic scrubbing shall be discharged to the existing process water pond system or any other acidic wastewater that can be recirculated to any scrubber.
[1050059-024-AC/PSD-FL-244]

Test Methods and Procedures

J.12. Frequency of Compliance Testing. Test the stack common to the Multifos Production Plant dryer, batch blending operation, Kiln A & B scrubbers and stack for Kiln C scrubber for particulate matter emissions, fluoride emissions and visible emissions during each FFY (Oct 1 – Sep 30).

[Rules 62-297.310(7)(a)(4), and 62-297.310(8)(b), F.A.C.]

J.13. Test the Multifos Kiln C scrubber for sulfur dioxide and NOx emissions during each FFY (Oct 1 – Sep 30).
[Rule 62-297.310(7)(a)(4), F.A.C.]

J.14. The permittee shall test the emissions from the Multifos Soda Ash Rail Hopper Car Unloading System; Multifos Soda Ash Conveying System; Multifos A, B, and C Kiln Cooler; Multifos Milling and Sizing System (West Baghouse, East Baghouse, and Surge Bin); and Multifos Kiln C Milling & Sizing Baghouse for visible emissions annually.
[Rule 62-297.310(7)(a)(4), F.A.C.]

J.15. Compliance with the emission limitations of **Conditions J.5, J.6, J.7, J.8, J.9,** and **J.10.** shall be determined using EPA Methods 1, 2, 3, 4, 5, 6, 7E, 8, 9, and 13A or 13B as contained in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C.
[Rule 62-297, F.A.C.]

J.16. Each batch of used oil collected for use as fuel shall be sampled and analyzed for all of the constituents/properties listed in **Condition J.3.** using EPA/DEP or ASTM approved method. A compliance test submitted using a better grade of oil, than No. 6 grade, will automatically amend this operation permit to only allow subsequent operation on only that better grade oil or a higher ranked oil, unless a compliance test is submitted based on any other allowable permitted oil within 30 days of fuel switching. Split samples of the used oil shall be retained for 3 months after the analysis for further testing if necessary. If used oil is being fired during the annual stack tests then results of the most recent batch analysis shall be submitted along with the test report.
[Permit AC53-267687]

J.17. The visible emissions test shall be conducted by a certified observer and be a minimum of 60 minutes in duration (E.U.s 036 and 074 only, all other E.U.s 30 minutes in duration). The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. A visible emissions test shall be conducted during the same testing period as the particulate matter test and the fluoride emission test.
[Rules 62-297.320(4)(b), and 62-4.070, F.A.C.]

J.18. Compliance testing shall be conducted while firing oil, if oil of any type (new, fuel oil, or on-specification used oil), has been used in the rock dryer and/or the kilns for a sum total of more than 400 hours from the previous test. If a test is conducted while firing natural gas, and in the 12 month period following the test, oil of any type is burned for a sum total of more than 400 hours, then an additional visible emission test per **Condition J.6** shall be conducted, while burning oil in that source, within 30 days of having exceeded the 400 hour oil burning limit. A compliance test submitted using a better grade of oil, than No. 6 grade, will automatically amend this operation permit to only allow subsequent operation on only that better grade oil or a higher ranked oil, unless a compliance test is submitted based on any other allowable permitted oil within 30 days of fuel switching.
[Rules 62-297.310(7)(a)5., and 62-4.070(3), F.A.C.]

Monitoring of Operations

J.19. The permittee shall calibrate, maintain, and operate monitoring devices to determine the mass flow to the mixed feed pug mill and to each of the three kilns. The monitoring devices shall have an accuracy of ±10% over their operating ranges. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in tons per hour of phosphorus-bearing feed.
[Rule 62-297.310(5), F.A.C.]

J.20. The permittee shall provide reasonable assurance of proper operation of scrubbers by maintaining a continuous written record (log) of the operating parameters for all scrubbers in the Multifos Plant. At a minimum, the following information shall be manually recorded during each hour of operation: scrubber liquid flow rates, scrubber gas pressure drop, fan motor amperage, name of person recording the information.
[1050059-044-AC, 1050059-024-AC/PSD-FL-244, Rules 62-4.070(3), 62-4.160(14)(b), and 62-4.160(14)(c), F.A.C.]

J.21.1. In order to provide reasonable assurance, when the Multifos Production Plant is operating, that the pollution control equipment is operating properly, the permittee shall comply with **Common Condition 18.**
[Rule 62-4.070(3), F.A.C.]

J.21.2. Plant and emission control equipment operating parameters determined during compliance testing and/or inspection that will establish the proper operation of Kiln C shall be included as part of this permit.
[1050059-044-AC]

Recordkeeping and Reporting Requirements

J.22. The permittee shall create and keep a daily record log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, the gas pressure drop (inches of water), the date and time of the measurements, and the person responsible for performing the measurements. A record log entry for each baghouse shall be made at least once each day that the Multifos Production Plant operators.
[Rule 62-4.070(3), F.A.C.]

J.23. A record log(s) shall be established and maintained to document, at a minimum, the following:

a. the quantity of the new, fuel oil and the on-specification used oil utilized in the dryer and the kilns.
b. the sulfur content (percent, by weight) of the new, fuel oil and the on-specification used oil utilized in the dryer and the kilns.
c. the date, the quantity (volume) of petroleum contaminated soil added to the kiln feed for disposal, and the operating status of the kilns (feed rate per kiln) when petroleum contaminated soil was added (See **Condition J.4**).

[Rule 62-4.070(3), F.A.C., and Construction Permit AC53-267287]

J.24. In order to document compliance with the rate limitation of **Condition J.27**, the permittee shall maintain daily records of the amount of Multifos product conveyed into the Multifos

product storage building, the amount of dust suppressant material used and the total hours of process operations.
[Rule 62-4.070(3), F.A.C.]

J.25. All tests reports submitted to the Air Compliance Section of the Southwest District Office of the Department of Environmental Protection shall include the representative used oil batch analysis (See **Condition J.3**), if the used oil was fired during the annual stack tests and/or the representative fuel oil analysis, if fuel oil was fired during the annual stack tests.
[Rule 62-4.070, F.A.C.]

J.26. The permittee shall keep logs for the facility to document compliance with the limitations of **Condition J.1.** The logs shall be retained on file at the facility and the logs shall at a minimum record the following:

a. record daily the input rates* of the mixed feed preparation section, Kilns A, B, and C, soda ash handling, the product handling operations*, and the dryer; and the total hours of process operations.
b. record monthly and 12 month rolling totals (12 consecutive month totals) the production rates of Kilns A, B, and C.

*{*NOTE: Engineering estimates may be used to estimate these parameters.}*
[Rule 62-4.070(3), F.A.C.]

Source Commitments (Not Federally Enforceable)

J.27. All Multifos product being conveyed into the Multifos product storage building shall be coated with a dust suppressant material. As stated in the permittee response letter of March 6, 1991, the dust suppressant material used shall be KGA 500D, binder acid, or equivalent, applied at a rate of 1.5 to 2.5 pounds per ton of product, or an equivalent substitute applied at the appropriate rate to control generation of fugitive emissions. In order to minimize any dust suppressant application system downtime, the permittee shall maintain an in-line spare pump to be used in the event of failure of the main operating pump. Any equipment malfunction or other event resulting in the transfer of uncoated product into the building for a period in excess of two hours shall be reported immediately to the Compliance Section of the Southwest District Office of the Department of Environmental Protection. In the event that the dust suppressant equipment outage continues for more than two hours and there are visible emissions from the building, then the transfer of uncoated product shall be discontinued.

{Permitting Note: As an indicator of the effectiveness of this control measure, visible emissions from the product storage building shall not exceed 5% opacity.}
[Rule 62-296.320(4)(a), F.A.C. and March 15, 1991 amendment to AO53-127484, Consent Order Case No. 90-1835]

Other

J.28. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection K. This section addresses the following emissions unit(s).

E.U. ID No.	Brief 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

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 new molten sulfur truck loading station, and the associated transfer pumps and piping. The permittee trucks any additional molten sulfur offsite.

{Permitting note(s): 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 62-296.411, F.A.C., Sulfur Storage and Handling Facilities.}

{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.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

K.1. Permitted Capacity
a. These emissions units are permitted to operate continuously, 8,760 hours per year.
b. The 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.
c. The 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 shipped offsite.
[Rule 62-4.160(2), F.A.C., Rule 62-210.200, F.A.C., Definitions - (PTE), Construction Permits AC53-163774 and 1050059-034-AC]

Emission Limitations and Standards
*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) K.2.** is based on the specified averaging time of the applicable test method.}*

K.2. Visible emissions from any emission point in the molten sulfur facility shall not exceed 20% opacity (six minute average).
[Rule 62-296.411(1)(g), F.A.C.]

{Permitting note: For emission inventory and PSD purposes, the estimated maximum emissions from the emissions units in the molten sulfur storage and handling system are noted below:

E.U. ID 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	0.2	0.8	0.3	1.2	0.1	0.6	0.2	0.7
-064, -069	No. 2 Truck Pit	0.1	0.3	0.1	0.5	0.1	0.2	0.1	0.3
-065	Rail Pit	0.2	0.8	0.3	1.2	0.1	0.6	0.2	0.7
-066	Transfer Pit	0.1	0.4	0.1	0.4	0.1	0.2	0.1	0.2
-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
	Totals	1.8	6.0	3.7	7.6	0.8	3.6	1.2	4.1

[AC53-163774]}

Test Methods and Procedures

K.3.1. Frequency of Compliance Testing. Each identified emissions unit shall be tested every 5 years for visible emissions.
[Rule 62-297.310(7)(a)3. & 4., F.A.C.]

K.3.2. Testing of emissions from each identified emissions unit to show compliance shall be conducted according to the following:
a. Storage Tanks and Truck Loading Station (EU Nos. -060, -062, and -080) shall be tested within 90-100% of the maximum throughput rate. The actual throughput rate (in tons/hour) for the test period and an explanation how the maximum rate was determined shall be included in the test report for each test.

b. Molten Sulfur Pits (EU Nos. -063, -064, -065, -066, -067. -068 and -069) shall be tested under normal operating conditions while the pit is receiving sulfur. The actual throughput rate (in tons/hour) for the test period and an explanation how the rate was determined shall be included in the test report for each test.
c. Failure to submit the actual unloading/transfer rate for the test period and a copy of the daily log for the test day in the test report may invalidate the test and fail to provide reasonable assurance of compliance.
[Rule 62-297.310(2), and 62-4.070(3), F.A.C. and Permit No. 1050059-034-AC]

K.4. Compliance with the emission limitation of **Condition K.2**. shall be demonstrated using DEP Method 9.
[Rule 62-297.411(1)(j)1., F.A.C.]

Monitoring

K.5. The permittee shall employ the following procedures to minimize emissions from the molten sulfur system pursuant to the applicable requirements of Rule 62-296.411(1), F.A.C., "Molten Sulfur Storage and Handling Facilities":

A) All molten sulfur transfer shall be through enclosed piping systems where feasible and practical. In user facilities, molten sulfur may be transferred by covered trench or a movable spout which is positioned over a receiving pit. Contact surfaces between moveable unloading arms and stationary pipes shall seat effectively around the entire circumference to minimize spillage.
[Rule 62-296.411(1)(a), F.A.C.]

B) All areas surrounding points where molten sulfur pipes are routinely disconnected and areas where molten sulfur is transferred to trucks or railcars shall be paved and curbed within 20 feet of the point of disconnection or transfer to contain any spilled molten sulfur, or shall be provided with noncorrosible drip pans or other secondary containment, positioned to collect spills, that are adequate to contain amounts of sulfur that may escape during routine disconnect, reconnection or operation of the piping system.
[Rule 62-296.411(1)(b), F.A.C.]

C) All spilled molten sulfur shall be collected and properly disposed of whenever the containment area is filled to one-half its containment capacity, or monthly, whichever is more frequent. Spills of molten sulfur outside of a containment area, or where subject to vehicular traffic, shall be collected and disposed of as soon as possible, but no later than 24 hours after the spill occurs. Drip pans or other secondary containment shall be cleaned as needed to prevent exceedance of capacity, but at least weekly.
[Rule 62-296.411(1)(d), F.A.C.]

D) All vent surfaces shall be cleaned monthly to remove captured particulates.
[Rule 62-296.411(1)(e), F.A.C.]

Recordkeeping and Reporting Requirements

K.6. In order to document compliance with Specific **Condition K.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 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) Monthly total sulfur received (tons/month).
F) Monthly total sulfur usage by the production facility (tons/month).
G) A consecutive 12 month period (most recent 12 months) of the throughput rate (as measured by the amount received) in tons/year will be maintained for compliance with the annual limit.
H) A consecutive 12 month period (most recent 12 months) of the production facility 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]

K.7. In order to document compliance with **Condition K.5.**, the permittee shall keep the following records:

A) Records of spills outside of the containment areas and of collection and disposal of spilled sulfur. [Rule 62-296.411(1)(f), F.A.C.]
B) Records of collection and disposal of spilled molten sulfur inside of the containment area including records of weekly and monthly cleaning.
[Rule 62-296.411(1)(d), F.A.C.]

Such records shall be retained for a minimum of five (5) years and shall be available for inspection by the Department upon request.
[Rules 62-213.440(1), and 62-4.070(3), F.A.C.]

K.8. 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 Permit No. 1050059-034-AC]

Reasonable Assurances

K.9. A closed piping system shall be employed on the Truck Loading Stations (EU 080).
[Rule 62-296.411(1)(a), F.A.C. and Permit No. 1050059-034-AC]

Other

K. 10. The permittee shall submit a written plan detailing the "Postconstruction Monitoring" for compliance with Rule 62-212.600(2)(c), F.A.C. The permittee shall conduct post construction air quality and deposition monitoring of sulfur particulate emissions from the facility for 2 (two) years from the date of commencement of sulfur handling. The permittee shall through the permitting process determine the period of time, if any, such monitoring must be continued after that time. The data collected shall be provided to the Department as specified in the permit. All ambient air quality monitoring shall be done in accordance with the provisions of DEP Reference Method for Monitoring Deposition of Sulfur Particulate, hereby adopted and incorporated by reference. A final monitoring report with a summary shall be submitted to the compliance authority for the 24 month period of monitoring.
[Rule 62-4.070(3), 62-210.300(2), and 62-213.420(1)(a)(2), 62-212.600(2)(c), F.A.C.; Permit Nos. 1050059-034-AC and 1050059-052-AC]

K.11. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection L. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-070	Limestone Storage Silo/Rock Grinding

The storage silo has a working capacity of 200 to 1000 tons of material (ground limestone). The limestone is transported to the New Wales Facility by tanker truck, stored in the silo, and then used to neutralize the process water in the wet rock grinding operation, as required. Particulate matter (PM) emissions from the storage silo during pneumatic loading of the limestone are controlled by a pulse type bag collector. Fugitive PM emissions are be controlled by the use of good work practices.
{Permitting note(s): This emissions unit is regulated under Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; and, Rule 62-296.700, F.A.C., RACT Particulate Matter.}

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

L.1. Permitted Capacity

L.1.1. The unloading rate shall not exceed 50 tons per hour.
[Rule 62-4.160(2), F.A.C.; and, Rule 62-210.200, F.A.C., Definitions - (PTE)]

L.1.2. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

Emission Limitations and Standards

*{Permitting Note: Unless otherwise specified, the averaging time(s) for **Specific Condition(s) L.2.-L.3.** are based on the specified averaging time of the applicable test method.}*

L.2. Visible emissions from baghouse exhaust, and the associated storage or conveying equipment, shall not be equal to or greater that 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

L.3. The maximum allowable emission rate of particulate matter from the baghouse exhaust is 0.7 pounds per hour and 3.0 tons per year.
[Rules 62-296.700(2)(b), 62-212.300, F.A.C. and Requested in Permit Application, 10/02/95]

{Permitting note: Emission limits based on a grain loading value of 0.03 grains per dry standard cubic foot and a design air flow rate of 2700 dry standard cubic feet per minute (3000 actual cubic feet per minute).}

Test Methods and Procedures

L.4. Test for visible emissions per **Condition L.2** during each FFY (Oct 1 – Sep 30).
[Rule 62-297.310(7)(a)4., F.A.C.]

L.5. Test for particulate matter emissions per **Condition L.3**, every 5 years. The annual visible emissions test required per **Condition L.2** shall be conducted concurrently with this particulate matter emissions test.
[Rules 62-297.310(7)(a)3, F.A.C.]

L.6. Compliance with the particulate matter and visible emissions limitations shall be determined using EPA Methods 1, 2, 4, 5, and 9 contained in 40 CFR 60, Appendix A, adopted by reference in Rule 62-297, F.A.C. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. This period is expected to be the last minutes of silo loading when the silo approaches storage capacity. The visible emissions test shall be conducted for the normal duration of the silo loading operation.
[Rules 62-297.620(4), 62-297.310(4)(a) and 62-297.310(8), F.A.C.]

Operating Rate During Testing

L7. All visible emissions tests and particulate matter emission tests shall be conducted while pneumatically loading the silo with ground limestone material at a rate that is representative of the normal production silo loading rate. Prior to testing, the silo shall have a minimum residual content of 400 tons of material. The silo loading rate for each test shall be a minimum of 25 tons per hour and the silo shall be loaded using a minimum of 25 tons of material pneumatically conveyed to the silo in less than one hour. Each test report shall include a calculation indicating the actual silo loading rate during each test, the total amount of material loaded to the silo and the residual contents of the silo prior to each test. Testing at conditions that are not representative of normal operating conditions may invalidate the test or limit subsequent source operation.
[Rules 62-297.310(7), 62-297.310(8), and 62-4.070(3), F.A.C.]

Monitoring of Operations and Recordkeeping and Reporting Requirements

L.8. The permittee shall create and keep a daily record log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, the gas pressure drop (inches of water), the date and time of the measurements, and the person responsible for performing the measurements.
[Rule 62-4.070(3), F.A.C.]

L.9. In order to document compliance with the process rate limitation of **Condition L.1**, the permittee shall maintain daily records of the amount of material processed and the total hours of process operations.*
*{*NOTE: Engineering estimates may be used to estimate these parameters.}*
[Rule 62-4.070(3), F.A.C.]

Other

L.10. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection M. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-071	Phosphogypsum Stack

{Permitting note(s): This emissions unit is regulated by NESHAP 40 CFR 61 Subparts A and R (National Emission Standards for Hazardous Air Pollutants -- General Provisions; and National Emission Standards for Radon Emissions from Phosphogypsum Stacks.}

The following conditions apply to the emissions unit(s) listed above:

40 CFR 61 Subpart A and R

M.1. The permittee shall comply with **Appendix 40 CFR 61 Subpart A and R** attached to this permit.

Subsection N. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-078	Granular Monoammonium Phosphate (GMAP) Plant

The existing Granular Triple Super Phosphate (GTSP) Plant was converted to a Granular Monoammonium Phosphate (GMAP) Plant. Some of the existing GTSP equipment, as well as new equipment, was used in the conversion. The converted plant has a maximum production rate of 150 tons per hour of GMAP (75 TPH P_2O_5 feed). The production of GTSP is not allowed, unless authorized in a subsequent construction permit. GMAP is made by reacting anhydrous ammonia and phosphoric acid in a covered reaction tank with the further addition of ammonia and acid in a granulator. The granulated product is then dried in a rotary drier. The dried product is further processed by screening, milling (oversized), and reprocessing (undersized). The properly sized product is conveyed to the storage building for eventual load out.

The dryer has a maximum design heat rate input of 63.7 MMBtu/hr and is fired with natural gas or No. 6 fuel oil (2.50% sulfur max.). The maximum heat rate input used in GMAP production is 30 MMBtu/hr. The rate shall be controlled by the operator through instrumentation either manually or automatically.

New Equipment New emission sources include a reactor, granulator, product cooler and polishing screens. New air pollution control equipment includes a venturi scrubber with cyclonic demisting, impact sprays, cooler cyclone, and an irrigated Kimre™ (mesh) pad. GMAP Plant process emission sources and associated air pollution control equipment are listed below. The new granulator is slightly larger than the old granulator (12’ diameter x 27’ foot long versus 11’ x 25’) to improve GMAP product size and shape and still maintain the existing production rates. It is fitted with an ammonia sparger to produce a drier GMAP product. Design air flow rate through the new granulator is the same as the old unit (26,000 acfm).

Air Pollution Control System Emissions from the dryer, product cooler and material handling equipment are directed to cyclones for product recovery. Emissions from the reactor, granulator, dryer cyclones and cooler cyclone are directed to the Main Scrubber System. The Main Scrubber System includes a venturi and dual cyclonic demisters, which are used to recover ammonia and to control particulate matter and fluoride emissions. The scrubbing medium is recirculated phosphoric acid. Remaining fluoride and particulate matter are further controlled by 3 impact sprays, an irrigated Kimre™ pad, and a Kimre™ demist pad. The scrubbing medium is recirculated fresh water. Emissions from various material handling equipment are directed to the Equipment Scrubber System, consisting of a venturi, 4 impact sprays, and a cyclonic demister for control of particulate matter and fluoride emissions. The scrubbing medium is recirculated fresh water. The Main Scrubber System and the Equipment Scrubber System are ducted to a common stack for exhaust to the atmosphere.

{Note: If requested, the Department is amenable to authorizing a test program to evaluate an alternate control method consisting of an additional Main Scrubber System impact spray in place of the irrigated Kimre™ pad. This configuration is referenced as Option 4 in the accompanying BACT Determination. The additional impact spray may be installed, but not operated, unless in conjunction with the aforementioned test program.}

Product Transport, Storage, and Loadout GMAP shall be oiled and conveyed to a storage building via the product conveyor. Oiled GMAP is not expected to be a source of particulate matter emissions. As a result, use of the storage building scrubber system is not required by this permit. GMAP will be stored in the northern portion of the existing product storage building and loaded into railcars or trucks by the existing loadout system.

Granular MAP/DAP Emission Sources & Associated Control Equipment

Process Emission Source*	Control Equipment
Reactor	Main Scrubber System - venturi, 2 cyclonic demisters, 3 impact sprays, irrigated Kimre™ pad, and Kimre™ demist pad
Granulator	
Dryer	
Product Cooler	
Dryer Lump Breaker	Equipment Scrubber System - venturi; 4 impact sprays, cyclonic demister
Dryer Spillage Belt	
Granulator Feed Elevator	
Screens Feed Elevator	
Recycle Conveyor	
Chain Mills (4)	
Screens (4) - following Screens Feed Elevator	
Product Elevator	
Cooler Feed Conveyor	
Polishing Screens (A & B)	indirectly vented to product cooler
Product Bin	
Product Conveyor	covered conveyor
Product Storage Building	enclosed building

*****from process flow diagram revised March 10, 2000.

{*Permitting Note(s):*

- The GMAP Plant is subject to 40 CFR 63 Subpart BB, *National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizer Plants*. Compliance with this subpart must be achieved no later than June 10, 2002.
- The GMAP Plant is subject to Rule 62-296.403(i), F.A.C., *Phosphate Processing.* This rule requires Best Available Control Technology (BACT) to control fluoride emissions.
- The facility had requested that this project be permitted as a non-PSD source. Therefore, this permit contains limitations to ensure that this modification does not exceed PSD significant increase levels.}

<u>Referenced Attachments from this Subsection:</u>
Best Available Control Technology (BACT) Determination dated xx/xx/xx.
Alternate Procedures and Requirements ASP No. 95-H-01.

<u>These documents relevant to this Subsection are on file with permitting authority:</u>
DEP Memorandum dated December 17, 1983: Simultaneous Test for Fluorides and Particulates.
Letter from DEP dated September 30, 1983: Testing of Fluorides and Particulates.
Letter from Mr. Tom Fuchs dated September 20, 1983: Testing of Fluorides and Particulates.

Permitting History from this Subsection:
The conversion to a GMAP Plant was a modification of the previously permitted GTSP Plant. The GTSP Plant (Emissions Unit No. 010) is inactive. A new Emissions Unit No. (078) was assigned to the GMAP Plant.

The following conditions apply to the emissions unit(s) listed above:
Operation Limitations

N.4.1. Allowable Fuels. The permittee is authorized to burn only the following fuels in the dryer:

(a) Natural gas.

(b) New No. 6 fuel oil or better grade with a fuel oil sulfur content of up to 2.50 %S, by weight. A better grade fuel oil is defined as a fuel oil with a higher ranking in the following list:

Better Grade (a fuel above another is considered better than those below)
New No. 2 fuel oil
New No. 3 fuel oil
New No. 4 fuel oil
New No. 5 fuel oil
New No. 6 fuel oil

*{Permitting Note: **Condition Nos. N.1.** and **N.2.** ensure that the increase in SO_2 emissions due to this project is below the PSD significant increase level and therefore a PSD review was not triggered.}*
[Rule 62-212.400(2)(g), F.A.C.; Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050059-030-AC]

N.2. No more than 1,448,895 gallons of new No. 6 fuel oil (based on a sulfur content of 2.50 % S by weight or equivalent gallons adjusted for actual sulfur content) shall be fired in the dryer in any consecutive 12-month period.
*{Permitting Note: **Condition Nos. N.1.** and **N.2.** ensure that the increase in SO_2 emissions due to this project is below the PSD significant increase level and therefore a PSD review was not triggered.}*
[Rule 62-212.400(2)(g), F.A.C.; Rule 62-210.200(PTE), F.A.C.; and, Permit No. 1050059-030-AC]

N.3. The P_2O_5 process input rate shall not exceed 75 TPH (daily average basis) and 657,000 tons per consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C. and Permit No. 1050059-030-AC]

N.4. The maximum production rate of GMAP shall not exceed 150 TPH (daily average basis) and 1,314,000 tons per consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C. and Permit No. 1050059-030-AC]

N.5. Emissions Unit Operating Rate Limitation During & After Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

N.6. As of July 27, 2000, the following emissions units shall no longer be used and their associated emissions shall not be used in future PSD applicability determinations:

E.U. No. - Emissions Unit
-005 - Ground Phosphate Rock Unloading Station (to be demolished)
-006 - Storage Silo
-021 - Feed Bin

{Permitting Note: The reduction in actual emissions due to the shutdown of emissions unit Nos. -005, -006, and -021 were used to qualify this project as a PSD minor for PM/PM_{10}.}
[Application received 3/16/00 and Permit No. 1050059-030-AC]

N.7. The following work practices (reasonable precautions) shall be followed:

(a) apply dust suppressant to the GMAP prior to discharge to the product conveyor and, if necessary, apply additional oil at product loadout;
(b) maintain covers and/or enclosures for the product conveyor; and,
(c) maintain roof/walls for the product storage building.

[Rule 62-296.320(4)(c)2, F.A.C. and Permit No. 1050059-030-AC]

Emission Limitations

N.8. Total fluoride emissions from the GMAP Plant shall not exceed 2.40 lb/hr, 10.5 tons per year, and 0.032 lb F/ton of P_2O_5 input.
[Rule 62-210.200 (PTE), F.A.C.; BACT Determination dated xx/xx/xx and Permit No. 1050059-030-AC]

N.9. PM/PM_{10} emissions from the GMAP Plant shall not exceed 9.68 lb/hr, 42.4 tons per year, and 0.0645 lb PM/ton of product.
{Permitting Note: This limit is more stringent than a previous limit established to avoid PM RACT (see IMC letter dated 11/29/94)}
[Rules 62-210.200 (PTE) and Permit No. 1050059-030-AC]

Monitoring Requirements

N.10 The permittee shall calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ±5 percent over its operating range.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

N.11. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in TPH of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of **Condition No. N.10.** and then by proceeding according to the following procedure:

The equivalent P_2O_5 feed rate (P) shall be computed for each operating day using the equation:

$$P = (Mp) \times (Rp)$$

where: Mp = total mass flow rate of phosphorus-bearing feed (TPH)
Rp = P_2O_5 content, decimal fraction

An approved method listed in 40 CFR 63.606(c)(3)(ii) shall be used to determine the P_2O_5 content of the feed.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

N.12. The permittee shall calibrate, maintain, and operate monitoring systems which continuously measures and permanently records the pressure drop in 15-minute block averages separately across the following: Main Scrubber System venturi, Equipment Scrubber System venturi, and irrigated Kimre™ pad. Each monitoring system shall be certified by the manufacturer to have an accuracy of ±5 percent over its operating range.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

N.13. The permittee shall calibrate, maintain, and operate monitoring systems which continuously measures and permanently records the liquid flow rate in 15-minute block averages separately across the following: Main Scrubber System venturi and impact sprays, Equipment Scrubber System venturi and impact sprays, and the irrigated Kimre™ pad. Each monitoring system shall be certified by the manufacturer to have an accuracy of ±5 percent over its operating range.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

N.14. The permittee shall determine and record the Main Scrubber System venturi scrubbing medium pH, via grab or composite sample, at least once per operating day.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

N.15. Recordkeeping for **Condition Nos. N.12.**, **N.13.**, and **N.14.** shall include the date and time of the measurements and the name of the person responsible for recording the measurements. This does not apply to continuous recording devices.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

N.16 Air Pollution Control Operating Parameters The scrubber operating parameters listed in **Condition Nos. N.12.** and **N.13.** shall be operated in accordance with **Common Condition.18.**
[Rule 62-4.070(3), F.A.C. and Permit No. 1050059-030-AC]

Compliance Testing Requirements

N.17. Compliance Tests. The GMAP Plant shall be tested for fluorides during each federal fiscal year FFY (Oct 1 – Sep 30) after the initial compliance test. In addition, in the year prior to the five-year anniversary of the initial PM/PM_{10} compliance test, conduct a PM/PM_{10} compliance test.
{Permitting Note: Since there is reason to believe that fluoride emissions increase with increasing ambient temperature, if the testing is not conducted during May through October, additional testing may be required.}
[40 CFR 63.626(a)(1); Rule 62-297.310(7)(a)3 & 4, F.A.C. and Permit No. 1050059-030-AC]

N.18. Test Methods
(a) Fluoride emissions testing shall be conducted in accordance with EPA Method 13A or 13B or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. (see attached ASP No. 95-H-01).

(b) PM/PM_{10} emissions testing shall be conducted in accordance with EPA Method 5 or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. The sample volume for each run shall be at least 30 dscf.
(c) The minimum requirements for stationary point source emission test procedures shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60 Appendix A.
[Rules 62-296.320(4)(a)3(i), 62-297.310(4)(a)2, 62-4.070(3) & 62-297.401, F.A.C.]

N.19. Test Report. The permittee of an air pollution emissions unit, for which compliance tests are required, shall file a report with the Air Compliance Section of the DEP-SWD on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after each test is completed. The test report shall provide, at minimum, the information required in Rule 62-297.310(8), F.A.C. In addition the report shall provide the following information for each test run:

- GMAP production rate (TPH);
- P_2O_5 input rate (TPH);
- Heat input rate (MMBtu/hr) and fuel type;
- Liquid flowrate (gpm) and pressure drop (inches H_20) for the venturi scrubbers and the irrigated Kimre™ pad;
- Liquid flowrate (gpm) for the impact sprays;
- pH for the Main Scrubber System venturi scrubbing medium.

[Rule 62-297.310(8), F.A.C. and Permit No. 1050059-030-AC]

N.20. Compliance testing of the GMAP Plant shall be conducted when firing No. 6 fuel oil if fuel oil has been used in the plant for more than 400 hours for the previous 12-month period proceeding the test, or if it is expected to be used in the plant for more than 400 hours during the next 12- month period. If the test is conducted while firing natural gas and in the 12-month period following the test No. 6 fuel oil is burned for more than 400 hours, then additional fluoride and PM/PM_{10} tests (while burning No. 6 oil in the plant) shall be conducted within 30 days of having passed the 400 hour fuel oil burning level. The permittee shall submit a statement of the fuel operating mode (type of fuel and heat input rate) as a part of the compliance test report. Failure to submit the fuel operation mode statement may invalidate the data and fail to provide reasonable assurance of compliance.
[Rule 62-4.070(3), F.A.C. and Permit No. 1050059-030-AC]

N.21. If emission testing is conducted while firing No. 6 fuel oil, compliance with the No. 6 oil sulfur content limitation in **Condition No. N.2.** shall be demonstrated during the test through submission of either of the following with the test report:

(a) Results of fuel oil analysis from the fuel oil vendor showing the sulfur content representative of the fuel fired during the compliance test;
(b) Results of a fuel oil analysis showing the sulfur content for a fuel oil sample taken during the compliance test.

[Rule 62-213.440, F.A.C. and Permit No. 1050059-030-AC]

Reporting And Recordkeeping Requirements

N.22. A recordkeeping log shall be established and maintained to document compliance with **Condition Nos. N.2, 3, 4** and **20.** The daily logs shall be updated and completed by the end of the next operating

day. The monthly logs shall be updated and completed by the 15th day of the following month. The logs shall include, at a minimum, the following:

Daily (by the end of the next operating day)

- **(a)** date;
- **(b)** hours of operation;
- **(c)** the calculated P_2O_5 feed rate (TPH, daily average basis);
- **(d)** the calculated GMAP production rate (TPH, daily average basis), noting the conversion factor;
- **(e)** hours and type of fuel oil usage;

Monthly (by the 15th day of the following month)

- **(f)** month;
- **(g)** monthly P_2O_5 input and production of GMAP (tons);
- **(h)** P_2O_5 input and production of GMAP for the most recent consecutive 12-month period (tons);
- **(i)** monthly total fuel oil usage (gallons);
- **(j)** total fuel oil usage for the most recent consecutive 12-month period (gallons);
- **(k)** monthly total hours of fuel oil usage;
- **(l)** total hours of fuel oil usage for the most recent consecutive 12-month period.

These records shall be retained on file at the facility for at least five years and shall be made available to the Department upon request.
[Rule 62-213.440(1)(b), F.A.C. and Permit No. 1050059-030-AC]

N.23. PSD Applicability - Based on the limitations contained in Permit No. 1050059-030-AC, this modification at an existing PSD major facility is not considered a significant modification subject to PSD review on the basis that the net emissions increases associated with the modification were determined to be not significant (ref. Table 2, Rule 62-212.400, F.A.C.). Should the permittee request relaxation of any emission or operational limitations in this permit that would affect the potential to emit of this facility, the Department will evaluate the applicability of the PSD requirements of Chapter 62-212, F.A.C. as if the modifications allowed by this permit had not yet taken place.
[Rule 62-212.400(2)(g), F.A.C. and Permit No. 1050059-030-AC]

N.24. MACT - The GMAP Plant is subject to 40 CFR 63 Subpart BB, *National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizer Plants*. Compliance with this subpart must be achieved no later than June 10, 2002.
[Permit No. 1050059-030-AC]

Other

N. 25. These emissions units are also subject to the conditions contained in **Subsection CC. Common Conditions.**

Subsection O. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-087	Existing Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE) ≤ 500 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)
-088	Existing Non-Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE) 100≤ HP ≤ 500 (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)
-089	Existing Non-Emergency Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engine (RICE) < 100 HP (Subject to NESHAP 40 CFR 63 Subpart ZZZZ)

***NOTE - IMPORTANT REGULATORY CLASSIFICATIONS* -**

This Title V facility contains emergency and general purpose stationary compression ignition (CI) internal combustion engines (shown below) that have been exempted from the requirements to obtain an air construction permit because these qualify for the categorical exemptions listed in Rule 62-210.300(3)(a), F.A.C. (specifically, Rule 62-210.300(3)(a)35 and 36, F.A.C. (Emergency Generator and General Purpose internal combustion engines and other RICE). However, these engines are included in this permit as regulated emission units because, based on their date of manufacture/construction, they are subject to federal rule NSPS 40 CFR 63 Subpart ZZZZ (National Emission Standards of Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). Latest revision has not been adopted by the State.

EU 087 - Existing Emergency Stationary CI RICE < 500 HP, consists of the following stationary compression ignition (CI) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Emergency Engine Location/Purpose
Cummins, Model NTA855P450	425	Prior to June 12, 2006	No. 2 Deepwell
Cummins, Model NTA855F2	350	Prior to June 12, 2006	C1 Diesel Fire Pump
Cummuns, Model IND355BC	335	Prior to June 12, 2006	Decant Pump
Detroit, Model 453	110	Prior to June 12, 2006	Couch Pump
Detroit, Model 12V71	350	Prior to June 12, 2006	C1 # 5 Generator
Ford, Model 4500EM	105	Prior to June 12, 2006	DAP # 2 East

EU 088 - Existing Non-Emergency CI RICE 100≤HP≤ 500 HP, consists of the following stationary compression ignition (CI) Reciprocating Internal Combustion Engine (RICE) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Engine Location/Purpose
Caterpillar, Model No. 3408	325	Prior to June 12, 2006	S/S Compressor
Detroit, Model No. 453	110	Prior to June 12, 2006	Booster Pump.

EU 089 - Existing Non-Emergency CI RICE <100 HP, consists of the following stationary compression ignition (CI) Reciprocating Internal Combustion Engine (RICE) engines at this facility:

Manufacturer & Model Number	HP Rating	Date (Year) of Manuf./Const.	Engine Location/Purpose
Cummins, Model No. 4BT	88.0	Prior to June 12, 2006	C-1 Liqua Water Blaster

*(**Stationary RICE Engine Listing Note** – The above listings of stationary CI RICE engines at this facility is based upon the information submitted in an attachment to a 02/11/2011 RAI response responding to a Department request for additional information on stationary RICE at the facility via RAI dated 09/13/2010)*

NOTE - IMPORTANT REGULATORY CLASSIFICATIONS:

Federal 40 CFR 60 New Source Performance Standard (NSPS) Applicability

NSPS Subpart IIII – NSPS 40 CFR 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines) does not apply to any of these CI engines based on their date of manufacture (i.e., before June 12, 2006).

Federal 40 CFR 63 National Emissions Standard for Hazardous Air Pollutants (NESHAP) Applicability

NESHAP Subpart ZZZZ - NESHAP 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) is applicable to these engines as existing stationary Reciprocating Internal Combustion Engines (RICE) at a major source of hazardous air pollutants (HAPs).

The following specific condition(s) apply to the emissions units 087, 088, and 089 listed above:

Applicable Federal Requirements

O.1. Federal 40 CFR 63 NESHAP Subpart ZZZZ Requirements - The engines in EU Nos. 087, 088 and 089 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines), which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart ZZZZ**, as it applies to existing RICE at major sources of hazardous air pollutants (HAP). The applicable requirements for each engine category and HP rating range are shown in the Appendix 63 - Subpart ZZZZ – RICE Summary of Requirements, attached to this permit.
[Rule 62-4.070(3), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

*(Compliance Note – The final compliance date for the applicable Subpart ZZZZ requirements for the existing compression ignition (**CI**) RICE engines at this major source of HAP is 05/03/2013. (40 CFR 63.6595(a)(1).)*

O.2. Federal NESHAP 40 CFR 63 Subpart A General Provisions Requirements - The engines in EU Nos. 087, 088 and 089 are subject to the applicable requirements of NESHAP 40 CFR 63 Subpart A (General Provisions for 40 CFR 63), as adopted and incorporated by reference in Rules 62-204.800(11)(d), F.A.C., which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart A General Provisions**. The applicable requirements of Subpart A are shown in Table 8 to 40 CFR 63 Subpart ZZZZ *(see Appendix NESHAP 40 CFR 63 Subpart ZZZZ)*.
[Rule 62-208.800(11)(d), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

Subsection MACT.A. 40 CFR 63 Subparts A, AA & BB – General Provision Common Conditions.

E.U. ID No.	Brief Description
-008	Phosphoric Acid Plant (East)
-017	Phosphoric Acid Plant (West)
-039	Phosphoric Acid Plant No. 3
-009	DAP Plant #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 II East Product Cooler
-011	MAP Prill Plant
-055	MAP Plant Cooler
-078	GMAP Plant

{Permitting note(s): This section of the permit includes the new requirements from 40 CFR 63 Subparts A, AA & BB – General Provision, National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants & National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants.}

The Part 40 CFR 63 Subparts A and AA take precedence over NSPS standards, but will not take precedence over BACT determinations. However, these emissions units are subject to all applicable NSPS standards if these emissions units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these emissions units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP.}

<u>40 CFR 63, Subpart A - General Provisions</u>

The following are new Specific Conditions from 40 CFR 63 - Subpart A that apply to the emissions units listed above:

MACT.A.1. The emissions units listed above shall comply with **Appendix 40 CFR 63 Subpart A - General Provisions** attached to this permit.
[Rule 62-204.800(11)(a), & (c)-(e), F.A.C.]

Subsection MACT.AA. 40 CFR 63 Subpart AA Common Conditions.

E.U. ID No.	Brief Description
-008	Phosphoric Acid Plant (East)
-017	Phosphoric Acid Plant (West)
-039	Phosphoric Acid Plant No. 3

{Permitting note(s): This section of the permit includes the new requirements from 40 CFR 63 Subpart AA - National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants. The Part 40 CFR 63 Subpart AA take precedence over NSPS standards, but will not take precedence over BACT determinations. However, these emissions units are subject to all applicable NSPS standards if these emissions units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these emissions units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP.}

<u>40 CFR 63, Subpart AA</u>

The following are new Specific Conditions from NESHAP 40 CFR 63 Subpart AA that apply to the emissions units listed above:

MACT.AA.1. The emissions units listed above shall comply with **Appendix 40 CFR 63 Subpart AA** attached to this permit with the exception as noted in **a.** below. The owner or operator is responsible for remaining in compliance with any updates made to Subpart A or AA upon the effective date in the final promulgated rule. Subsequently, this permit will be reopened to incorporate any applicable updates in accordance with Rule 62-213.430(4), F.A.C.

a. The approval process as described in federal regulation at 40 CFR 63.605(d)(1) & (d)(2) specifically,

> "*If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission*."

is replaced with:

> "Upon establishment of a new operating range the permittee shall operate under the new range. If the compliance authority has reason to believe the compliance test was not done properly then the compliance authority shall require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C."

[Rule 62-213.440(1)(b)1.a., F.A.C. and Rule 62-297.310(7)(b), F.A.C.]

[Rule 62-204.800(11)(b)18., F.A.C.]

MACT.AA.2. To establish operating parameters for these emissions units, the owner or operator must comply and demonstrate with the following:

1. Specifically notify the Department the testing will be for establishing allowable ranges for these emissions units according to Subparts A, AA, and the approved **DEP Order No. 06-H-AP, Approving Alternate Monitoring Plan dated April 21, 2006. The Order expires on April 20, 2016.**;

2. All tests must be precisely conducted according to the MACT standards and all applicable test methods;
3. All tests must clearly demonstrate compliance with all MACT standards and applicable test methods and requirements;
4. All tests shall be submitted to the Department in accordance with Subparts A and AA; and,

*{Permitting note: The **DEP Order No. 06-H-AP** authorized the use of fan amps in lieu of the maximum dP value from a scrubber.}*

[Rule 62-204.800(11)(a), (b)18., & (c)-(e), F.A.C. {40 CFR 63, Subpart A; 40 CFR 63, Subpart AA;}; **DEP Order No. 06-H-AP dated April 21, 2006;** and, Rule 62-213.440, F.A.C.]

Subsection MACT.BB. 40 CFR 63 Subpart BB Common Conditions.

E.U. ID No.	Brief Description
-009	DAP Plant #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 Plant Cooler
-078	GMAP Plant

{Permitting note(s): This section of the permit includes the new requirements from 40 CFR 63 Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants. The Part 40 CFR 63 Subpart BB take precedence over NSPS standards, but will not take precedence over BACT determinations. However, these emissions units are subject to all applicable NSPS standards if these emissions units are out of compliance with the NESHAP. State Implementation Plan (SIP) rules apply if these emissions units are out of compliance with the NSPS standards or if there is no applicable NSPS standard when out of compliance with the NESHAP.}

<u>40 CFR 63, Subpart BB</u>

The following are new Specific Conditions from NESHAP 40 CFR 63 Subpart BB that apply to the emissions units listed above:

MACT.BB.1. The 8 emissions units listed above shall comply with **Appendix 40 CFR 63 Subpart BB** attached to this permit with the exception as noted in **a.** below. The owner or operator is responsible for remaining in compliance with any updates made to Subpart A or BB upon the effective date in the final promulgated rule. Subsequently, this permit will be reopened to incorporate any applicable updates in accordance with Rule 62-213.430(4), F.A.C.

a. The approval process as described in federal regulation at 40 CFR 63.625(f)(1) & (f)(2) specifically,
   "*If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.*"
   is replaced with:
   "Upon establishment of a new operating range the permittee shall operate under the new range. If the compliance authority has reason to believe the compliance test was not done properly then the compliance authority shall require a special compliance test pursuant to Rule 62-297.310(7)(b), F.A.C."
   [Rule 62-213.440(1)(b)1.a., F.A.C. and Rule 62-297.310(7)(b), F.A.C.]

[Rule 62-204.800(11)(b)19., F.A.C.]

MACT.BB.2. To establish operating parameters for these emissions units, the owner or operator must comply and demonstrate with the following:

1. Specifically notify the Department the testing will be for establishing allowable ranges for these emissions units according to Subparts A, BB, and the attached **DEP Order No. 06-H-AP, Approving Alternate Monitoring Plan dated April 21, 2006. The Order expires on April 20, 2016.**;
2. All tests must be precisely conducted according to the MACT standards and all applicable test methods;
3. All tests must clearly demonstrate compliance with all MACT standards and applicable test methods and requirements;
4. All tests shall be submitted to the Department in accordance with Subparts A and BB; and,

*{Permitting note: The **DEP Order No. 06-H-AP** authorized the use of fan amps in lieu of the maximum dP value from a scrubber.}*

[Rule 62-204.800(11)(a), (b)19., & (c)-(e), F.A.C. {40 CFR 63, Subpart A; 40 CFR 63, Subpart BB}; **DEP Order No. 06-H-AP dated April 21, 2006;** and, Rule 62-213.440, F.A.C.]

Subsection CAM. Compliance Assurance Monitoring (CAM) Conditions.

E.U. ID No.	**Brief Description**	**Pollutant (s) Subject to CAM**
-056	DAP Plant No. 2 - East Product Cooler	PM
-036	Multifos A and B Kilns, Dryer and Blending Operation	PM and F
-074	Multifos C Kiln	PM, SO_2 and F
-078	GMAP Plant	PM

{Permitting note: These emissions units are subject to Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

The following new CAM conditions apply to the emissions unit(s) listed above:

Compliance Assurance Monitoring (CAM) Requirements

CAM.1. The 4 listed emissions units above are subject to the CAM requirements contained in the attached **Appendix CAM**. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [Rule 62-204.800(12), F.A.C.; 40 CFR 64; and, Rule 62-213.440(1)(b)1.a., F.A.C.]