Golder Associates Inc.

6026 NW 1st Place Gainesville, FL 32607 Telephone (352) 336-5600 Fax (352) 336-6603



June 11, 2009 063-7642

Florida Department of Environmental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Attention: Mr. Syed Arif, P.E.

RE: MOSAIC FERTILIZER, LLC - NEW WALES FACILITY

DRAFT PERMIT NO. 1050059-061-AC

BEST AVAILABLE RETROFIT TECHNOLOGY EXEMPTION APPLICATION

Dear Mr. Arif:

Mosaic Fertilizer, LLC (Mosaic) received the draft Permit No. 1050059-061-AC from the Department on May 28, 2009, to exempt the New Wales Facility from a best available retrofit technology (BART) determination. The purpose of this letter is to provide comments on the draft permit. To facilitate review and understanding of our comments, attached is a markup of the draft permit, with requested deletions and additions clearly shown. Also attached to this letter is a listing of each condition requested to be changed, with an explanation for the change. In addition, I have attached the motion for enlargement of time filed today. This motion is simply a protective measure to avoid waiver of Mosaic's right to challenge certain conditions contained in the Draft Permit and will allow the Department adequate time to review Mosaic's concerns and, in turn, allow Mosaic adequate time to respond.

If you have any questions or comments concerning the requested changes to the draft permit, please do not hesitate to call me at (352) 336-5600. We would be glad to meet with you to discuss these issues, if necessary. Thank you for your consideration of this request.

Sincerely,

GOLDER ASSOCIATES INC.

David a. Boff

David A. Buff, P.E., Q.E.P.

Principal Engineer

DB/tz

Enclosures

cc: D. Turley, Mosaic

D. Jagiella, Mosaic

D. Jellerson, Mosaic

R. Iyer, Mosaic

S. Mohammad, Golder

S. Stephens, HG&S

C. Zhang-Torres, FDEP Tampa

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BUREAU OF AIR REGULATION

Mosaic Comments on Draft Permit No. 1050059-061-AC June 11, 2009

Page	Condition	Rationale for Change		
6	9	Please delete the reference to Best Available Control Technology. Since this BART permit is not a PSD permit, nor a BACT determination, the references to BACT should be deleted.		
6	12	Since this is not a PSD permit, the source obligation requirements under 62-212.400 are not applicable.		
will be implemented be changed to July 1, 201 permit will likely not be issued for a month or tadditional time to make this important decision not affect the other dates in the permit.		Mosaic requests that the January 1, 2010 deadline for deciding if Scenario A will be implemented be changed to July 1, 2010. The final BART exemption permit will likely not be issued for a month or two, and this will allow Mosaic additional time to make this important decision. This change, however, will not affect the other dates in the permit.		
7	1	Please delete the phrase "as expeditiously as practicable". This scenario is for the Multifos A and B Kilns to shutdown by a specific date, yet to be determined. The shutdown date can be no later than June 30, 2013, the date by which all construction and modifications must be completed under the permit.		
8	9	It is suggested to show proper footnote symbols in the table. Wording has been revised to be consistent with wording in the River BART permit.		
9	9.a, b			
9	10	The opacity limit should be removed as it is not a BART pollutant. The Riverview BART permit did not contain an opacity limit.		
10	Correction made to refer to Title V permit instead of "proposed by applicant in the application". "Application" should also be deleted from end of Condition 16.a.			
11	18	Method 19 is not necessary to support the other test methods. Method 19 is a data reduction method and is not referenced by the other test methods.		
11	20.a	The initial testing should be completed before April 30, 2013 (consistent with Riverview BART permit).		

Page	Condition	Rationale for Change		
		Delete this condition, as annual compliance testing requirements are not necessary in a construction permit. This is also consistent with the Riverview BART permit.		
11	20.c	"Tests Prior To Renewal" has been added, with language consistent with the Riverview BART permit. Annual testing should not be required for NO_x , since there is no control device for NO_x emissions, and NO_x emissions from SAPs are known to be very consistent. Testing for NO_x prior to Title V permit renewal is also consistent with the current Title V permit for New Wales.		
12	22	It was agreed for Riverview to allow 60 days to submit the Construction Plan.		
12	22.a	The first report would be due in 2010, as the submittal is based on the anniversary date of this permit, which is 1 year from its effective date.		
13 1		As for Scenario A, Mosaic requests that the January 1, 2010 deadline for deciding if Scenario B will be implemented be changed to July 1, 2010. The change, however, will not affect the other dates in the permit.		
		Compliance date should be June 30, 2013, which is the last date to complete all construction and modifications.		
14	Change the word "required" to "authorized", since not all of these charman be necessary in order to meet the BART limits, i.e., sulfur fur drying tower, etc.			
14	6	Consistent with Riverview, remove the wording stating that addition catalyst can only be used for SO ₂ emission reductions. Also, only the A a B Kilns would be scrubbed, not the dryer and blending operations.		
15	10.a,b	Wording has been revised to be consistent with wording in Riverview BART permit.		
15	10	It is suggested to show proper footnote symbols in the table.		
16	11	The opacity limit should be removed as it is not a BART pollutant. The Riverview BART permit did not contain an opacity limit.		
17	17	Correction made to refer to Title V permit instead of "proposed by the applicant in the application". Also, delete "application" from the end of condition 17.a.		
17	19	Method 19 is not necessary to support the other test methods.		
18	21.a	The initial testing should be completed before April 30, 2013 (consistent with Riverview BART permit).		

Page	Condition	Rationale for Change
		Delete this condition, as annual compliance testing requirements are not necessary in a construction permit. This is also consistent with the Riverview BART permit.
18	21.c	"Tests Prior To Renewal" has been added, with language consistent with the Riverview BART permit. Annual testing should not be required for NO _x , since there is no control device for NO _x emissions, and NO _x emissions from SAPs are known to be very consistent. Testing for NO _x prior to Title V permit renewal is also consistent with the current Title V permit for New Wales.
18 23 It was agreed for Riverview to allow 60 days to submit Construc		It was agreed for Riverview to allow 60 days to submit Construction Plan.
19	23.a	The first report would be due in 2010, as the submittal is based on the anniversary date of this permit, which is I year from its effective date.

MOSAIC/GOLDER MARKUP 6/11/09

PERMITTEE

Mosaic Fertilizer, LLC Post Office Box 2000 Mulberry, FL 33860

Authorized Representative:

Mr. David B. Jellerson, Assistant Vice President - Environmental

Air Permit No. 1050059-061-AC Expiration Date: June 30, 2013

New Wales Facility BART Exemption Project

PLANT AND LOCATION

The Mosaic Fertilizer, LLC operates the New Wales facility, which is located at 3095 Highway 640, Mulberry in Polk County, Florida. The facility is an existing phosphate fertilizer manufacturer, which is identified by Standard Industrial Classification (SIC) code No. 2874.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). Pursuant to Rule 62-296.340(5)(c) (escape BART), F.A.C., the permittee shall install the air pollution control equipment and/or implement the air pollution control measures that are specified by this permit to be exempt from a Best Available Retrofit Technology (BART) determination.

EFFECTIVE DATE

Unless otherwise specified by this permit, the affected emissions units shall comply with the conditions of this permit as expeditiously as practicable, but not later than the expiration date of this permit. [Rule 62-296.340(3)(b)2., F.A.C.]

Executed in Tallahassee, Florida	
 Joseph Kahn, Director Division of Air Resource Management	Effective Date

JK/tlv/sa

FACILITY DESCRIPTION

The applicant, Mosaic Fertilizer, LLC, operates an existing phosphate fertilizer manufacturer. 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. The facility consists of five double absorption sulfuric acid plants (SAP); three phosphoric acid plants (PAP); 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 and handling system; a limestone storage silo/rock grinding operation and a phosphogypsum stack.

FACILITY REGULATORY CLASSIFICATIONS

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate emissions units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source pursuant to Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

AFFECTED EMISSIONS UNITS

Mosaic Fertilizer, LLC submitted an application to escape the BART determination requirements of Rule 62-296.340(5)(c) (escape BART), F.A.C., which addresses the following emissions units with the potential to emit at least 50 tons per year (TPY) or more of a visibility-impairing pollutant:

EU ID No.	Brief Description
-002	SAP No. 1
-003	SAP No. 2
-004	SAP No. 3
-009	DAP Plant No. 1
-011	MAP Plant
-027	AFI Plant
-036	Multifos A and B Kilns, Dryer and Blending Operations

The rest of the BART-eligible emissions units at the New Wales facility are sources with relatively low particulate matter (PM) emissions (less than 5 lb/hr each). They are as follows:

	Brief Description	
EU ID		
No.		
-015	AFI truck loadout system	
-023	AFI storage silos - north side	

SECTION 1. GENERAL INFORMATION

-024	AFI railcar loadout system		
-025	AFI limestone storage silos		
-026	AFI silica storage bin		
-028	AF1 storage silos – south side		
-030	Multifos soda ash unloading		
-031	Multifos soda ash conveying		
-032	Multifos A kiln cooler		
-033	Multifos B kiln cooler		
-034	Multifos A and B kilns milling and sizing – West baghouses		
-035	Multifos A and B kilns milling and sizing – East baghouses		
-038	Multifos A and B kilns milling and sizing - surge bin		
-052	AFI limestone feed bin		
-055	MAP plant cooler		
-063	1,500-Ton truck unloading sulfur pit		
-066	200-Ton molten sulfur transfer pit		
-067	1,500-Ton truck unloading sulfur pit – front vents		
-068	1,500-Ton truck unloading sulfur pit – rear vents		

Except for the molten sulfur pits (EUs-063, -066, -067 and -068), all of theses emissions units emit only PM. The molten sulfur pits each emit 0.2 lb/hr or less of PM and 0.3 lb/hr or less of sulfur dioxide (SO₂).

SECTION 1. GENERAL INFORMATION

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Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Units Specific Conditions

Section 4. Appendices

Appendix A. Citation Formats

Appendix B. General Conditions

Appendix C. Standard Testing Requirements

Appendix D. Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants

SECTION 2. ADMINISTRATIVE REQUIREMENTS

- 1. <u>Permitting Authority</u>: The **Permitting Authority for this project is the Bureau of Air Regulation** in the Division of Air Resource Management of the Florida Department of Environmental Protection. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
- 2. <u>Compliance Authority</u>: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the **Compliance Authority**, **Southwest District (SWD) Office.** The Compliance Authority's mailing address is:

Florida Department of Environmental Protection Southwest District 13051 N. Telecom Parkway Temple Terrace, Florida 33637-0926 Telephone: 813/632-7600, Fax: 813/632-7665

- 3. <u>Appendices</u>: The following Appendices are attached as part of this permit: Appendix A (Citation Formats); Appendix B (General Conditions); Appendix C (Standard Testing Requirements); and, Appendix D (Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants).
- 4. <u>Applicable Regulations</u>, Forms and <u>Application Procedures</u>: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to the applicable provisions of: Chapter 403, F.S.; Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.; and the applicable parts and subparts of Title 40, Code of Federal Regulations (CFR). Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
- 5. <u>Title V Air Operation Permit:</u> This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the **Permitting Authority**, the Florida Department of Environmental Protection, Southwest District Office with copies to the Compliance Authority.

 [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]
- 6. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 (five) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2., F.A.C.]
- 7. <u>Annual Operating Report (AOR)</u>: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

NEW & PREVIOUS PERMIT SPECIFIC CONDITIONS

8. Pursuant to Rule 62-296.340(5)(c) (escape BART), F.A.C., the specific terms and conditions of this permit are required in order to escape a Best Available Retrofit Technology Determination. These specific terms and conditions apply to each emissions unit and are in addition to any other applicable standards. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; Proposed by the Applicant in the Application;

SECTION 2. ADMINISTRATIVE REQUIREMENTS

- and, Rules 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.]
- 9. A relaxation of the specific terms and conditions of this permit may subject the facility to a BART and/or a Best Available Control Technology (BACT) determination. Any request to change the specific terms and conditions of this permit must be submitted to the Bureau of Air Regulation in the Division of Air Resource Management of the Florida Department of Environmental Protection. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; and, Rules 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.]
- 10. The applicant has proposed two emission reduction scenarios A and B for the BART-eligible emissions units at the New Wales facility. For each of the emissions reduction scenarios, the New Wales facility is exempt from BART because its contribution to visibility impairment does not exceed 0.5 deciview (dv) above natural conditions in any Class I area. Emissions Unit Specific Conditions in Section 3 of the permit will address both the emission reduction scenarios under different subsections. The applicant will make a decision to implement scenario A or B no later than January 1, 2010, at which time the scenario that was not selected will become obsolete. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; and, Rules 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.]
- 11. No emissions unit or facility subject to this permit shall be constructed or modified without obtaining the appropriate air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

12. Source Obligation:

- (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit. [Rule 62-212.400(12)(a), F.A.C.]
- (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12)(b), F.A.C.]
- (e) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12)(e), F.A.C.]

Subsection A (Scenario A). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

This subsection addresses the following affected emissions units:

	Brief Description	
EU ID No.	·	
-002	SAP No. 1	
-003	SAP No. 2	
-004	SAP No. 3	
-009	DAP Plant No. 1	
-011	MAP Plant	
-027	AFI Plant	
-036	Multifos A and B Kilns, Dryer and Blending Operation	

ADMINISTRATIVE REQUIREMENTS

1. Emission Reductions under Scenario A: This subsection deals with emission reductions for the above affected emissions units under Scenario A. The permittee shall notify the Department's Bureau of Air Regulation and the SWD Office through a letter from the responsible official by JanuaryJuly 1, 2010 whether Scenario A will be implemented. Under Scenario A, the permittee shall shutdown EU-036 (Multifos A and B Kilns including associated coolers) as expeditiously as practicable after JanuaryJuly 1, 2010, but not later than June 30, 2013. [Rule 62-296.340(5)(c) (escape BART), F.A.C. and Applicant's Request received October 3, 2008]

{Note: The dryer and blending operations under EU-036 will not be shut down as it is part of a mixed feed system that feeds Kiln C. The Multifos A and B Kiln coolers will be shut down and are designated as EU-032 and EU-033, respectively.}

2. <u>Notification of Shutdown:</u> The permittee shall notify the Department's Bureau of Air Regulation, SWD Office and the Compliance Authority upon the shutdown of the EU-036 (Multifos A and B Kilns including associated coolers). If these emission units resume operations a BART analysis shall be performed as though they had not been shutdown. Other preconstruction review requirements may apply. [Rule 62-296.340(5)(c) (escape BART), F.A.C. and Applicant's Request received October 3, 2008]

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

3. <u>Design Capacity</u>: The existing design capacity of each SAP, DAP Plant No. 1, MAP Plant and the AFI Plant shall not be changed as a result of the proposed work under this project, Permit No. 10500059-061-AC. The existing design capacity of each of these emissions units shall not exceed the following:

EU ID No.	Plant Description	Design Production Capacity	
-002	SAP No. 1	P No. 1 3,400 TPD (tons per day) of 100% H ₂ SO ₄ (sulfuric acid)	
-003	SAP No. 2	3,400 TPD of 100% H ₂ SO ₄	
-004	SAP No. 3	3,400 TPD of 100% H ₂ SO ₄	
-009	DAP Plant No. 1	150 TPH (tons per hour) of MAP or DAP	
-011	MAP Plant	50 TPH of MAP	

Subsection A (Scenario A). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

-027	AFI Plant	120 TPH				
1 (0.41(0/0) 1(0.010,000 /D. ft. iii						

[Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.]

- 4. Methods of Operation Fuels: The DAP Plant No. 1 and the AFI Plant dryers shall be fired by natural gas. The two dryers can be fired with No. 6 fuel oil or better grade fuel oil (as defined in Condition CC.20 in Permit 1050059-045-AV) only during periods of natural gas curtailment. The permittee shall submit official document from the natural gas pipeline vendor to the SWD Office for verification of natural gas curtailments. [Rules 62-4.070(1)&(3) (Reasonable Assurance) and Rule 62-210.200 (Definitions Potential to Emit (PTE)), F.A.C.]
- 5. <u>Design Capacity & Permitted Production</u>: The permittee shall submit a statement from the responsible official within 30 days after the completion of all of the proposed work under this project. [Rules 62-4.160(2) and 62-210.200 (Definitions Potential to Emit (PTE)), F.A.C.]

AIR POLLUTION CONTROL TECHNOLOGIES & MEASURES

- 6. <u>SAP SO₂ Controls</u>: This BART exemption determination <u>does not</u> require new, modified or additional air pollution control systems for sulfur dioxide (SO₂). To control emissions of SO₂ from each SAP, the permittee shall continue the use of the existing double absorption system technology with vanadium and/or cesium catalyst in the converters and the use of good combustion practices & best operational practices to minimize excess emissions during startup and shutdown. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application]
- 7. SAP Acid Mist Controls: This BART exemption determination does require new, modified or additional air pollution control systems for sulfuric acid mist (SAM). By controlling SAM emissions, particulate matter/particulate matter less than 10 microns (PM/PM₁₀) and visible emissions are minimized. To control emissions of SAM, the permittee shall install Brownian diffusion-type candles on SAPs 1 and 2, similar to the one employed on SAP No. 3. Other SAM control technologies may be considered by the Bureau of Air Regulation upon written request. The permittee shall submit a written request for other SAM control technologies to the Bureau of Air Regulation with a copy to the Compliance Authority for review and approval prior to use. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application]
- 8. <u>Circumvention</u>: The permittee shall not circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

EMISSION STANDARDS & LIMITATIONS

9. <u>PM, NOx and SO₂ Standards</u>: Particulate matter, nitrogen oxides and sulfur dioxide emissions shall not exceed the following emissions standards.

EU ID	Emissions Unit Description	Emissions Standards		
No.		PM	NOx	SO_2
-002	No.1 Sulfuric Acid Plant		17 lb/hour ^a , a	496 lb/hour ^b , b
-003	No. 2 Sulfuric Acid Plant		17 lb/hour ^a , a	496 lb/hour ^b , b
-004	No. 3 Sulfuric Acid Plant		17 lb/hour ^a , a	496 lb/hour ⁶ , b
-009	DAP Plant No.1	15 lb/hour		See Footnote "c"

Subsection A (Scenario A). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

EU ID	Emissions Unit	Emissions Standards		
No.	Description	PM	NOx	SO_2
-011	MAP Plant	7 lb/hour	~~~	
-027	AFI Plant	36.8 lb/hour		See Footnote "c"

Footnotes:

- a. Nitrogen oxides emissions from Nos. 1, 2, and 3 Sulfuric Acid Plants (EU-002, EU-003 and EU-004) shall not exceed 17 lb/hour {equivalent to 0.12 lb/ton of 100% sulfuric acid at design capacity} based on a 3-hour average as determined by stack test data.
 - {Equivalent to 0.12 lb/ton of 100% sulfuric acid at design capacity. The equivalent lb/ton values corresponding to the lb/hr limits are equal to the current existing standards. The equivalent tons per year (TPY) values for each SAP are 75 TPY. This permit requires stack test data to be used to demonstrate compliance. Compliance with the 3-hour average by stack test assures compliance with a numerical standard on a 24-hour (daily) average basis. The air dispersion modeling was performed using a 24-hour (daily) average.}
- b. Sulfur dioxide emissions from Nos. 1, 2, and 3 Sulfuric Acid Plants (EU-002, EU-003 and EU-004) shall not exceed 496 lb/hour {equivalent to 3.5 lb/ton of 100% sulfuric acid at design capacity} based on a 24-hour (daily) block average as determined by CEMS-average. A 24-hour (daily) block average was established based on the emission rate averaging period of 24-hour (daily) used in the air dispersion modeling. No stack testing is required.
 - {Equivalent to 3.5 lb/ton of 100% sulfuric acid at design capacity. The equivalent lb/ton values corresponding to the lb/hr limits are equal to the current existing standards. The equivalent tons per year (TPY) values for each SAP are 2,172 TPY. This permit requires CEMS to be used to demonstrate compliance on a continuous basis on a 24-hour (daily) block average. A 24-hour (daily) block average was established based on the emission rate averaging period of 24-hour (daily) used in the air dispersion modeling.}
- c. To control sulfur dioxide emissions from the dryers, 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.20 in Permit 1050059-045-AV) may be fired as a fuel.
 - [Rules 62-4.070(3) and 62-296.340(5)(c) (escape BART), F.A.C.]
- 10. Opacity Standards: Visible emissions from the Nos. 1, 2 and 3 Sulfuric Acid Plants (EU-002, EU-003 and EU-004) shall not exceed 10% opacity as determined by EPA Method 9. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. [Rule 62-296.340(5)(e) (escape BART), F.A.C.; and 40 CFR 60.83(a)2 and 40 CFR 60, Appendix A, Method 9]
- 11. <u>SO₂ Continuous Emissions Monitoring System (CEMS):</u> This BART exemption determination requires an SO₂ CEMS to be used to demonstrate continuous compliance with the SO₂ emission standards and limitations specified in this section.
 - a. In accordance with the NSPS (40 CFR 60, Subpart H) requirements for sulfuric acid plants, the permittee shall continue to properly calibrate, maintain, and operate a CEMS to measure and record emissions of SO₂.

Subsection A (Scenario A). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

- b. A CEMS shall be properly calibrated, maintained, and operated to comply with: 40 CFR 60 Subpart A, General Provisions; 40 CFR 60 Appendix B, Performance Specification 2; and, 40 CFR 60, Appendix F, Quality Assurance Procedures for Gas CEMS Used for Compliance Determination.
- c. The emissions data collected with the certified CEMS shall be used to demonstrate continuous compliance with the standards and limitations specified in this section.

[Rules 62-296.340(5)(c) (escape BART), 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Proposed by the Applicant in the Application]

12. <u>SAM Emission Standards & Limitations</u>: This BART determination specifies <u>new SAM</u> emission standards. Emissions of SAM shall not exceed the following as demonstrated by stack test data:

SAP No.	lb/hour
1	7.1
2	7.1
3	7.1

Emissions of SAM shall not exceed 7.1 pounds per hour for each of the three SAPs based on a 3-hour average as determined by stack test data.

{The equivalent lb SAM/ton 100% H₂SO₄ values for SAP Nos. 1, 2, and 3 at design capacity for each SAP is 0.05 lb SAM/ton 100% H₂SO₄. The equivalent lb/ton value corresponding to the lb/hour limits is less than the current existing standards. The equivalent tons per year (TPY) values for SAP Nos. 1, 2, and 3 is 31.1 TPY. This permit requires stack test data to be used to demonstrate compliance. Compliance with the 3-hour average by stack test assures compliance with a numerical standard on a 24-hour (daily) average basis. The air dispersion modeling was performed using a 24-hour (daily) average.}

[Rule 62-296.340(5)(c) (escape BART), F.A.C.; and, Proposed by the Applicant in the Application]

EXCESS EMISSIONS

- 13. 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.]
- 14. Excess Emissions Allowed: 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.]
- 15. 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.]
- 16. 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-application.
 - b. Best operational practices to minimize excess SO₂ and SO₃ emissions during startup are governed by this condition. The permittee shall follow the best operational practices to minimize excess emissions during

Subsection A (Scenario A). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

startup contained within the attached Appendix D - Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants initially executed on October 25, 1989.

[Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application Title V permit no. 1050059-045-AV]

17. Best Operational Practices to Minimize Leaks of SO₂ and SO₃, or Other Fugitive Process Emissions: Best operational practices to minimize leaks of SO₂ and SO₃, or other fugitive process emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions. [Rules 62-4.070(1)&(3) and 62-296.320, F.A.C.]

EMISSIONS TESTING

18. <u>Test Methods</u>: The following reference methods (or more recent versions) shall be used to conduct any required emissions tests.

Method	Description of Method and Comments	
1 - 4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content	
5	Determination of PM Emissions from Stationary Sources	
6 or 6C	Determination of SO ₂ Emissions from Stationary Sources	
7E	Determination of NOx Emissions from Stationary Sources (Instrumental Analyzer Procedure)	
8	Determination of SAM & SO ₂ Emissions from Stationary Sources	
9	Visual Determination of Opacity from Stationary Sources	

EPA Methods 1, 2, 3, and 4, and 19 shall be used as necessary to support the other test methods. The above methods are described in 40 CFR 60, Appendix A, which is adopted by reference in Rule 62-204.800, F.A.C. No other methods shall be used without prior written approval from the Permitting Authority. [Rules 62-204.800 and 62-297.100, F.A.C.; and 40 CFR 60, Appendix A]

- 19. <u>Standard Testing Requirements</u>: All required emissions tests shall be conducted in accordance with the requirements specified in Appendix C (Standard Testing Requirements) of this permit. [Rules 62-204.800 and 62-297.100, F.A.C.; and 40 CFR 60, Appendix A]
- 20. <u>Compliance Test Schedule</u>: In accordance with the following schedule, the permittee shall have stack tests conducted to demonstrate compliance with the emissions standards specified in this permit.
 - a. *Initial Test*: On or before April 30, 20123, an initial test shall be conducted for NOx and SAM emissions from each SAP and PM emissions from DAP Plant No. 1, MAP Plant and the AFI Plant. The initial compliance test report for NOx, SAM and PM shall be submitted within 45 days of completion of testing. [Rules 62-296.340(5)(c) (escape BART) and 62-297.310(7)(a)1, F.A.C.]
 - b. *Initial & Special Test*: A visible emissions (VE) test shall be conducted concurrently with one run of the SAM stack test to demonstrate initial compliance with the existing VE standards after the proposed work has been completed for each SAP. The VE test results shall be submitted with the SAM stack test report. [Rules 62-4.070(1)&(3) and 62-297.310(7)(b), F.A.C.]
 - e. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct the following compliance tests.
 - (i). The permittee shall conduct NOx, SAM and visible emissions tests on the Nos. 1, 2 and 3 Sulfurie

Subsection A (Scenario A). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

Acid Plants (EU-002, EU-003 and EU-004) in accordance with EPA Methods 7E, 8 and 9 to demonstrate compliance with the NOx, SAM and opacity standard, respectively.

- (ii). To demonstrate compliance with the PM standards, the permittee shall conduct tests in accordance with EPA Method 5 on DAP Plant No. 1 (EU-009), MAP Plant (EU-011) and the AFI Plant (EU-027).
- c. Tests Prior to Renewal: Within the 12-month period prior to renewing the Title V air operation permit, tests shall be conducted for SAM and NO_x emissions from each SAP.

[Rules 62-296.340(5)(c) (escape BART), and 62-297.310(7)(a)3, F.A.C.]

{Note: Under this permit SO₂ CEMS are required to demonstrate compliance on a continuous basis, therefore, no initial or annual compliance test for SO₂ is necessary on the SAPs.}

RECORDS & REPORTS

- 21. 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 SO₂ continuous emissions monitoring systems for continuous compliance demonstrations.} [Rules 62-296.402(5) and 62-213.440(1)(b)2., F.A.C.]
- 22. <u>Construction Plan & Progress Reports:</u> The permittee shall submit a Construction Plan within thirtysixty (360) days of the effective date of this permit which shall contain the necessary milestones to comply with this permit. The Plan shall include at a minimum the necessary actions and corresponding scheduled due dates to complete those actions to comply with this permit.
 - a. The permittee shall submit progress reports based on the anniversary date (one year from the effective date) of this permit regarding the status of the milestones in the Construction Plan to the Department and to the Compliance Authority, no less than annually in 20092010 2013.
 - b. The permittee shall complete all required construction & modifications no later than June 30, 2013.

[Rules 62-296.340(5)(c) (escape BART), 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.]

Subsection B (Scenario B). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

This subsection addresses the following affected emissions units:

	Brief Description
EU ID No.	
-002	SAP No. 1
-003	SAP No. 2
-004	SAP No. 3
-009	DAP Plant No. 1
-011	MAP Plant
-027	AFI Plant
-036	Multifos A and B Kilns, Dryer and Blending Operation

ADMINISTRATIVE REQUIREMENTS

1. Emission Reductions under Scenario B: This subsection deals with emission reductions for the above affected emissions units under Scenario B. The permittee shall notify the Department's Bureau of Air Regulation and the SWD Office through a letter from the responsible official by JanuaryJuly 1, 2010 whether Scenario B will be implemented. Under Scenario B, the permittee shall reduce production rates of SAP Nos. 1, 2 and 3 from 3,400 TPD to 3,200 TPD and reduce lower daily average SO₂ and SAM emissions rates from the three SAPs. The SAPs shall comply with the new BART exemption limits for SO₂ and SAM by April 30, 20123. Multifos A and B Kilns (EU-036) will continue to operate with lower SO₂ and PM emission rates. A new scrubber will be installed to meet the lower SO₂ emission limits for Multifos A and B Kilns. The Multifos A and B Kilns shall comply with the new BART exemption limits for SO₂ and PM as expeditiously as practicable after JanuaryJuly 1, 2010, but no later than June 30, 2013. [Rule 62-296.340(5)(c) (escape BART), F.A.C. and Applicant's Request received October 3, 2008]

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

2. <u>Design Capacity</u>: The design capacity of each SAP, DAP Plant No. 1, MAP Plant, AFI Plant and the Multifos A and B Kilns shall not exceed the following:

EU ID No.	Plant Description	Design Production Capacity
-002	SAP No. 1	3,200 TPD of 100% H ₂ SO ₄
-003	SAP No. 2	3,200 TPD of 100% H ₂ SO ₄
-004	SAP No. 3	3,200 TPD of 100% H ₂ SO ₄
-009	DAP Plant No. 1	150 TPH of MAP or DAP
-011	MAP Plant	50 TPH of MAP
-027	AFI Plant	120 TPH
-036	Multifos A and B Kilns, Dryer and	15 TPH process input rate to each Kiln and
	Blending Operation	150,000 tons per year (TPY) of multifos
		from both Kilns combined

[Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.]

3. Methods of Operation - Fuels: The DAP Plant No. 1, AFI Plant and the Multifos A and B Kilns dryers shall be fired by natural gas. The dryers can be fired with No. 6 fuel oil or better grade fuel oil (as defined in

Subsection B (Scenario B). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

Condition CC.20 in Permit 1050059-045-AV) only during periods of natural gas curtailment. The permittee shall submit official document from the natural gas pipeline vendor to the SWD Office for verification of natural gas curtailments. [Rules 62-4.070(1)&(3) (Reasonable Assurance) and Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.]

4. <u>Design Capacity & Permitted Production</u>: The permittee shall submit a statement from the responsible official within 30 days after the completion of all of the proposed work under this project. [Rules 62-4.160(2) and 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.]

AIR POLLUTION CONTROL TECHNOLOGIES & MEASURES

- 5. <u>SAP SO₂ Controls</u>: This BART exemption determination <u>does</u> require new, modified or additional air pollution control systems for SO₂. To control emissions of sulfur dioxide (SO₂) from each SAP, the permittee shall continue the use of the existing double absorption system technology with vanadium and/or cesium catalyst in the converters and the use of good combustion practices & best operational practices to minimize excess emissions during startup and shutdown. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application]
- 6. <u>Proposed Work</u>: The applicant is requiredauthorized to perform the following specific work activities under this project in order to escape BART:

EU ID	Work Activities		
No.			
-002	 Increase the catalyst loading ratio from approximately 147 liters per ton H₂SO₄ per day (L/TPD) at 3,400 TPD production rate to approximately 190 L/TPD at 3,200 TPD production rate {increases the current catalyst loading from approximately 498,400 liters to 610,000 liters}; Install a heat recovery system (HRS) to replace the interpass absorption (IPA) tower; Replace the sulfur furnace; Replace the drying tower; and Install Brownian diffusion-type candles in the final absorption tower for SAM control. 		
-003	 Increase the catalyst loading ratio from approximately 147 L/TPD at 3,400 TPD production rate to approximately 213 L/TPD at 3,200 TPD production rate {increases the current catalyst loading from approximately 498,400 liters to 610,000 liters}; Install HRS to replace the IPA tower; Replace the sulfur furnace; Replace the drying tower; and Install Brownian diffusion-type candles in the final absorption tower for SAM control. 		
-004	 Increase the catalyst loading ratio from approximately 157 L/TPD at 3,400 TPD production rate to approximately 190 L/TPD at 3,200 TPD production rate {increases the current catalyst loading from approximately 535,200 liters to 610,000 liters}. 		
-036	 Install caustic scrubber for each of the Multifos A and B Kilns, Dryer and Blending Operation. 		

Higher catalyst loadings are allowed by this permit in order to meet the BART SO₂ emission limits. However, additional catalyst can only be used for SO₂ emissions reductions. The Brownian diffusion-type candles will be installed in the IPA tower which will become the final absorption tower after the reconfiguration. The candles will lower SAM emission rates from the two SAPs. A caustic scrubber is required for each Multifos A and B Kilns, Dryer and Blending Operation to meet the lower SO₂ emission

Subsection B (Scenario B). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

limits. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rules 62-4.160(2) and 62-4.070(1)&(3) (Reasonable Assurance), and, Proposed by the Applicant in the Application]

- 7. SO₂ Controls: The permittee shall use the specific catalyst loadings & types as cited in the study by the permittee's catalyst supplier in Appendix C of the Application. The specific catalyst loadings & types in Appendix C of the Application provide the permitting authority reasonable assurances of compliance with this permit. The study confirms that with the proposed modifications to each SAP, the SAPs can achieve the SO₂ emission rates of 3.0 lb SO₂/ton 100% H₂SO₄. Other specific catalyst types may be considered by the Bureau of Air Regulation upon written request. The permittee shall submit a written request for other specific catalyst loadings & types to the Bureau of Air Regulation with a copy to the Compliance Authority for review and approval prior to use. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rules 62-4.160(2) and 62-4.070(1)&(3) (Reasonable Assurance), F.A.C.; and, Proposed by the Applicant in the Application]
- 8. <u>SAP Acid Mist Controls</u>: This BART exemption determination <u>does</u> require new, modified or additional air pollution control systems for sulfuric acid mist (SAM). By controlling SAM emissions, PM/PM₁₀ and visible emissions are minimized. To control emissions of SAM, the permittee shall install Brownian diffusion-type candles on SAPs 1 and 2, similar to the one employed on SAP No. 3. Other SAM control technologies may be considered by the Bureau of Air Regulation upon written request. The permittee shall submit a written request for other SAM control technologies to the Bureau of Air Regulation with a copy to the Compliance Authority for review and approval prior to use. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application]
- 9. <u>Circumvention</u>: The permittee shall not circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

EMISSION STANDARDS & LIMITATIONS

10. <u>PM, NOx and SO₂ Standards</u>: Particulate matter, nitrogen oxides and sulfur dioxide emissions shall not exceed the following emissions standards.

EU ID No.	Emissions Unit Description	Emissions Standards		
		PM	NOx	SO_2
-002	No.1 Sulfuric Acid Plant		16 lb/hour ^a , a	400 lb/hour ^b , b
-003	No. 2 Sulfuric Acid Plant		16 lb/hour ^a , a	400 lb/hour ^b , b
-004	No. 3 Sulfuric Acid Plant		16 lb/hour ^a , a	400 lb/hour ^b , b
-009	DAP Plant No.1	15 lb/hour		Footnote "c"
-011	MAP Plant	7 lb/hour		
-027	AFI Plant	36.8 lb/hour		Footnote "c"
-036	Multifos A and B Kilns, Dryer and Blending Operation	25 lb/hour		25 lb/hour ^c , e

Footnotes:

a. Nitrogen oxides emissions from Nos. 1, 2, and 3 Sulfuric Acid Plants (EU-002, EU-003 and EU-004) shall not exceed 16 lb/hour based on a 3-hour average as determined by stack test data.

Subsection B (Scenario B). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

{eEquivalent to 0.12 lb/ton of 100% sulfuric acid at design capacity. The equivalent lb/ton values corresponding to the lb/hr limits are equal to the current existing standards. The equivalent tons per year (TPY) values for each SAP are 70.1 TPY. This permit requires stack test data to be used to demonstrate compliance. Compliance with the 3-hour average by stack test assures compliance with a numerical standard on a 24-hour (daily) average basis. The air dispersion modeling was performed using a 24-hour (daily) average.} based on a 3-hour average as determined by stack test data.

- b. Sulfur dioxide emissions from Nos. 1, 2, and 3 Sulfuric Acid Plants (EU-002, EU-003 and EU-004) shall not exceed 400 lb/hour {equivalent to 3.0 lb/ton of 100% sulfuric acid at design capacity} based on a 24-hour (daily) block CEMS average. A 24-hour (daily) block average was established based on the emission rate averaging period of 24-hour (daily) used in the air dispersion modeling. No stack testing is required.
 - {Equivalent to 3.0 lb/ton of 100% sulfuric acid at design capacity. The equivalent lb/ton values corresponding to the lb/hr limits are less than the current existing standards. The equivalent tons per year (TPY) values for each SAP are 1,752 TPY. This permit requires CEMS to be used to demonstrate compliance on a continuous basis on a 24-hour (daily) block average. A 24-hour (daily) block average was established based on the emission rate averaging period of 24-hour (daily) used in the air dispersion modeling.}
- c. To control sulfur dioxide emissions from the dryers, 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.20 in Permit 1050059-045-AV) may be fired as a fuel. [Rules 62-4.070(3) and 62-296.340(5)(c) (escape BART), F.A.C.]
- 11. Opacity Standards: Visible emissions from the Nos. 1, 2 and 3 Sulfuric Acid Plants (EU-002, EU-003 and EU-004) shall not exceed 10% opacity as determined by EPA Method 9. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. [Rule 62-296.340(5)(c) (escape BART), F.A.C.; and 40 CFR 60.83(a)2 and 40 CFR 60, Appendix A, Method 9]
- 12. <u>SO₂ Continuous Emissions Monitoring System (CEMS):</u> This BART exemption determination requires an SO₂ CEMS to be used to demonstrate continuous compliance with the SO₂ emission standards and limitations specified in this section.
 - a. In accordance with the NSPS (40 CFR 60, Subpart H) requirements for sulfuric acid plants, the permittee shall continue to properly calibrate, maintain, and operate a CEMS to measure and record emissions of SO₂.
 - b. A CEMS shall be properly calibrated, maintained, and operated to comply with: 40 CFR 60 Subpart A, General Provisions; 40 CFR 60 Appendix B, Performance Specification 2; and, 40 CFR 60, Appendix F, Quality Assurance Procedures for Gas CEMS Used for Compliance Determination.
 - c. The emissions data collected with the certified CEMS shall be used to demonstrate continuous compliance with the standards and limitations specified in this section.
 - [Rules 62-296.340(5)(c) (escape BART), 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.; and, Proposed by the Applicant in the Application]
- 13. <u>SAM Emission Standards & Limitations</u>: This BART determination specifies <u>new SAM</u> emission standards. Emissions of SAM shall not exceed the following as demonstrated by stack test data:

Subsection B (Scenario B). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

SAP No.	lb/hour
1	6.7
2	6.7
3	6.7

Emissions of SAM shall not exceed 6.7 pounds per hour for each of the three SAPs based on a 3-hour average as determined by stack test data.

{The equivalent lb SAM/ton 100% H₂SO₄ values for SAP Nos. 1, 2, and 3 at design capacity for each SAP is 0.05 lb SAM/ton 100% H₂SO₄. The equivalent lb/ton value corresponding to the lb/hour limits is less than the current existing standards. The equivalent tons per year (TPY) values for SAP Nos. 1, 2, and 3 is 29.3 TPY. This permit requires stack test data to be used to demonstrate compliance. Compliance with the 3-hour average by stack test assures compliance with a numerical standard on a 24-hour (daily) average basis. The air dispersion modeling was performed using a 24-hour (daily) average.}

[Rule 62-296.340(5)(c) (escape BART), F.A.C.; and, Proposed by the Applicant in the Application]

EXCESS EMISSIONS

- 14. 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.]
- 15. Excess Emissions Allowed: 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.]
- 16. 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.]
- 17. 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 application.
 - b. Best operational practices to minimize excess SO₂ and SO₃ 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 Appendix D Memorandum of Understanding Regarding Best Operational Start-up Practices for Sulfuric Acid Plants initially executed on October 25, 1989.

[Rule 62-296.340(5)(c) (escape BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application Title V permit no. 1050059-045-AV]

18. Best Operational Practices to Minimize Leaks of SO₂ and SO₃, or Other Fugitive Process Emissions: Best operational practices to minimize leaks of SO₂ and SO₃, or other fugitive process emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions. [Rules 62-4.070(1)&(3) and 62-296.320, F.A.C.]

EMISSIONS TESTING

Subsection B (Scenario B). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

19. <u>Test Methods</u>: The following reference methods (or more recent versions) shall be used to conduct any required emissions tests.

Method	Description of Method and Comments	
1 - 4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content	
5	Determination of PM Emissions from Stationary Sources	
6 or 6C	Determination of SO ₂ Emissions from Stationary Sources	
7E	Determination of NOx Emissions from Stationary Sources (Instrumental Analyzer Procedure)	
8	Determination of SAM & SO ₂ Emissions from Stationary Sources	
9	Visual Determination of Opacity from Stationary Sources	

EPA Methods 1, 2, 3, and 4, and 19 shall be used as necessary to support the other test methods. The above methods are described in 40 CFR 60, Appendix A, which is adopted by reference in Rule 62-204.800, F.A.C. No other methods shall be used without prior written approval from the Permitting Authority. [Rules 62-204.800 and 62-297.100, F.A.C.; and 40 CFR 60, Appendix A]

- 20. <u>Standard Testing Requirements</u>: All required emissions tests shall be conducted in accordance with the requirements specified in Appendix C (Standard Testing Requirements) of this permit. [Rules 62-204.800 and 62-297.100, F.A.C.; and 40 CFR 60, Appendix A]
- 21. <u>Compliance Test Schedule</u>: In accordance with the following schedule, the permittee shall have stack tests conducted to demonstrate compliance with the emissions standards specified in this permit.
 - a. Initial Test: On or before April 30, 20123, an initial test shall be conducted for NOx and SAM emissions from each SAP and PM emissions from DAP Plant No. 1, MAP Plant and the AFI Plant. On or before JuneApril 30, 20113, an initial test shall be conducted for SO₂ and PM emissions from Multifos A and B Kilns, Dryer and Blending Operation. The initial compliance test report for NOx, SO₂, SAM and PM shall be submitted within 45 days of completion of testing. [Rules 62-296.340(5)(c) (escape BART) and 62-297.310(7)(a)1, F.A.C.]
 - b. *Initial & Special Test*: A visible emissions (VE) test shall be conducted concurrently with one run of the SAM stack test to demonstrate initial compliance with the existing VE standards after the proposed work has been completed for each SAP. The VE test results shall be submitted with the SAM stack test report. [Rules 62-4.070(1)&(3) and 62-297.310(7)(b), F.A.C.]
 - e. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the permittee shall conduct the following compliance tests.
 - (i). The permittee shall conduct NOx, SAM and visible emissions tests on the Nos. 1, 2 and 3 Sulfuric Acid Plants (EU-002, EU-003 and EU-004) in accordance with EPA Methods 7E, 8 and 9 to demonstrate compliance with the NOx, SAM and opacity standard, respectively.
 - (ii). To demonstrate compliance with the PM standards, the permittee shall conduct tests in accordance with EPA Method 5 on DAP Plant No. 1 (EU-009), MAP Plant (EU-011), AFI Plant (EU-027) and Multifos A and B Kilns, Dryer and Blending Operation (EU-036).
 - (iii). To demonstrate compliance with the SO₂ standards, the permittee shall conduct tests in accordance with EPA Method 6/6C on Multifos A and B Kilns, Dryer and Blending Operation (EU-036).

Subsection B (Scenario B). SAP Nos. 1, 2 and 3, DAP Plant No. 1, MAP Plant, AFI Plant and Multifos A & B Kilns, Dryer and Blending Operation

d. Tests Prior to Renewal: Within the 12-month period prior to renewing the Title V air operation permit, tests shall be conducted for SAM and NO_x emissions from each SAP.

[Rules 62-296.340(5)(c) (escape BART), and 62-297.310(7)(a)3, F.A.C.]

{Note: Under this permit SO₂ CEMS are required to demonstrate compliance on a continuous basis, therefore, no initial or annual compliance test for SO₂ is necessary on the SAPs.}

RECORDS & REPORTS

- 22. 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 SO₂ continuous emissions monitoring systems for continuous compliance demonstrations.} [Rules 62-296.402(5) and 62-213.440(1)(b)2., F.A.C.]
- 23. <u>Construction Plan & Progress Reports:</u> The permittee shall submit a Construction Plan within thirtysixty (360) days of the effective date of this permit which shall contain the necessary milestones to comply with this permit. The Plan shall include at a minimum the necessary actions and corresponding scheduled due dates to complete those actions to comply with this permit.
 - a. The permittee shall submit progress reports based on the anniversary date (one year from the effective date) of this permit regarding the status of the milestones in the Construction Plan to the Department and to the Compliance Authority, no less than annually in 20092010 2013.
 - b. The permittee shall complete all required construction & modifications no later than June 30, 2013.

[Rules 62-296.340(5)(c) (escape BART), 62-4.070(1)&(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.]

JUN 1 1 2009

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF GENERAL COUNSEL

MOSAIC FERTILIZER LLC

Petitioner,

vs.

STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION,

Respor	idents.	

REQUEST FOR ENLARGEMENT OF TIME

By and through undersigned counsel, Mosaic Fertilizer, LLC ("Mosaic") hereby requests, pursuant to Florida Administrative Code Rule 62-110.106(4), an enlargement of time to and including August 1, 2009, in which to file a Petition for Administrative Proceedings in the above-styled matter. As good cause for granting this request, Mosaic states the following:

- 1. On or about May 28, 2009, Mosaic received from the Department of Environmental Protection ("Department") an "Intent to Issue Air Permit" and accompanying "Draft Permit" (Draft Permit No. 1050059-061-AC), for the New Wales facility, which is located at 3095 U.S. Highway 640, Mulberry, Polk County, Florida.
- 2. Based on Mosaic's initial review, the Draft Permit and associated documents contain several provisions that warrant clarification or corrections.
- 3. Mosaic and the Department are in the process of discussing possible resolutions to the issues needing clarification or correction. Mosaic will provide written

comments and suggested revisions to the Draft Permit in advance of the June 16, 2009, public comment deadline.

4. This request is filed simply as a protective measure to avoid waiver of Mosaic's right to challenge certain conditions contained in the Draft Permit. This request will allow the Department adequate time to review Mosaic's concerns and, in turn, give Mosaic adequate time to respond. To that end, Mosaic reserves the right to make additional comments to the Department. Grant of this request will not prejudice either party, but will further their mutual interests and hopefully avoid the need to file a Petition and proceed to a formal administrative hearing.

WHEREFORE, Mosaic Fertilizer, LLC respectfully requests that the time for filing of a Petition for Administrative Proceedings in regard to the Department's Intent to Issue Air Permit No. 1050059-061-AC be formally extended to and including August 1, 2009.

Respectfully submitted this 11th day of June, 2009.

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Attorneys for Petitioner, Mosaic Fertilizer, LLC

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by Hand Delivery to Lea Crandall, Agency Clerk, and Jack Chisholm, Deputy General Counsel, Florida Department of Environmental Protection, 3900 Commonwealth Boulevard, Room 659, Tallahassee, Florida 32399-3000, this 11th day of June, 2009.

Attorney Attorney