

Draft Permit

PERMITTEE

CF Industries, Inc.
Post Office Drawer L
Plant City, Florida 33564

Authorized Representative:
Herschel E. Morris, V.P. Phosphate Operations
General Manager of Plant City Phosphate Complex

Air Permit No 0570005-023-AC
Plant City Phosphate Complex
Facility ID No. 0530010
BART Project
Permit Expires: June 30, 2014

PLANT AND LOCATION

CF Industries, Inc. operates a chemical manufacturing facility, which is located at 10608 Paul Buchman Highway, Plant City, Hillsborough County. The project site is located about 70 kilometers from the Chassahowitzka National Wildlife Refuge, a Class I Area. The facility is an existing phosphate complex, which is identified by Standard Industrial Classification (SIC) code No. 2874. The UTM coordinates are Zone 17; 388 km E; 3116 km N.

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, 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 as the Best Available Retrofit Technology (BART).

EFFECTIVE DATE

Unless otherwise specified by this permit, the BART-eligible sources (emissions units) shall comply with the conditions of this permit as expeditiously as practicable, but not later than December 31, 2013 (BART compliance deadline). [Rule 62-296.340(3)(b)2., F.A.C.]

Executed in Tallahassee, Florida

(Draft)

Joseph Kahn, Director
Division of Air Resource Management

Effective Date

JK/tlv/aal/th

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

CF Industries uses local phosphate rock and imported sulfur and ammonia (NH₃) to produce phosphate fertilizers including diammonium phosphate (DAP) and monoammonium phosphate (MAP) at the Plant City Phosphate Complex.

Elemental sulfur is burned in furnaces and the resultant sulfur dioxide (SO₂) is catalytically and progressively converted to sulfur trioxide (SO₃) in the converter towers at the sulfuric acid plants (SAP). The SO₃ is absorbed in a circulating sulfuric acid solution.

Product sulfuric acid is used to acidulate phosphate rock to make phosphoric acid and waste gypsum slurry. The waste gypsum is permanently stacked. The phosphoric acid is reacted with other chemicals (primarily NH₃) to make DAP and MAP fertilizers for shipment.

FACILITY REGULATORY CLASSIFICATIONS

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate 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.

BART-ELIGIBLE EMISSIONS UNITS

This permitting action affects the following BART-eligible emissions units at the plant.

EU No.	Emissions Unit Description
002	Sulfuric Acid Plant A
003	Sulfuric Acid Plant B
007	Sulfuric Acid Plant C
008	Sulfuric Acid Plant D
010	Diammonium Phosphate/Monoammonium Phosphate Plant A
011	Diammonium Phosphate/Monoammonium Phosphate Plant X
012	Diammonium Phosphate/Monoammonium Phosphate Plant Y
013	Diammonium Phosphate/Monoammonium Phosphate Plant Z
015	Shipping Unit A Baghouse
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SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: 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 (phone number 850/488-0114).
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the **Compliance Authority, the Environmental Protection Commission of Hillsborough County (EPCHC)**. The Compliance Authority's mailing address is:

Environmental Protection Commission Hillsborough County
3629 Queen Palm Drive
Tampa, Florida 33619
Telephone: 813/627-2600, Fax: 813/627-2660

Copies of all such documents shall also be sent to the Department's Southwest District Office, 13051 N. Telecom Parkway, Temple Terrace, Florida 33637-0926.

3. Appendices: 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 (Best Operational Start-Up Practices for Sulfuric Acid Plants).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to 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. Title V Permit: 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 operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V 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 appropriate **Permitting Authority, the Florida Department of Environmental Protection, Southwest District Office which is different from the Office cited in Condition No. 1** 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 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. Annual Operating Report (AOR): 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 March 1st of each year. [Rule 62-210.370(3), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Sulfuric Acid Plants (SAP) A, B, C and D (EU 002, 003, 007 and 008)

This subsection addresses the following affected emissions units:

EU No.	Emission Unit Description
002	SAP A – 1300 tons per day (TPD) of 100% H ₂ SO ₄ produced
003	SAP B – 1600 tons per day (TPD) of 100% H ₂ SO ₄ produced
007	SAP C – 2,962 tons per day (TPD) of 100% H ₂ SO ₄ produced
008	SAP D – 2,962 tons per day (TPD) of 100% H ₂ SO ₄ produced

{Permitting notes: The SAP are currently 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(7)(b)10., F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), PSD-FL-339 (0570005-019-AC; PSD-FL-355 (0570005-021-AC); Rule 62-296.402, F.A.C., Sulfuric Acid Plants; and, Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards.}

Pursuant to Rule 62-296.340 (BART), F.A.C., the following standards represent the Best Available Retrofit Technology. These standards apply to each BART-eligible unit and are in addition to any other applicable standards.

AIR POLLUTION CONTROL TECHNOLOGIES & MEASURES

1. SO₂, PM/PM₁₀ & Visible Emissions (VE) Controls:

- To control emissions of sulfur dioxide (SO₂) from SAP A, the permittee shall continue the use of the existing single stage absorption system with ammonia (NH₃) scrubbing and may modify the converter tower as necessary including addition of cesium promoted vanadium catalyst to the final (fourth) converter bed as needed to meet the applicable emission limit.
- To control emissions of SO₂ from SAP B, the permittee shall continue the use of the existing single stage absorption system with NH₃ scrubbing and cesium promoted vanadium catalyst in the fourth converter bed.
- To control emissions of sulfur dioxide SO₂ from SAP C and D, the permittee shall continue the use of the existing double staged absorption system and cesium promoted vanadium catalyst in the fourth converter beds.
- The applicant shall use good combustion practices and best operational practices to minimize excess emissions during startup and shutdown.
- To control emissions of PM/PM₁₀ and VE from SAP B, C and D, the permittee shall use the existing high efficiency packed-fiber mist eliminator systems to meet the sulfuric acid mist (SAM) and VE emission limits given below.
- To further control direct emissions of PM/PM₁₀ and VE from SAP A, the permittee shall use the existing high efficiency packed fiber mist eliminator system or upgrade it as necessary to meet the SAM and VE emission limits given below.

[Rule 62-296.340 (BART), F.A.C.; permits PSD-FL-339, PSD-FL-339B and 355]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Sulfuric Acid Plants (SAP) A, B, C and D (EU 002, 003, 007 and 008)

2. NO_x Controls: This BART determination does not require new, modified or additional air pollution control systems for NO_x. To control NO_x from each SAP, the permittee shall continue the use of the existing combustion technology and the use of good combustion practices & best operational practices to minimize excess emissions during startup and shutdown. [Rule 62-296.340 (BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application]
3. Circumvention: 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.]

BART EMISSION STANDARDS & LIMITATIONS

4. SO₂ Emission Standards: This BART determination specifies a new set of SO₂ emission limits for SAP A. Emissions of SO₂ from the four SAP shall not exceed the following

EU	Source	Sulfur Dioxide (SO ₂) Emission Limits
002	SAP A ¹	3.50 lb SO ₂ /ton of 100% H ₂ SO ₄ and 190 lb/hr, 3-hour rolling average by CEMS
003	SAP B	3.50 lb SO ₂ /ton of 100% H ₂ SO ₄ and 233.3 lb/hr, 3-hour rolling average by CEMS
007	SAP C	3.25 lb SO ₂ /ton of 100% H ₂ SO ₄ and 401 lb/hr, 3-hour rolling average by CEMS
008	SAP D	3.25 lb SO ₂ /ton of 100% H ₂ SO ₄ and 401 lb/hr, 3-hour rolling average by CEMS

¹ The applicant is authorized to modify the converter tower and to install cesium promoted vanadium catalyst in the final (fourth bed) to comply with the new BART emission limit for SO₂.

[Rule 62-296.340 (BART), F.A.C.; permits PSD-FL-339, PSD-FL-339B and PSD-FL-355]

5. SO₂ Continuous Emissions Monitoring System (CEMS): This BART 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. In accordance with permits PSD-FL-339, PSD-FL-339B and PSD-FL-355 the permittee shall continue to use SO₂ CEMS data to demonstrate compliance.
 - b. Each SAP shall be equipped with a properly calibrated, maintained, and operated SO₂ CEMS to in compliance 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. The operating CEMS shall be certified as complying with these provisions.
 - 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 (BART), 62-4.070(3) (Reasonable Assurance), and 62-213.440(1) (Assurance of Compliance), F.A.C.]

6. PM/PM₁₀: Direct PM/PM₁₀ emissions (such as ammoniated sulfates) from SAP A and B are controlled by using sulfuric acid mist (SAM) limits as surrogates. This BART determination specifies a new set of SAM emission limits for SAP A. Emissions of SAM from SAP A and from SAP B shall not exceed 0.075 lb/ton 100% H₂SO₄ produced based on a 3-hour average as determined by stack test data from SAP A and B. Emissions of SAM from SAP A and SAP B shall not exceed 4.1 and 5.0 pounds per hour (lb/hr) respectively. Existing SAM limits for SAP C and D will not be changed and satisfy BART requirements. [Rule 62-296.340 (BART), F.A.C.; permits PSD-FL-339, PSD-FL-339B and PSD-FL-355]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Sulfuric Acid Plants (SAP) A, B, C and D (EU 002, 003, 007 and 008)

7. PM/PM₁₀ - Opacity (VE) Standard: As determined by EPA Method 9, visible emissions from the four SAP shall not exceed the current 10% opacity limits based on a 6-minute average. [Rule 62-296.340 (BART), F.A.C.; permits PSD-FL-339, PSD-FL-339B and PSD-FL-355]
8. NO_x Emission Standards: This BART determination specifies a new NO_x emission standard for Plant "A." Emissions of NO_x expressed as nitrogen dioxide (NO₂) from the four SAP shall not exceed the values in the following table:

Source	Nitrogen Oxides (NO _x as NO ₂) Emission Limits
SAP A	0.12 lb NO _x /ton of 100% H ₂ SO ₄ and 6.5 lb/hr, by 3-hr stack test every 5 years
SAP B	0.12 lb NO _x /ton of 100% H ₂ SO ₄ and 8.0 lb/hr, by 3-hr stack test every 5 years
SAP C	0.11 lb NO _x /ton of 100% H ₂ SO ₄ and 14.0 lb/hr, by 3-hr stack test every 5 years
SAP D	0.11 lb NO _x /ton of 100% H ₂ SO ₄ and 14.0 lb/hr, by 3-hr stack test every 5 years

[Rule 62-296.340 (BART), F.A.C.; permits PSD-FL-339, PSD-FL-339B and PSD-FL-355]

EXCESS EMISSIONS

9. 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.]
10. 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.]
11. 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.]
12. Best Operational Practices to Minimize Excess Emissions:
- 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.
 - 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 November 1, 1989.
- [Rule 62-296.340 (BART), F.A.C.; Rule 62-210.700(1), F.A.C.; and, Proposed by the Applicant in the Application]
13. 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(3) and 62-296.320, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Sulfuric Acid Plants (SAP) A, B, C and D (EU 002, 003, 007 and 008)

OPERATION & MAINTENANCE PLAN

14. Operation & Maintenance (O&M) Plan for BART Controls: The permittee is required to comply with an O&M Plan for the ammonia scrubbers at SAP A and SAP B. The permittee shall submit the O&M Plan with the Title V air operation permit request as required by Section 2., condition 5. of this permit. A requirement for the permittee to follow the O&M Plan shall be included in the Title V air operation permit. [Rule 62-296.340(3)(b)2. (BART), F.A.C.]

MONITORING REQUIREMENTS

15. Monitoring: The permittee shall monitor and record the scrubber pressure drop and liquid flow rate for all of the SAP at least once every 8-hour shift.

EMISSIONS TESTING

16. Test Methods: 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
7E	Determination of NO _x Emissions from Stationary Sources
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, 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]

17. Standard Testing Requirements: 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]
18. Compliance Test Schedule: 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 Tests*: Initial tests shall be conducted on SAP A for NO_x emissions by November 15, 2013 and submitted to the Compliance Authority within 45 days of completion of testing. [Rules 62-296.340 (BART) and 62-297.310(7)(a)1., F.A.C.]
 - b. *Annual Tests*: During each federal fiscal year (October 1st to September 30th), tests shall be conducted for VE from each SAP. [Rules 62-296.340 (BART) and 62-297.310(7)(a)4., F.A.C.]
 - c. *Tests Prior to Renewal*: Within the 12-month period prior to renewing the Title V air operation permit, tests shall be conducted for NO_x emissions. This represents a testing frequency of no less than every 5 years for NO_x emissions. [Rules 62-296.340 (BART) and 62-297.310(7)(a)3., F.A.C.]

{Note: When SO₂ CEMS are required to demonstrate compliance on a continuous basis, no initial or annual compliance tests are necessary.}

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Sulfuric Acid Plants (SAP) A, B, C and D (EU 002, 003, 007 and 008)

RECORDS & REPORTS

19. Records: The permittee shall maintain on-site records of the scrubber pressure drop and liquid flow rate recorded as required by specific condition 15. in this section. [Rules 62-296.340 (BART) and 62-4.070(3), F.A.C.]
20. 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.]
21. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future 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 the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Diammonium Phosphate/Monoammonium Phosphate Plans A, X, Y and Z (EU 010, 011, 012 and -013)

This subsection addresses four diammonium/monoammonium phosphate (DAP/MAP) plants. Each of the following emissions units consists of a reactor, granulator, aging belt (except for DAP/MAP Plant A), dryer, product cooler, mills, and screens.

EU No.	Emission Unit Description
010	DAP/MAP Plant A. 29.5/33.3 tons per hour (as P ₂ O ₅) diammonium/monoammonium phosphate plant
011	DAP/MAP Plant X. 48.7/55.0 tons per hour (as P ₂ O ₅) diammonium/monoammonium phosphate plant
012	DAP/MAP Plant Y. 48.7/55.0 tons per hour (as P ₂ O ₅) diammonium/monoammonium phosphate plant
013	DAP/MAP Plant Z. 48.7/55.0 tons per hour (as P ₂ O ₅) diammonium/monoammonium phosphate plant

{Permitting notes: These emissions units are regulated under NSPS - 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(7)(b)27., F.A.C. ("X" and "Y" Trains only); Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated July 6, 1989; Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; and Rule 62-296.403, F.A.C., Phosphate Processing; 40 CFR 63, Subpart A - General Provisions; 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants.}

Pursuant to rule 62-296.340 (BART), F.A.C., the following standards represent the best available retrofit technology. These standards apply to each BART-eligible unit and are in addition to any other applicable standards.

CONTROL EQUIPMENT AND METHODS

1. PM/PM₁₀ Controls: To control emissions of particulate matter (PM/PM₁₀), the permittee shall operate and maintain the existing process and pollution control technology for each of the DAP/MAP plants. The applicant is authorized to make improvements to the process and pollution control equipment for the purposes of reliably meeting the new BART PM/PM₁₀ emission limits given below.
[Rule 62-296.340 (BART), F.A.C.]
2. NO_x Controls: To control NO_x emissions from DAP/MAP Plants X, Y and Z, the permittee shall continue to use natural gas in the dryers with No. 2 fuel oil as backup. To control NO_x emissions from DAP/MAP Plant A, the permittee shall continue to use natural gas in the dryers with No. 2 fuel oil as backup.
[Rule 62-296.340 (BART), F.A.C.]

{Permitting Note: The only change is that previous permits allowed the use of No. 5 or better grade fuel oil as backup for DAP/MAP Plant A, whereas the BART determination specifies No. 2 fuel oil for backup purposes}.

3. Circumvention: 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.]

BART EMISSIONS STANDARDS

4. PM/PM₁₀ Emissions Standard for the DAP/MAP Plants: Emissions of particulate matter (PM) and particulate matter with a mean diameter of 10 microns or less (PM₁₀) shall not exceed the following limits based on the average of three test runs as determined by EPA Methods 5 and 201A.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Diammonium Phosphate/Monoammonium Phosphate Plans A, X, Y and Z (EU 010, 011, 012 and -013)

EU	Source	Particulate (PM/PM ₁₀) Emission Limits
010	DAP/MAP A	0.18 lb PM/PM ₁₀ /ton of P ₂ O ₅ input and 6.0 lb/hr by annual 3-hr stack test
011	DAP/MAP X	0.18 lb PM/PM ₁₀ /ton of P ₂ O ₅ input and 9.9 lb/hr by annual 3-hr stack test
012	DAP/MAP Y	0.18 lb PM/PM ₁₀ /ton of P ₂ O ₅ input and 9.9 lb/hr by annual 3-hr stack test
013	DAP/MAP Z	0.18 lb PM/PM ₁₀ /ton of P ₂ O ₅ input and 9.9 lb/hr by annual 3-hr stack test

[Rule 62-296.340 (BART), F.A.C.]

EXCESS EMISSIONS

5. 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.]
6. 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.]
7. 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.]

MONITORING REQUIREMENTS

8. Wet Scrubber Parameters: The permittee V shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the scrubbing system of each DAP/MAP plant. The monitoring device shall have an accuracy of ± 5 percent over its operating range. Additionally, the applicant shall continue to comply with any applicable monitoring requirements pursuant to 40 CFR 63, Subparts A and BB for DAP and MAP plants as well as any compliance assurance monitoring (CAM) plans and any approved alternative monitoring plans to the Subpart BB requirements. [Rule 62-296.340 (BART), F.A.C.; 40 CFR 60, Subpart V; 40 CFR 63 Subparts A and BB]

EMISSIONS TESTING

9. Test Methods: 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
201A	Determination of PM with a Mean Diameter of 10 Microns or Less (PM ₁₀)

EPA Methods 1, 2, 3, 4, and 5 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]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Diammonium Phosphate/Monoammonium Phosphate Plans A, X, Y and Z (EU 010, 011, 012 and -013)

10. Standard Testing Requirements: 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]
11. Compliance Test Schedule: 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 Tests*: Initial tests shall be conducted for PM/PM₁₀ by January 1, 2014. [Rules 62-296.340 (BART) and 62-297.310(7)(a)1, F.A.C.]
 - b. *Annual Tests*: During each federal fiscal year (October 1st to September 30th), tests shall be conducted for PM/PM₁₀ and VE. [Rules 62-296.340 (BART) and 62-297.310(7)(a)4, F.A.C.]
 - c. *Tests Prior to Renewal*: Within the 12-month period prior to renewing the Title V air operation permit, tests shall be conducted for PM₁₀ and VE. [Rules 62-296.340 (BART) and 62-297.310(7)(a)3, F.A.C.]

RECORDS AND REPORTS

12. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future 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 the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
13. Operation and Maintenance Requirements for BART Controls: The requirements related to operation and maintenance requirements are stated in the facility Title V operation permit 0570005-017-AV. This permit does not change or supersede any of those requirements. [Rule 62-296.340(3)(b)2, F.A.C.]
14. Records: The permittee shall comply with the records requirements stated in the facility Title V operation Permit. [Rule 62-4.070(3) F.A.C]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

C. Shipping Units A and B (EU -015 and -018)

EU No.	Emission Unit Description
015	Shipping Unit A Baghouse
018	Shipping Unit B Baghouse

Pursuant to rule 62-296.340 (BART), F.A.C., the following standards represent the best available retrofit technology. These standards apply to each BART-eligible unit and are in addition to any other applicable standards.

CONTROL EQUIPMENT AND METHODS

1. PM/PM₁₀ Controls: To control emissions of particulate matter (PM/PM₁₀), the permittee shall operate and maintain the existing control equipment in place for each of these Shipping Units. No additional BART determination need to be conducted since the existing control equipment complies with the BAR requirement. These units are each controlled by a Mikro-Pulsaire high efficiency baghouse. [Rule 62-296.340 (BART), F.A.C., and PSD-FL-355]
2. Circumvention: 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.]

BART EMISSIONS STANDARDS

3. Particulate Matter Emissions Limit:
 - a. Particulate matter emissions from the Shipping Units A and B baghouse exhausts shall not exceed 1.71 pounds per hour each. Due to the expense and complexity of conducting a stack test on a minor source of particulate matter, and because these emission units are equipped with baghouse dust control devices, the Department, in accordance with the authority granted under Rule 62-297.620(4), F.A.C., hereby establishes visible emission limitations not to exceed an opacity of 5% for the Shipping Units A and B baghouse exhausts in lieu of particulate matter stack tests.
 - b. Each baghouse control system shall be maintained to achieve an outlet grain loading of no more than 0.02 grains per actual cubic feet (gr./acf) for a nominal flow rate of approximately 10,000 actual cubic feet per minute (acfm). New and replacement bags shall meet these specifications based on vendor information. The permittee shall maintain records of the design specifications for the bags.[Rules 62-296.700(2)(b) and 62-297.620(4), F.A.C.]
4. Visible Emissions Standard of 5% Opacity: Visible emissions shall be tested as shown below:
 - a. *Initial Tests*: January 1, 2014, initial tests shall be conducted for VE. [Rules 62-296.340 (BART) and 62-297.310(7)(a)1, F.A.C.]
 - b. *Annual Tests*: During each federal fiscal year (October 1st to September 30th), tests shall be conducted for VE. [Rules 62-296.340 (BART) and 62-297.310(7)(a)4, F.A.C.][Rules 62-297.310(7)(a)4., 62-296.340 (BART), F.A.C and Title V Permit 0570005-017-AV)

EXCESS EMISSIONS

5. 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.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

C. Shipping Units A and B (EU -015 and -018)

6. 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.]
7. 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.]

EMISSIONS PERFORMANCE TESTING

8. Test Methods: Visible Emissions as determined by EPA Method 9. No particulate matter stack emissions tests are required as states in Title V permit 0570005-017-AV. [Rule 62-297.620(4) and 62-4.070(3), F.A.C., Application No. 0570005-021-AC, PSD-FL-355]
9. Standard Testing Requirements: 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]
10. Compliance Test Schedule: 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 Tests*: On or before January 1, 2014, initial tests shall be conducted for VE.
 - b. *Annual Tests*: During each federal fiscal year (October 1st to September 30th), tests shall be conducted for VE.
 - c. *Tests Prior to Renewal*: Within the 12-month period prior to renewing the Title V air operation permit, tests shall be conducted for VE.[Rules 62-296.340 (BART) and 62-297.310(7)(a), F.A.C.]

RECORDS AND REPORTS

11. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future 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 the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
12. Baghouse Operation and Maintenance Requirements for BART Controls: The requirements related to operation and maintenance requirements of these baghouses are stated in Title V permit 0570005-017-AV. This permit does not change or supersede any of those requirements. The operation and maintenance logs shall be submitted to the Compliance Authority upon request. [Rules 62-4.070(3) and 62-296.340(3)(b)2, F.A.C.]
13. Records: The permittee shall comply with the records requirements stated in the facility Title V operation permit. [Rule 62-4.070(3) F.A.C.]