FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

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SECRETARY

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE

White Springs Agricultural Chemicals, Inc.
P. O. Box 300
White Springs, Florida 32096

Authorized Representative:
Mr. Terry L. Baker, General Manager

Air Permit No. 0470002-079-AC
Permit Expires: xx/xx, 2015

Suwannee River/Swift Creek Complex
Minor Source Air Construction Permit
Modifications to EU008 & EU032

This is the final air construction permit, which authorizes the streamlining of recordkeeping for EUs 008 "Y" Train and EU032 "Z" Train to limit the capacity based on P_2O_5 feed input; to allow flexibility to operate with an ammonia vaporizer on EUs 008 and 032; to add a temporary, portable Ammoniated Polyphosphate Plant to manufacture liquid fertilizer to the Unregulated List; to allow the tail gas scrubber pressure drop for EU032 to be reported based on the entire scrubber; The facility will conduct a test to determine the feasibility of using re-circulating fresh water liquid stream to be cooled with non contact heat exchangers in lieu of the once through pond water currently used on the dryer cooler scrubbers in the MAP plants. If the feasibility test is successful, the facility will began construction to change the scrubber liquid in the EU032 "Z"-Train Reaction Cooler Scrubber, "Z"-Train Dryer Cooler Scrubber, "Z"-Train Dust Cooler Scrubber, EU008 "Y"-Train Reaction Cooler Scrubber, "Y"-Train Fluorine Abatement Scrubber from once-through pond water to re-circulating fresh water for EUs 008 and 032; the addition of heat exchanger(s) and water tanks for the indirect contact cooling of the re-circulating water. The proposed work will be conducted at the Suwannee River/Swift Creek Complex, which is a phosphate mining and chemical production facility (Standard Industrial Classification No. 2874). The facility is located in Hamilton County at 15843 SE 78th Street, White Springs, Florida. The UTM coordinates are Zone 17, 328.3 km East and 3368.8 km North; and, Latitude: 30° 26' 27" North and Longitude: 82° 47' 16" West. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections.

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution 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.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Jacksonville, Florida

(DRAFT)

_____

Khalid A. Al-Nahdy, P.E.
District Program Administrator

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on _____ to the persons listed below.

Mr. Terry L. Baker, General Manager- White Springs Agricultural Chemicals, Inc. (tbaker@pcsphosphate.com)
Pradeep Raval, Koogler and Associates (praval@kooglerassociates.com)
John Koogler, Ph.D., P.E. -Koogler and Associates (jkoogler@kooglerassociates.com)
Bill Ellis, White Springs Agricultural Chemicals, Inc. (wjellis@pcsphosphate.com)
Ms. Ana Oquendo, EPA Region 4: (oquendo.ana@epamail.epa.gov)
Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

(DRAFT)

_____ _____

(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This facility processes phosphate rock to produce several products at the Suwannee River/Swift Creek Complex (two plants). The facility consists of one rock grinder, two phosphoric acid plants, two defluorinated phosphate (DFP) plants, one monocal/dical process, two monoammonium/diammonium phosphate (MAP/DAP) plants, one Storage and Shipping building, one screening/shipping building, four sulfuric acid plants, two phosphoric acid filters, three superphosphoric acid plants, one green superphosphoric plant, the Swift Creek Mine (SCM) rock dryer, and one acid clarification plant. The facility also has storage silos associated with the Swift Creek Mine and the DFP plant.

Proposed Project

This project is for an air construction permit, which authorizes the streamlining of recordkeeping for EUs 008 "Y" Train and EU032 "Z" Train to limit the capacity based on P_2O_5 input; to allow flexibility to operate with an ammonia vaporizer on EUs 008 and 032; to add a temporary, portable Ammoniated Polyphosphate Plant to manufacture liquid fertilizer to the Unregulated List; to allow the tail gas scrubber pressure drop for EU032 to be reported based on the entire scrubber; The facility will conduct a test to determine the feasibility of using re-circulating fresh water liquid stream to be cooled with non contact heat exchangers in lieu of the once through pond water currently used on the dryer cooler scrubbers in the MAP plants. If the feasibility test is successful, the facility will began construction to change the scrubber liquid in the EU032 "Z"-Train Reaction Cooler Scrubber, "Z"-Train Dryer Cooler Scrubber, "Z"-Train Dust Cooler Scrubber, EU008 "Y"-Train Reaction Cooler Scrubber, "Y"-Train Fluorine Abatement Scrubber from once-through pond water to re-circulating fresh water for EUs 008 and 032; the addition of heat exchanger(s) and water tanks for the indirect contact cooling of the re-circulating water.

This project will modify the following emissions units.

Facility ID No. 0470002	
ID No.	**Emission Unit Description**
008	"Y" Train-#1 MAP/DAP Plant
032	"Z"-Train #2 MAP/ DAP

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

1. Permitting and Compliance Authority: The permitting authority for this project is the Northeast District, Florida Department of Environmental Protection (Department). The Northeast District Office's mailing address is 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, 904) 256-1700. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District Office.

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

   a. Appendix A. Citation Formats and Glossary of Common Terms;

   b. Appendix B. General Conditions;

   c. Appendix C. Common Conditions; and

   d. Appendix D. Common Testing Requirements. (if applicable)

3. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

5. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an 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.]

6. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

7. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.

   a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.

   b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

      1) The name, address and telephone number of the owner or operator of the major stationary source;

      2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;

      3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and

      4) Any other information that the owner or operator wishes to include in the report.

   c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

   For this project, the Department requires the annual reporting of actual FL and PM/PM_{10} emissions for the following units: Emissions Units 008 and 032.

   [Application 0470002-079-AC; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

This section of the permit addresses the following emissions unit:

ID No.	Emission Unit Description
008	"Y"-Train – No. 1 MAP/DAP Plant
032	"Z"-Train – No. 2 MAP/DAP Plant

EU008: The "Y" Train DAP/MAP Plant is permitted for input rate of 36.33 TPH of P_2O_5 feed (daily average) and 290,112 TPY of P_2O_5 input basis. The plant is capable of producing fertilizer by five different modes (Mode 1: DAP by Split Flows of 30% & 50% P_2O_5 phosphoric acid; Mode 2: DAP by 40% P_2O_5 acid; Mode 3: Triplesuperphosphate (TSP) – *no longer produced or permitted*; Mode 4: MAP by Split Flows of 30% & 50% P_2O_5 acid; Mode 5: MAP by 40% P_2O_5 acid; Mode 6: MAP by reacting ammonia and acid in two pipe reactors**.** The plant consists of the two separate pipe reactors (Mode 6), a tank reactor for the other modes, two pug mills, granulator, dryer, cooler, screens, mills, and other associated process equipment. Particulate matter, fluoride, and sulfur dioxide emissions are controlled by cyclones, venturi and cyclonic scrubbers. Emissions from the pipe reactors are vented to the reactor scrubber for ammonia removal and then to a scrubber for fluoride control. The permittee conducted testing on the pond water scrubbers for CAM applicability. CAM does not apply for this emissions unit. Fluoride emissions are covered by the 40 CFR 63 Subpart BB and testing was done by the permittee to show the pond water scrubbers are not designed for PM control.

{Permitting note(s): 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)28., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; 62-212.400, F.A.C., Prevention of Significant Deterioration; 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. The inclusion of project 0470002-050-AC makes EU 008 subject to 40 CFR 60 Subpart V for DAP production. **The Part 40 CFR 63 Subparts A and BB take precedence, however these units are subject to all applicable State Implementation Plan (SIP) rules if these units are out of compliance with the NESHAP**}.

EU032 Z-Train (#2 DAP Plant) with two emissions points (EP). The first EP is the main part of DAP process which is controlled by several cyclones followed by several cyclonic and venturi scrubbers (EP TG). The cooler (EP C) is controlled by a cyclone and a venturi scrubber. CAM does not apply for this emissions unit. The permittee conducted testing on the pond water scrubbers for CAM applicability for particulate matter. Fluoride emissions are covered by the 40 CFR 63 Subpart BB and testing was done by the permittee to show the pond water scrubbers are not designed for PM control.

{Permitting note(s): 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)28., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; 62-212.400, F.A.C., Prevention of Significant Deterioration; 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.

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

The Part 40 CFR 63 Subparts A and BB take precedence, however these units are subject to all applicable State Implementation Plan (SIP) rules if these units are out of compliance with the NESHAP}.

1. Relation to Other Permits. The conditions of this permit will supplement and comply with conditions of all existing, valid, Department permits.
[Rules 62-4.210, 62-4.030, and 62-210.300(1)(b), F.A.C.]

2. Feasibility Trial Test Period. The permittee is authorized to conduct a feasibility trial test to change the scrubber liquid in the dryer cooler scrubbers, reactor/pugmill cooler scrubbers and dust cooler scrubbers in the MAP plants from once-through pond water to re-circulating fresh water for EUs 008 and 032. The purpose of the is test is to determine the heat transfer rate, fouling factors and blow down rates required, and the capacity of the plant to consume the blow down. The characteristics of the re-circulation liquid will also be determined. This test will determine the most appropriate and effective way to remove the heat from the process.
[Application received on November 1, 2012]

3. Temporary Equipment. The permittee is authorized to construct, install, modify, and operate (for purposes of testing and unit shakedown) Plate and Frame Heat Exchangers, Scrubber Liquor Pumps, Scrubber Tanks, or similar capacity shell and tube Heat Exchanger if necessary.
[Application received on November 1, 2012]

4. Authorization. The initial test on the cooler scrubber circuit for EU032- "Z" Train will begin with a plate and frame heat exchanger. If the plate and frame heat exchanger is not feasible, then a multi-pass shell and tube unit will be used. Additional testing on EU008- "Y" Train dryer cooler scrubber circuit may be performed as deemed necessary.

It the feasibility test is successful, the facility will began construction to change the scrubber liquid in the dryer cooler scrubbers, reactor/pugmill cooler scrubbers and dust cooler scrubbers from once-through pond water to re-circulating fresh water for EUs 008-"Y" Train. An implementation period of at least 3-years will be required for this feasibility test, construction and the demonstrating of compliance.

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

5.a. Permitted Capacity EU008. The P_2O_5 input limit shall assure the production limits do not exceed any standards for Total Fluoride, SO_2, VE, PM/PM_{10} that are in all of the existing, valid, Department permits.

This project will replace the production rate with a P_2O_5 input feed rate that shall not exceed 36.33 tons per hour (daily average) and 290,112 TPY of P_2O_5 input basis.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit No. 0470002-034-AC; Construction Permit No. 0470002-050-AC; and Application received on November 1, 2012]

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

5.b. Permitted Capacity EU032. The P_2O_5 input limit shall assure the production limits do not exceed any standards for Total Fluoride, SO_2, VE, PM/PM_{10} that are in all of the existing, valid, Department permits.

This project will replace the production rate with a P_2O_5 input feed rate that shall not exceed 45.7 tons per hour daily average and 362,737 TPY P_2O_5 input.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit No. 0470002-032-AC; Construction Permit No. 0470002-034-AC; and Application received on November 1, 2012]

EMISSION LIMITATIONS AND STANDARDS

6.a. Methods of Operation (EU008). This permit does not authorize any changes to the current modes of operation for EU008.

Mode 1 -DAP (Diammonium Phosphate) produced by Split Acid (30% & 50% P_2O_5 INPUT) phosphoric acid.
Mode 2 - DAP (Diammonium Phosphate) produced by (40% P_2O_5 INPUT) phosphoric acid.
Mode 4 - MAP (Monoammonium Phosphate) produced by Split Acid (30% & 50% P_2O_5 INPUT) phosphoric acid.
Mode 5 - MAP (Monoammonium Phosphate) produced by (40% P_2O_5 INPUT) phosphoric acid.
Mode 6 – MAP produced by reacting ammonia and acid in two pipe reactors.

Only one of the five operating modes shall be in operation at one time. Process fuels fired are natural gas or fuel oil with a maximum sulfur content of 1.0%.

[Rule 62-213.410, F.A.C.; Construction Permit No. 0470002-050-AC]

6.b. Methods of Operation (EU032). This permit does not authorize any changes to the current modes of operation for EU032.

Mode 1 - DAP (Diammonium Phosphate) produced by Split Acid (30% & 50% P_2O_5 input) phosphoric acid.
Mode 2 - MAP (Monoammonium Phosphate) produced by Split Acid (30% & 50% P_2O_5 input) phosphoric acid.
Mode 3 - DAP (Diammonium Phosphate) produced by 40% P_2O_5 input phosphoric acid.
Mode 4 - MAP (Monoammonium Phosphate) produced by 40% P_2O_5 input phosphoric acid.
Mode 5 - MAP produced by reacting ammonia and acid in two pipe reactors. The Z-Train has been modified to allow the producing of granular MAP using a pipe reactor as an alternate to the tank reactor.

Process fuels fired are natural gas, fuel oil with a maximum sulfur content of 1.00%, or on-spec used oil with a maximum sulfur content of 1.00%.

[Rule 62-213.410, F.A.C.]

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

7. This permit does not change any or establish any of the emissions standards for Total Fluoride, SO_2, VE, PM that are in all of the existing, valid, Department permits.

8. Hours of Operation. The hours of operation for these emissions unit shall not exceed 8760 hours/year, (8784 in any Leap Year).

9. Ammonia Vaporizer (EU008 & 032). For flexibility purposes the facility is authorized to operate an ammonia vaporizer in order to use ammonia in liquid or vapor forms.

TESTING REQUIREMENTS

10. Trial Compliance Testing. During the trial compliance testing, the facility is allowed to switch back and forth between pond water and fresh water mode. If the facility has demonstrated compliance with a specific mode, they are allowed go back to that mode under those testing condition without retesting.

11. Test Schedule. At least thirty (30) days prior to conducting the compliance testing on the **final equipment**, the permittee shall submit a preliminary schedule detailing the test protocol. The permittee shall submit updates to the test protocol and schedule as necessary.

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

RECORDS AND REPORTS

12. Comply with recordkeeping and reporting requirements in the applicable conditions of all existing, valid, Department permits.

MONITORING REQUIREMENTS

13. Comply with monitoring requirements in the applicable conditions of all existing, valid, Department permits.

14. Tail Gas Scrubber Pressure Drop (EU032). The tail gas scrubber pressure drop shall be measured and reported based on the entire scrubber measurements and not separated by sections.

TESTING REQUIRMENTS

15. Particulate Matter/PM_{10}. Particulate Matter emissions stack test method shall be EPA Method 5 incorporated and adopted by reference in Chapter 62-297, F.A.C., and be performed annually once each federal fiscal year.

[Rule 62-296.320(4)(a), F.A.C.; Rule 62-297.310(7)(a)4.b., F.A.C.; Rule 62-297.401, F.A.C.]

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

16.a. <u>Total Fluorides</u>.

(a) The test method shall be EPA Method 13A or EPA Method 13B, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.

(b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rule 62-296.403(3), F.A.C.; Rule 62-297.401(13), F.A.C.]

16.b. <u>Total Fluorides Performance Testing</u>. The Permittee shall meet the 40 CFR 63 Subpart BB performance testing requirements:

(1) On or before the applicable compliance date in § 63.630 and once per annum thereafter, each owner or operator of a phosphate fertilizers production plant subject to the provisions of this subpart shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing diammonium and/or monoammonium phosphate process line, granular triple superphosphate process line, or granular triple superphosphate storage building. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.

(2) As required by § 63.7(a)(2) and once per annum thereafter, each owner or operator of a phosphate fertilizers production plant subject to the provisions of this subpart shall conduct a performance test to demonstrate compliance with the applicable emission standard for each new diammonium and/or monoammonium phosphate process line, granular triple superphosphate process line, or granular triple superphosphate storage building. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.

[40 CFR 63.626(a)]

16.c. In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR Part 60, Appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).

[40 CFR 63.626(b)]

16.d. <u>Total Fluorides</u>. Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line or granular triple superphosphate process line shall determine compliance with the applicable total fluorides standards in § 63.622 or § 63.623 as follows:

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

Specific Condition 16.d. continued:

$$E = \left(\sum_{i=1}^{N} \mathbf{C_{si}}\ \mathbf{Q_{sdi}}\right)/(PK)$$

(1) where:

E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P_2O_5 feed.
C_{si} = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).
Q_{sdi} = volumetric flow rate of effluent gas from emission point ``i," dscm/hr (dscf/hr).
N = number of emission points associated with the affected facility.
P = equivalent P_2O_5 feed rate, metric ton/hr (ton/hr).
K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (C_{si}) and volumetric flow rate (Q_{sdi}) of the effluent gas from each of the emission points. If Method 13 B is used, the fusion of the filtered material described in section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in sections 7.3.3 and 7.3.4 in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least one hour and 0.85 dscm (30 dscf).

(3) The equivalent P_2O_5 feed rate (P) shall be computed using the following equation:

$$P = M_p\ R_p$$

where:

M_p = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).
R_p = P_2O_5 content, decimal fraction.

(i) The accountability system described in § 63.625(a) and (b) shall be used to determine the mass flow rate (M_p) of the phosphorus-bearing feed.

(ii) The P_2O_5 content (R_p) of the feed shall be determined using as appropriate the following methods (incorporated by reference- see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:

(A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method A-Volumetric Method.

(C) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method B-Gravimetric Quimociac Method.

(D) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method C-Spectrophotometric Method.

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

Specific Condition 16.d. continued:

(E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A-Volumetric Method.

(F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method B-Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C-Spectrophotometric Method.

(4) To comply with § 63.625(f)(1) or (2), the owner or operator shall use the monitoring systems in § 63.625(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 63.625(f)(1) or (2).

[40 CFR 63.626(c)]

MONITORING REQUIREMENTS

17. <u>Process Monitoring (EU008 and 032)</u>. For the trial, the plant will monitor the water feed rates and the P_2O_5 input rates daily.

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

18. <u>Revocation</u>- The Department may require the trial to change the scrubber liquid in the dryer cooler scrubbers, reactor/pugmill cooler scrubbers and dust cooler scrubbers to stop if:

a) The change in scrubber liquid causes frequent upsets to EUs 008-"Y" Train and 032-"Z" Train operation resulting in frequent unsteady state operation; or

b) EUs 008-"Y" Train and 032-"Z" Train are unable to comply with the emissions standards in the Title V air operation permit.

[Rule 62-210.200(PTE), F.A.C.]

A. EU008 "Y"-Train No. 1 MAP/DAP Plant and EU032 "Z"-Train – No. 2 MAP/DAP Plant

19. Upsets. If an upset condition causes EUs 008-"Y" Train and 032-"Z" Train to have an unsteady state operation, the permittee shall record each incident and identify the cause of the upset as well as the corrective action taken.

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

20. Trial Burn Summary Report. Within 90-days of completing the trial, PCS shall submit a report to DEP summarizing: problems with heat transfer rate, fouling factors and blow down rates; the emissions monitoring data; and a conclusion as to the feasibility and practicality of switching from once-through pond water to re-circulating fresh water for EUs 008 and 032. The report shall identify any problem that occurred during the trial and the expected cause of the problem.

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

21. Equipment Information Submittal. Within 15 days of installation of the final plate and frame heat exchangers, scrubber liquor pumps, scrubber tanks, or similar capacity shell and tube heat exchangers, the permittee shall submit the specific vendor information to the Department in a written or electronic format: Manufacturer's names, model no.(s) and etc for all installed equipment.

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

22. The facility is subject to the attached Section 4 Appendix C requirements.