



Florida Department of Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

PERMITTEE

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

Authorized Representative:
William L. Donohue, General Manager

Air Permit No. 0470002-111-AC
Permit Expires: **12/01/2022**
Minor Air Construction Permit

Suwannee River/Swift Creek
Complex
Maintenance for the existing
sulfuric acid plants "E" and "F"

PROJECT

This is the final air construction permit, which authorizes the repair/replacement and maintenance for the existing sulfuric acid plants "E" and "F". 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. 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.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and 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.

STATEMENT OF BASIS

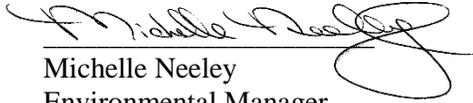
This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the 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.

FINAL PERMIT

Executed in Jacksonville, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Michelle Neeley
Environmental Manager
Permitting Program

MN/lm

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

William L. Donohue, General Manager - White Springs Agricultural Chemicals, Inc. dba PCS Phosphate, White Springs, (bdonohue@pcsphosphate.com)

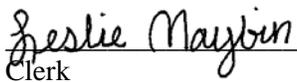
David Still, Manager Environmental Affairs - White Springs Agricultural Chemicals, Inc. dba PCS Phosphate, White Springs, (DASstill@potashcorp.com)

Veronica Sgro, P. E. – Koogler and Associates, Inc., (vsgro@kooglerassociates.com)

Christopher Kirts – Department of Environmental Protection, Compliance Assurance Section (Christopher.Kirts@dep.state.fl.us)

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

December 1, 2017
Date

SECTION 1. GENERAL INFORMATION (FINAL)

FACILITY DESCRIPTION

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

The existing facility consists of the following emissions units.

<u>E.U. ID No.</u>	<u>Brief Description</u>
004	“X”-Train (Monocal/Dical process)
008	“Y” Train-#1 MAP/DAP Plant
010	#1 Storage and Shipping Building
015	Granular Product Shipping and Screening Facility
020	“B” Phosphoric Acid Plant
032	“Z”-Train #2 MAP/ DAP
034	South Phosphoric Acid Filter
035	North Phosphoric Acid Filter
036	“B” Superphosphoric Acid Plant
039	“C” Auxiliary Boiler
040	“D” Auxiliary Boiler
054	Molten Sulfur System
061	Green Superphosphoric Plant
066	“E” Sulfuric Acid Plant
067	“F” Sulfuric Acid Plant
068	“E” Auxiliary Boiler
069	“D” Phosphoric Acid Plant
070	“C” and “D” Superphosphoric Acid Plants
071	Acid Clarification Plant
072	Molten Sulfur System for “E” & “F” Sulfuric Acid Plants
075	Relocatable Concrete Batch Plant
076	15 Emergency Engines
077	Emergency Rental Boiler
080	(Two) 4.25 MMBtu/hr. Boilers
081, 082	Gypsum Dewatering Stack, and Cooling Ponds

PROPOSED PROJECT

Air construction permit, which authorizes the repair/replacement and maintenance for the existing sulfuric acid plants “E” and “F”.

The list of items for each EU066 “E” and EU067 “F” Sulfuric Acid Plants includes the following components along with associated pumps, piping, instrumentation and ductwork:

- Sulfur Tank
- Boiler Feedwater Preheater
- Drying Tower Cooler

SECTION 1. GENERAL INFORMATION (FINAL)

- Inter-Pass Absorption Tower Cooler
- 96% Pump Tanks
- Salvage Water Tank
- SO₂ Emissions Monitoring Equipment
- Secondary Economizer
- Waste Heat Boiler (Heat exchanger)
- Inter-Pass Absorption Tower
- Acid Coolers

This project will modify the following emissions units.

EU No.	Emission Unit Description
066	"E" Sulfuric Acid Plant
067	"F" Sulfuric Acid Plant

FACILITY REGULATORY CLASSIFICATION

- 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 (CAA).
- The facility **is** a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility **is** a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- The facility **does** operate units subject to the New Source Performance Standards (NSPS) of Title 40 Part 60 of the Code of Federal Regulations (40 CFR 60). 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (FINAL)

1. Permitting Authority: The permitting authority for this project is the Northeast District Office, Permitting Program, 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. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office (Compliance Assurance) at: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, (904) 256-1700.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).
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 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.
5. 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.]
6. 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.]
7. Construction and Expiration: The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(3) & (4), 62-4.080 & 62-210.300(1), F.A.C.]
8. 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.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (FINAL)

- 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.]

9. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. 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 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 with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050 and Chapter 62-213, F.A.C.]

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
066	<p>“E” Sulfuric Acid Plant.</p> <p>“E” Sulfuric Acid Plant is a double absorption process that produces sulfuric acid and controls sulfur dioxide (SO₂) emissions. The emissions unit uses a Brinks mist eliminator to control sulfuric acid mist (SAM). CAM does not apply for sulfur dioxide for this emissions unit. The Drying Tower is an all-alloy tower, and this unit has a single Heat Exchanger (as per the changes in Air Construction Permit No. 0470002-065-AC).</p> <p>{Permitting note(s): This emissions unit is regulated under NSPS - 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid, adopted and incorporated by reference in Rule 62-204.800(8)(b)12., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); Permit No. PSD-FL-082; and Rule 296.402, F.A.C., Sulfuric Acid Plants.}</p>
067	<p>“F” Sulfuric Acid Plant.</p> <p>“F” Sulfuric Acid Plant is a double absorption process that produces sulfuric acid and controls sulfur dioxide (SO₂) emissions. The emissions unit uses a Brinks mist eliminator to control sulfuric acid mist (SAM). CAM does not apply for sulfur dioxide for this emissions unit.</p> <p>{Permitting note(s): This emissions unit is regulated under NSPS - 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid, adopted and incorporated by reference in Rule 62-204.800(8)(b)12., F.A.C.; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 296.402, F.A.C., Sulfuric Acid Plants.}</p>

EQUIPMENT

1. Relation to Other Permits: The conditions of this permit supplements all other previously issued air construction and operation permits for these emissions units. These conditions are in addition to all other applicable permit conditions and regulatory requirements. The Permittee shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, recordkeeping, reporting, and the like.
[Rules 62-4.210, 62-4.030, and 62-210.300(1)(b), F.A.C.]

PROPOSED CONSTRUCTION WORK

2. The permittee is authorized to allow maintenance of deteriorated plant components either by repairing or replacing, as needed, in the existing EU066 “E” and EU067 “F” Sulfuric Acid Plants.

The list of items for each EU066 “E” and EU067 “F” Sulfuric Acid Plants includes the following components along with associated pumps, piping, instrumentation and ductwork:

- Sulfur Tank,
- Boiler Feedwater Preheater,
- Drying Tower Cooler,
- Inter-Pass Absorption Tower Cooler,
- 96% Pump Tanks,

Specific Condition No. 2 Continued:

- Salvage Water Tank,
- SO₂ Emissions Monitoring Equipment,
- Secondary Economizer,
- Waste Heat Boiler (Heat exchanger),
- Inter-Pass Absorption Tower, and
- Acid Coolers.

Replacement components are expected to be like-kind or equivalent, depending on the vendor. The size and materials of construction of the replacement component can vary somewhat based on changes in equipment design over time. This permit does not authorize any increases in plant production or air emissions.

The construction shall be in accordance with the application and associated documents provided to the Permitting Authority for the issuance of this permit. Any changes to the project that are contrary to these documents and permit shall be reported in writing to the Permitting Authority by the P.E. of Record.

[Air Construction Permit Application No. 0470002-111-AC]

PERFORMANCE RESTRICTIONS

3. Permitted Capacity: This permit does not authorize any changes to the permitted capacities of EU066 “E” and EU067 “F” Sulfuric Acid Plants.

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

4. Restricted Operation: The hours of operation are not limited 8760 hours per year (8784 in any Leap Year).

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

5. Emissions Standards: This permit **does not** authorize any changes to the emissions rates of EU066 “E” and EU067 “F” Sulfuric Acid Plant from the previous permits.

[Application No. 0470002-111-AC; and Rule 62-210.200(PTE), F.A.C.]

TESTING REQUIREMENTS

6. Cooler Repairs/Replacements Compliance Tests: Each time one of the coolers, as listed in **Specific Condition No. 2**, is repaired/replaced; the affected sulfuric acid plants (i.e., SAPs “E” or “F”) shall be tested to demonstrate compliance with the emissions standards for Sulfur Dioxide (SO₂), Sulfuric Acid Mist (Acid Mist) and Visible Emissions (VE). The tests shall be conducted no later than 180-days after initial operation of the unit following the replacement of each cooler. However, if this date is close to the next scheduled compliance testing date for the Emissions Unit, the facility can demonstrate initial compliance at that time.

[Rules 62-4.070(3) and 62-297.310(8)(b)1, F.A.C.]

7. Annual Compliance Tests: During every calendar year (January 1 – December 31) the sulfuric acid plants (SAPs “E” and “F”) shall be tested to demonstrate compliance with the emissions standards for Sulfur Dioxide (SO₂), Sulfuric Acid Mist (Acid Mist), and Visible emissions (VE). Testing procedures shall be consistent with the requirements of Chapter 62-297, F.A.C.

[Rules 62-296.402 and 62-297.310(8)(a)1, F.A.C.]

8. **Test Requirements:** The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(9), F.A.C.]
9. **Test Methods:** Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in Appendices A-1 through A-4 of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, F.A.C.; and Appendices A-1 through A-4 of 40 CFR 60]

RECORDS, MONITORING REQUIREMENTS AND REPORTS

10. The Permittee shall comply with recordkeeping and reporting requirements in the applicable conditions of all existing, valid, Department permits.
11. **Cooler Repairs/Replacements Records:** The permittee shall maintain records listing all cooler repairs/replacements listed in **Specific Condition No. 2**. The records should include the emissions unit number, the name of the cooler to be repaired/replaced, the date the repaired/replacement occurs, and general specifications for the old cooler and for the repaired/replacement cooler (i.e., heat transfer area, number of tubes/tube length, and shell diameter). The records shall be kept in a readily accessible location.

[Rule 62-4.070, F.A.C.]

12. **Commencement of Construction:** The permittee shall submit to the Air Compliance Authority of this Office written notification of both the date of commencement of construction and the date of startup of the replacement of any one of the **EU066 “E”** and **EU067 “F”** SAP Coolers listed in **Specific Condition No. 2**. This notification shall be submitted or postmarked within as many days prior to the date of construction/startup as practical, but no later than thirty (30) business day following commencement of construction/startup to Christopher.Kirts@dep.state.fl.us.

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