Department of Environmental Protection

Division of Air Resources Management

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BUREAU OF AIR REGULATION

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **White Springs Agricultural Chemicals, Inc.**	
2. Site Name: **Suwannee River and Swift Creek Complex**	
3. Facility Identification Number: **0470002** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **E of SR 137, E of US 41, N of White Springs** City: **White Springs** County: **Hamilton** Zip Code: **32096**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **Pradeep Raval, Project Engineer**
2. Application Contact Mailing Address: Organization/Firm: **Koogler & Associates** Street Address: **4014 N.W. 13th Street** City: **Gainesville** State: **FL** Zip Code: **32609**
3. Application Contact Telephone Numbers: Telephone: **(352) 377-5822** Fax: **(352) 377-7158**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	7-26-00
2. Permit Number:	047 0002 - 039 - AC
3. PSD Number (if applicable):	PSD-FL-297
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number:_____

Operation permit number to be revised:_____

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected:_____

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
Vernon J. Lloyd, VP-Production

2. Owner/Authorized Representative or Responsible Official Mailing Address:
Organization/Firm: **White Springs Agricultural Chemicals, Inc.**
Street Address: **P.O. Box 300**
City: **White Springs** State: **FL** Zip Code: **32096**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
Telephone: **(904) 397-8101** Fax: **(904) 397-1026**

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

Vernon J. Lloyd — Signature

7/24/00 — Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D., P.E.**
Registration Number: **12925**

2. Professional Engineer Mailing Address:
Organization/Firm: **Koogler & Associates**
Street Address: **4014 N.W. 13th Street**
City: **Gainesville** State: **FL** Zip Code: **32609**

3. Professional Engineer Telephone Numbers:
Telephone: **(352) 377-5822** Fax: **(352) 377-7158**

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature

7/20/00
Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
004	X Train	AC1A	7500
020	B Phosphoric Acid Plant	AC1A	-
069	D Phosphoric Acid Plant	AC1A	-
070	C&D Superphosphoric Acid Plant	AC1A	-
071	Acid Clarification Plant	AC1A	-

Application Processing Fee

Check one: [X] Attached - Amount: **$7500** [ ] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

WSAC proposes to reallocate the phosphoric acid production capability amongst the existing plants at Suwannee River and Swift Creek Chemical Complex. The A and C Phosphoric Acid Plants will be permanently shut down; the production rate of the B Phosphoric Acid Plant will be increased to 100 tph P2O5 input and the plant will be converted to a hemi-hydrate process; the production rate of the D Phosphoric Acid Plant will be increased to 110 tph P2O5 input. This reallocation will result in an increase in the processing rates of the Acid Clarification Plant and the C&D Superphosphoric Acid Plant. The proposed project also includes an increase in the production rate of the X-Train (Dical). The proposed project will trigger PSD review for fluorides. Supplemental information is presented in the attached report.

2. Projected or Actual Date of Commencement of Construction: **8/00**

3. Projected Date of Completion of Construction: **8/03**

Application Comment

A PSD application fee of $7500, as discussed with Mr. Syed Arif of FDEP, is enclosed for the proposed project.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: **17** East (km): **328.3** North (km): **3368.8**			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): Longitude (DD/MM/SS):			
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **28**	6. Facility SIC(s): **2874**
7. Facility Comment (limit to 500 characters):			

Facility Contact

1. Name and Title of Facility Contact: **Charles B. Pults, Senior Environmental Engineer**
2. Facility Contact Mailing Address: Organization/Firm: **White Springs Agricultural Chemicals, Inc.** Street Address: **P.O. Box 300** City: **White Springs** State: **FL** Zip Code: **32906**
3. Facility Contact Telephone Numbers: Telephone: **(904) 397-8442** Fax: **(904) 397-7087**

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source? [ ] Unknown
2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?
4. [ ] Major Source of Hazardous Air Pollutants (HAPs)?
5. [X] Synthetic Minor Source of HAPs?
6. [X] One or More Emissions Units Subject to NSPS?
7. [ ] One or More Emission Units Subject to NESHAP?
8. [ ] Title V Source by EPA Designation?
9. Facility Regulatory Classifications Comment (limit to 200 characters):

List of Applicable Regulations

Title V Core List	
F.S. 403	
Rule 62-4, 204, 210, 212, 213, 214, 252, 256, 257, 281, 296, 297, FAC	
40 CFR 52, 60, 82.	

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	tons/year	4. Basis for Emissions Cap	5. Pollutant Comment
PM	**A**				
PM10	**A**				
NOX	**A**				
SO2	**A**				
FL	**B**				
SAM	**A**				
CO	**A**				
VOC	**B**				

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
5. Fugitive Emissions Identification: [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [X] Attached, Document ID: **Report** [ ] Not Applicable
7. Supplemental Requirements Comment: **See attached report in support of PSD application.**

Additional Supplemental Requirements for Title V Air Operation Permit Applications NA

8. List of Proposed Insignificant Activities: [ ] Attached, Document ID:_____ [ ] Not Applicable
9. List of Equipment/Activities Regulated under Title VI: [ ] Attached, Document ID:_____ [ ] Equipment/Activities On site but Not Required to be Individually Listed [ ] Not Applicable
10. Alternative Methods of Operation: [ ] Attached, Document ID:_____ [ ] Not Applicable
11. Alternative Modes of Operation (Emissions Trading): [ ] Attached, Document ID:_____ [ ] Not Applicable
12. Identification of Additional Applicable Requirements: [ ] Attached, Document ID:_____ [ ] Not Applicable
13. Risk Management Plan Verification: [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID:_____) or previously submitted to DEP (Date and DEP Office:_____) [ ] Plan to be submitted to CEPPO (Date required:_____) [ ] Not Applicable
14. Compliance Report and Plan: [ ] Attached, Document ID:_____ [ ] Not Applicable
15. Compliance Certification (Hard-copy Required): [ ] Attached, Document ID:_____ [ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
X-Train (Dical) Process

4. Emissions Unit Identification Number:
ID: **004**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code: **A**	6. Initial Startup Date: **NA**	7. Emissions Unit Major Group SIC Code: **28**	8. Acid Rain Unit? [ ]

9. Emissions Unit Comment: (Limit to 500 Characters)
X-Train produces dicalcium and monocalcium phosphate in two methods of operation:
(1) 18.5%P
(2) 21.0%P

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): **Baghouse, Wet Scrubber –Venturi, and Cyclones**
2. Control Device or Method Code(s): **002, 018, 075**

Emissions Unit Details NA

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		°F seconds °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate: **55 tph**		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	**8760** hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): **Dical production rate.**		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Page 8.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: **3**

3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):
EP 1 = X-Train Stack
EP 2 = Dedust bin
EP 3 = Shipping area
EP 4 = Limestone bin
EP 5 = Reclaim/fines bin
EP 6 = Fugitive Dust Collection

4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:

5. Discharge Type Code: **V**	6. Stack Height: **120** feet	7. Exit Diameter: **7** feet
8. Exit Temperature: **120** °F	9. Actual Volumetric Flow Rate: **92,400** acfm	10. Water Vapor: **NA** %

11. Maximum Dry Standard Flow Rate: **NA** dscfm	12. Nonstack Emission Point Height: **NA** feet

13. Emission Point UTM Coordinates:
Zone: East (km): North (km):

14. Emission Point Comment (limit to 200 characters):

EP1 (Wet Scrubber) is the representative stack for this unit based on maximum emissions.

Information for Other Emission Points

	Discharge Type	Stck Ht. (ft)	Exit Dia. (ft)	Exit Temp (F)	Flowrate (acfm)
EP2	**V**	**20**	**3.5**	**120**	**25,000**
EP3	**V**	**100**	**3.0**	**115**	**18,000**
EP4	**V**	**105**	**1.0**	**115**	**6,000**
EP5	**V**	**10**	**1.0**	**110**	**6,000**
EP6	**H**	**-**	**-**	**115**	**40,000**

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment __1___ of __2___

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Dical Production**		
2. Source Classification Code (SCC): **3-01-999-99**	3. SCC Units: **Tons Product**	
3. Maximum Hourly Rate: **55 tph**	4. Maximum Annual Rate: **400,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **The plant is not expected to operate at 55 tph for all 8760 hours of operation.**		

Segment Description and Rate: Segment __2___ of __2___

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **In-Process Fuel (Natural Gas)**		
2. Source Classification Code (SCC): **3-90-005-89**	3. SCC Units: **Million Cubic Feet Burned**	
4. Maximum Hourly Rate: **0.064**	5. Maximum Annual Rate: **564**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1025**
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM/PM10	**018**	**000**	**EL**
FL	**002**	**000**	**EL**
CO	**000**	**000**	**NS**
VOC	**000**	**000**	**NS**
NOX	**000**	**000**	**NS**
SO2	**000**	**000**	**NS**

Emissions Unit Information Section __1____ of ___5___

Pollutant Detail Information Page __1____ of ___2___

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM/PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **22.0** lb/hour **79.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **See Appendix A** Reference:	7. Emissions Method Code:
7. Calculation of Emissions (limit to 600 characters): **See Appendix A**	
8. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Combined emissions from emission points.**	

Allowable Emissions Allowable Emissions ___1___ of ___1___

1. Basis for Allowable Emissions Code: **Other**	2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **22.0 lb/hr**	4. Equivalent Allowable Emissions: **22.0** lb/hour **79.6** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 5**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Combined emissions from emission points.**	

Emissions Unit Information Section __1____ of ___5___

Pollutant Detail Information Page __2____ of ___2___

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **FL**	2. Total Percent Efficiency of Control: **90**

3. Potential Emissions: **1.65** lb/hour **6.0** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **0.03 lb/ton product** Reference: **Engineering estimate**	7. Emissions Method Code:

9. Calculation of Emissions (limit to 600 characters):

FL, hr = 0.03 lb/ton x 55 tph
= 1.65 lb/hr
FL, yr = 0.03 lb/ton x 400,000 tpy x ton/2000 lbs
= 6.0 tpy

10. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Allowable Emissions Allowable Emissions ___1___ of ___1___

1. Basis for Allowable Emissions Code: **Other**	2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **1.65 lb/hr**	4. Equivalent Allowable Emissions: **1.65** lb/hour **6.0** tons/year

5. Method of Compliance (limit to 60 characters):
EPA Method 13B

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation __1____ of ___1___

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification **(natural gas)** [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: **Report** [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications NA

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
B Phosphoric Acid Plant

4. Emissions Unit Identification Number:
ID: **020**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code: **A**	6. Initial Startup Date: **NA**	7. Emissions Unit Major Group SIC Code: **28**	8. Acid Rain Unit? [ ]

10. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

5. Control Equipment/Method Description (Limit to 200 characters per device or method): **Packed wet scrubber**
2. Control Device or Method Code(s): **002**

Emissions Unit Details NA

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		°F seconds °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate: **100 tph P2O5 input**		
5. Requested Maximum Operating Schedule:		
	24 hours/day	**7** days/week
	52 weeks/year	**8760** hours/year
11. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Page 8.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **B Phos Acid**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Scrubber stack**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **106** feet	7. Exit Diameter: **4** feet
8. Exit Temperature: **100** °F	9. Actual Volumetric Flow Rate: **40,000** acfm	10. Water Vapor: **NA** %
11. Maximum Dry Standard Flow Rate: **NA** dscfm	12. Nonstack Emission Point Height: **NA** feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

2. Segment Description (Process/Fuel Type) (limit to 500 characters): **Phosphoric Acid/Wet Process**		
6. Source Classification Code (SCC): **3-01-016-01**	3. SCC Units: **Tons Processed**	
7. Maximum Hourly Rate: **100 tph**	8. Maximum Annual Rate: **600,000 tpy**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **P2O5 input**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
FL	**002**	**000**	**EL**

Emissions Unit Information Section __2__ **of** __5__

Pollutant Detail Information Page __1__ **of** __1__

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **FL**	2. Total Percent Efficiency of Control: **90**
3. Potential Emissions: **1.35** lb/hour **4.1** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **0.0135 lb/ton P2O5 input** Reference: **BACT**	7. Emissions Method Code:
12. Calculation of Emissions (limit to 600 characters): **FL, hr = 0.0135 lb/ton P2O5 input x 100 tph P2O5 input = 1.35 lb/hr** **FL, yr = 0.0135 lb/ton P2O5 input x 600000 tpy P2O5 input x ton/2000 lbs = 4.1 tpy**	
13. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions __1__ of __1__

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **1.35 lb/hr**	4. Equivalent Allowable Emissions: **1.35** lb/hour **4.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 13B**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **BACT**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype: **NA**	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters): **No VE standard**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor __1__ of __2__

1. Parameter Code: **PRS**	2. Pollutant(s): **F**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **To be submitted (TBS)** Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor __2___ of __2___

1. Parameter Code: **Mass FLOW**	2. Pollutant(s): **F**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **To be submitted (TBS)** Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: **Report** [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications NA

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
D Phosphoric Acid Plant

4. Emissions Unit Identification Number:
ID: **069**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code: **A**	6. Initial Startup Date: **NA**	7. Emissions Unit Major Group SIC Code: **28**	8. Acid Rain Unit? [ ]

11. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

9. Control Equipment/Method Description (Limit to 200 characters per device or method): **Packed wet scrubber**
2. Control Device or Method Code(s): **002**

Emissions Unit Details NA

1. Package Unit:		
Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate: **110 tph P2O5 input**		
5. Requested Maximum Operating Schedule:		
	24 hours/day	**7** days/week
	52 weeks/year	**8760** hours/year
14. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Page 8.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **D Phos Acid**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Scrubber stack**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **105** feet	7. Exit Diameter: **3** feet
8. Exit Temperature: **100** °F	9. Actual Volumetric Flow Rate: **35,000** acfm	10. Water Vapor: **NA** %
11. Maximum Dry Standard Flow Rate: **NA** dscfm	12. Nonstack Emission Point Height: **NA** feet	
13. Emission Point UTM Coordinates: Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

3. Segment Description (Process/Fuel Type) (limit to 500 characters): **Phosphoric Acid/Wet Process**		
10. Source Classification Code (SCC): **3-01-016-01**	3. SCC Units: **Tons Processed**	
11. Maximum Hourly Rate: **110 tph**	12. Maximum Annual Rate: **800,000 tpy**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **P2O5 input**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
FL	**002**	**000**	**EL**

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **FL**	2. Total Percent Efficiency of Control: **90**

3. Potential Emissions: **1.49** lb/hour **5.4** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **0.0135 lb/ton P2O5 input** Reference: **BACT**	7. Emissions Method Code:

15. Calculation of Emissions (limit to 600 characters):

FL, hr = 0.0135 lb/ton P2O5 input x 110 tph P2O5 input
= 1.49 lb/hr
FL, yr = 0.0135 lb/ton P2O5 input x 800000 tpy P2O5 input x ton/2000 lbs
= 5.4 tpy

16. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Allowable Emissions Allowable Emissions ___1___ of ___1___

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **1.49 lb/hr**	4. Equivalent Allowable Emissions: **1.49** lb/hour **5.4** tons/year

5. Method of Compliance (limit to 60 characters):
EPA Method 13B

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):
BACT

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype: **NA**	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters): **No VE standard**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor ___1__ of __2___

1. Parameter Code: **PRS**	2. Pollutant(s): **F**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **TBS** Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor ___2__ of __2___

1. Parameter Code: **Mass FLOW**	2. Pollutant(s): **F**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **TBS** Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: **Report** [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications NA

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
C & D Superphosphoric Acid (SPA) Plants

4. Emissions Unit Identification Number:
ID: **070**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code: **A**	6. Initial Startup Date: **NA**	7. Emissions Unit Major Group SIC Code: **28**	8. Acid Rain Unit? [ ]

12. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

13. Control Equipment/Method Description (Limit to 200 characters per device or method):
Wet scrubber

2. Control Device or Method Code(s): **002**

Emissions Unit Details NA

1. Package Unit:		
Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate: **110 tph P2O5 input**		
5. Requested Maximum Operating Schedule:		
24 hours/day		**7** days/week
52 weeks/year		**8760** hours/year
17. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Page 8.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **C&D SPA**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **60** feet	7. Exit Diameter: **3.6** feet
8. Exit Temperature: **95** °F	9. Actual Volumetric Flow Rate: **15,000** acfm	10. Water Vapor: **NA** %
11. Maximum Dry Standard Flow Rate: **NA** dscfm	12. Nonstack Emission Point Height: **NA** feet	
13. Emission Point UTM Coordinates: Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

4. Segment Description (Process/Fuel Type) (limit to 500 characters): **Phosphoric Acid/Wet Process**		
14. Source Classification Code (SCC): **3-01-016-99**	3. SCC Units: **Tons Processed**	
15. Maximum Hourly Rate: **110 tph**	16. Maximum Annual Rate: **876,000 tpy**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **P2O5 input**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
FL	**002**	**000**	**EL**

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **FL**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.96** lb/hour **3.8** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **0.0087 lb/ton P2O5 input** Reference: **BACT**	7. Emissions Method Code:
18. Calculation of Emissions (limit to 600 characters): **FL, hr = 0.0087 lb/ton P2O5 input x 110 tph P2O5 input = 0.96 lb/hr** **FL, yr = 0.0087 lb/ton P2O5 input x 876,000 tpy P2O5 input x ton/2000 lbs = 3.8 tpy**	
19. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions ___1___ of ___1___

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **0.96 lb/hr**	4. Equivalent Allowable Emissions: **0.96** lb/hour **3.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 13B**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **BACT**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype: **NA**	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters): **No VE standard**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor ___1__ of __2___

1. Parameter Code: **PRS**	2. Pollutant(s): **F**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **TBS** Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor __2__ of __2__

1. Parameter Code: **Mass FLOW**	2. Pollutant(s): **F**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **TBS** Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: **Report** [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications NA

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Acid Clarification Plant

4. Emissions Unit Identification Number:
ID: **070**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code: **A**	6. Initial Startup Date: **NA**	7. Emissions Unit Major Group SIC Code: **28**	8. Acid Rain Unit? [ ]

13. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

17. Control Equipment/Method Description (Limit to 200 characters per device or method):
Wet scrubber

2. Control Device or Method Code(s): **002**

Emissions Unit Details NA

1. Package Unit:		
Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate: **110 tph P2O5 input**		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	**8760** hours/year
20. Operating Capacity/Schedule Comment (limit to 200 characters):		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Page 8.	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **Acid Clarification**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **60** feet	7. Exit Diameter: **3.6** feet
8. Exit Temperature: **95** °F	9. Actual Volumetric Flow Rate: **35,000** acfm	10. Water Vapor: **NA** %
11. Maximum Dry Standard Flow Rate: **NA** dscfm	12. Nonstack Emission Point Height: **NA** feet	
13. Emission Point UTM Coordinates: Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment __1___ of __1___

5. Segment Description (Process/Fuel Type) (limit to 500 characters): **Phosphoric Acid/Wet Process for ACP**		
18. Source Classification Code (SCC): **3-01-016-99**	3. SCC Units: **Tons Processed**	
19. Maximum Hourly Rate: **110 tph**	20. Maximum Annual Rate: **876,000 tpy**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): **P2O5 input**		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
FL	**002**	**000**	**EL**

Emissions Unit Information Section __5____ **of** ___5___

Pollutant Detail Information Page __1____ **of** ___1___

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **FL**	2. Total Percent Efficiency of Control: **90**
3. Potential Emissions: **3.3** lb/hour **13.1** tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **0.03 lb/ton P2O5 input** Reference: **BACT**	7. Emissions Method Code:
21. Calculation of Emissions (limit to 600 characters): **FL, hr = 0.03 lb/ton P2O5 input x 110 tph P2O5 input = 3.3 lb/hr** **FL, yr = 0.03 lb/ton P2O5 input x 876,000 tpy P2O5 input x ton/2000 lbs = 13.1 tpy**	
22. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):	

Allowable Emissions Allowable Emissions ___1___ of ___1___

1. Basis for Allowable Emissions Code: **Rule**	2. Future Effective Date of Allowable Emissions: **NA**
3. Requested Allowable Emissions and Units: **3.3 lb/hr**	4. Equivalent Allowable Emissions: **3.3** lb/hour **13.1** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 13B**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **BACT**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype: **NA**	2. Basis for Allowable Opacity: [ ] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters): **No VE standard**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____ **NA**

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: **Report** [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: **Report** [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications NA

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

A REPORT IN SUPPORT OF
PSD PERMIT APPLICATION

PREPARED FOR:

WHITE SPRINGS AGRICULTURAL CHEMICALS, INC.
WHITE SPRINGS, FLORIDA

JULY 2000

PREPARED BY:

KOOGLER & ASSOCIATES
4014 N.W. 13TH STREET
GAINESVILLE, FLORIDA 32609
(352) 377-5822

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1.0 INTRODUCTION

White Springs Agricultural Chemicals, Inc. (WSAC) proposes to reallocate the phosphoric acid production amongst the existing A, B, C and D Plants. Specifically, Plants A and C will be permanently shut down; Plant B will be converted from Prayon to hemi-hydrate process with an increase in capacity from 83 to 100 tons per hour (tph) P2O5 input; and, Plant D will increase its hemi-hydrate capacity from 95 to 110 tph P2O5 input. This represents an overall decrease in the phosphoric acid production capacity at WSAC from 242 to 210 tph.

The reallocation will result in reduced processing capacity of downstream emission units also. However, in order to accommodate higher short-term processing rates, WSAC is requesting an increase in the processing rate of "C&D" Acid Clarification from 100 to 110 tph P2O5 input and "C&D" Superphosphoric Acid Plant from 95 to 110 tph P2O5 input. The proposed project also includes an increase in the production rate of the X-Train (Dical), from 45 to 55 tph product.

The proposed project will result in a significant increase, as defined in Rule 62-212, Florida Administrative Code (FAC), in the emissions of fluorides.

The proposed project will be subject to a Prevention of Significant Deterioration (PSD) review, including a determination of Best Available Control Technology (BACT) and an air impact analysis pursuant to Rule 62-212, FAC.

2.0 FACILITY DESCRIPTION

The WSAC facility is located near White Springs, Hamilton County, Florida. The site location and area location maps are presented in Figures 2-1 and 2-2, respectively.

The existing operation processes wet phosphate rock into several different products. This is accomplished by reacting the phosphate rock with sulfuric acid to produce phosphoric acid and then converting the phosphoric acid to various products. The chemical complex includes sulfuric acid plants, phosphoric acid plants, super phosphoric acid plants, monoammonium phosphate (MAP) and diammonium phosphate (DAP) plants, animal feed ingredient plants, and storage, handling, grinding and shipping facilities for phosphate rock, ammonia, limestone, sulfur, animal feed ingredient and other agricultural products. Plot plans presented in Figures 2-3 and 2-4, show the location of the existing plants at the Suwannee River Chemical Complex (SRC) and Swift Creek Chemical Complex (SCC), respectively.

FIGURE 2-1

Location Map

White Springs, Florida

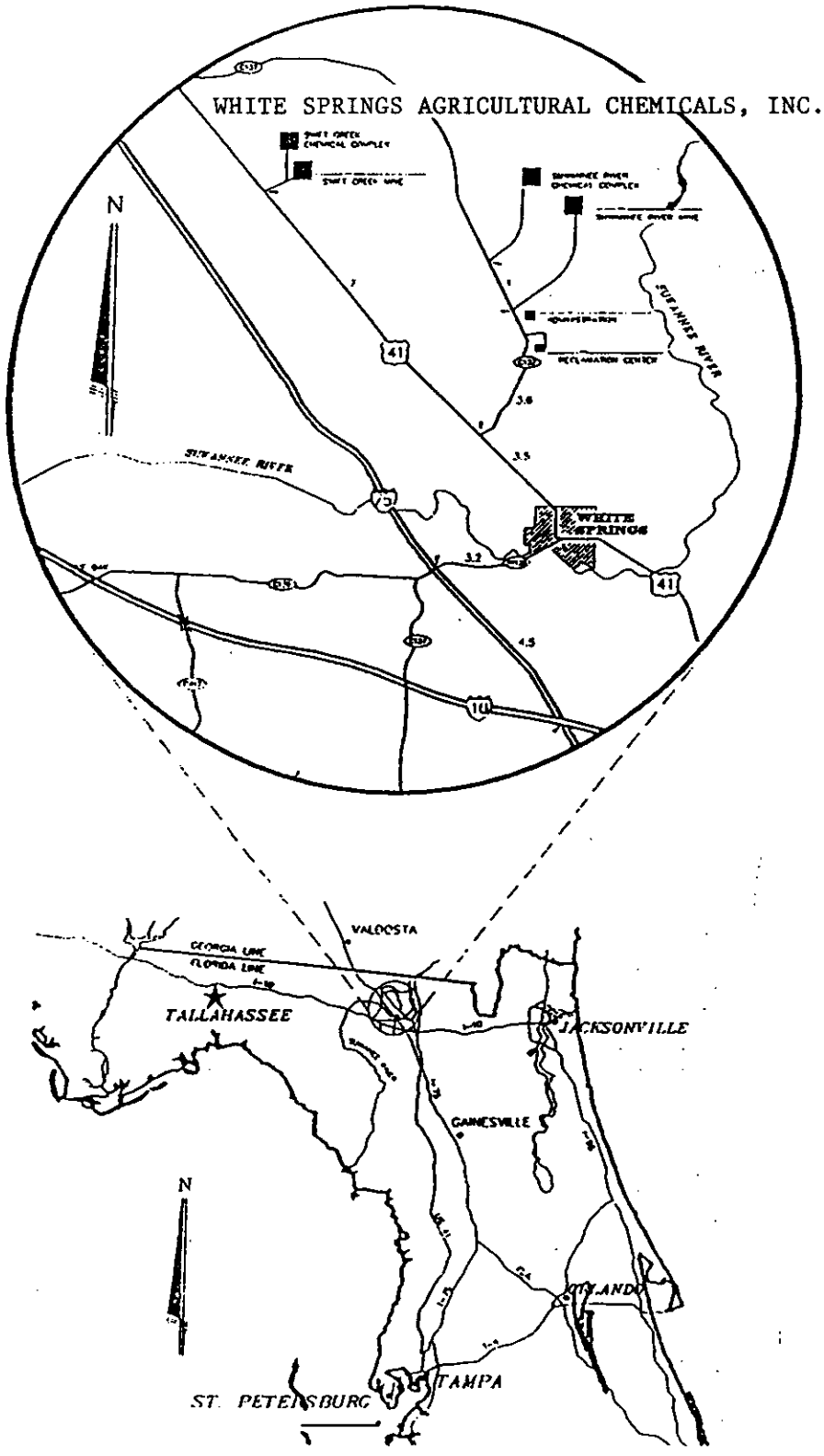


FIGURE 2-2

AREA LOCATION MAP

WHITE SPRINGS AGRICULTURAL CHEMICALS, INC.

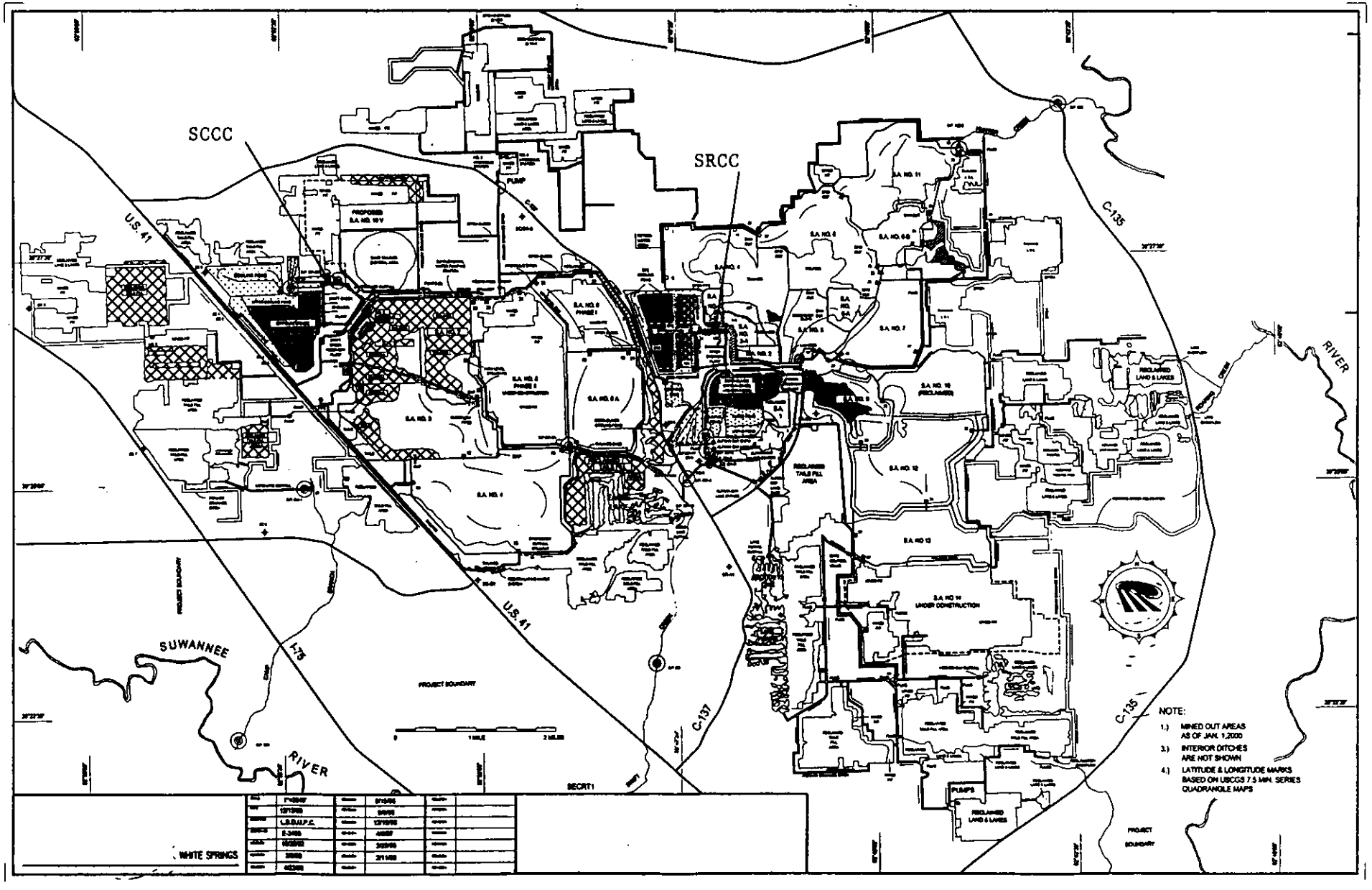


FIGURE 2-3

PLOT PLAN OF SRCC

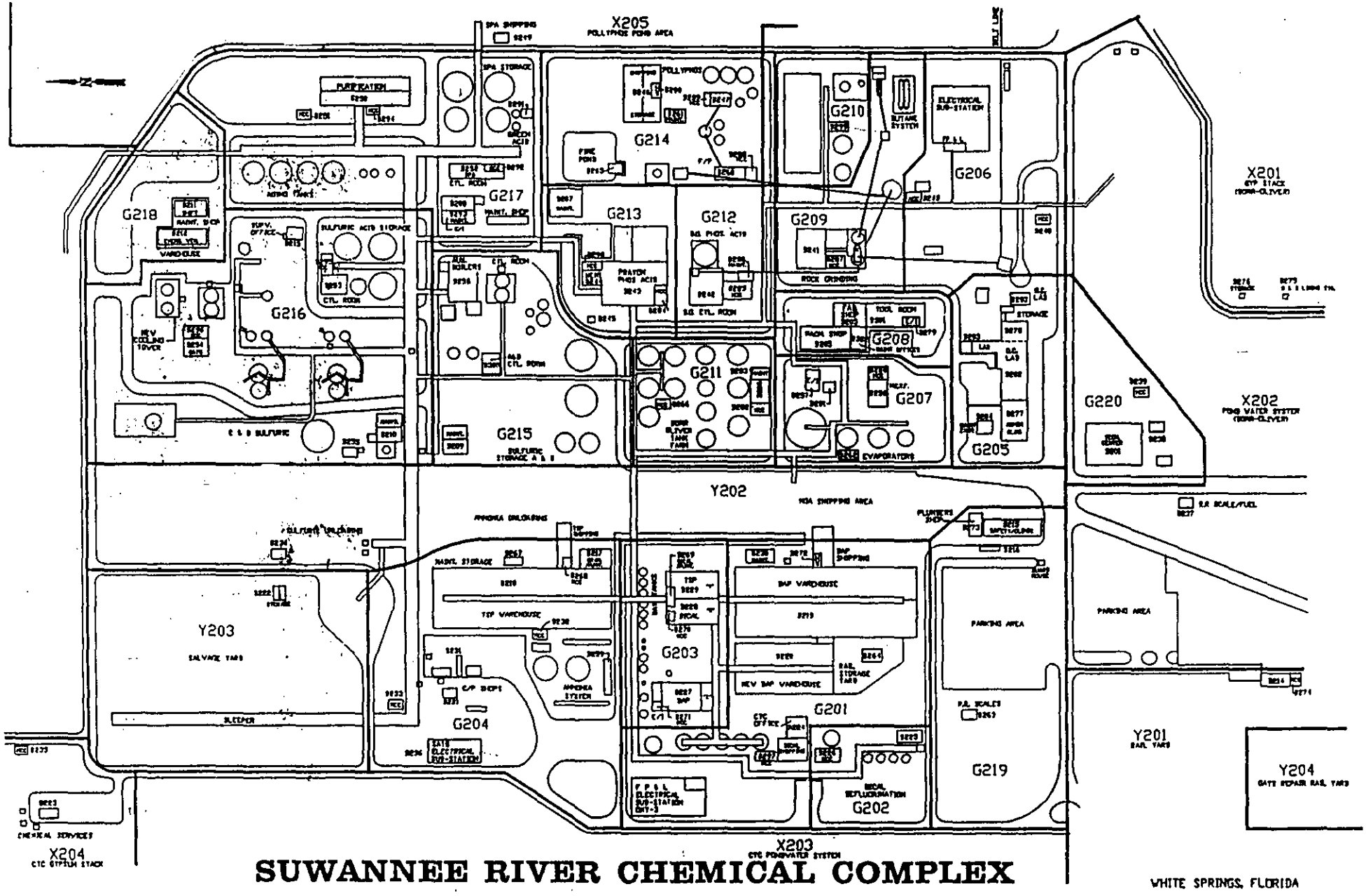
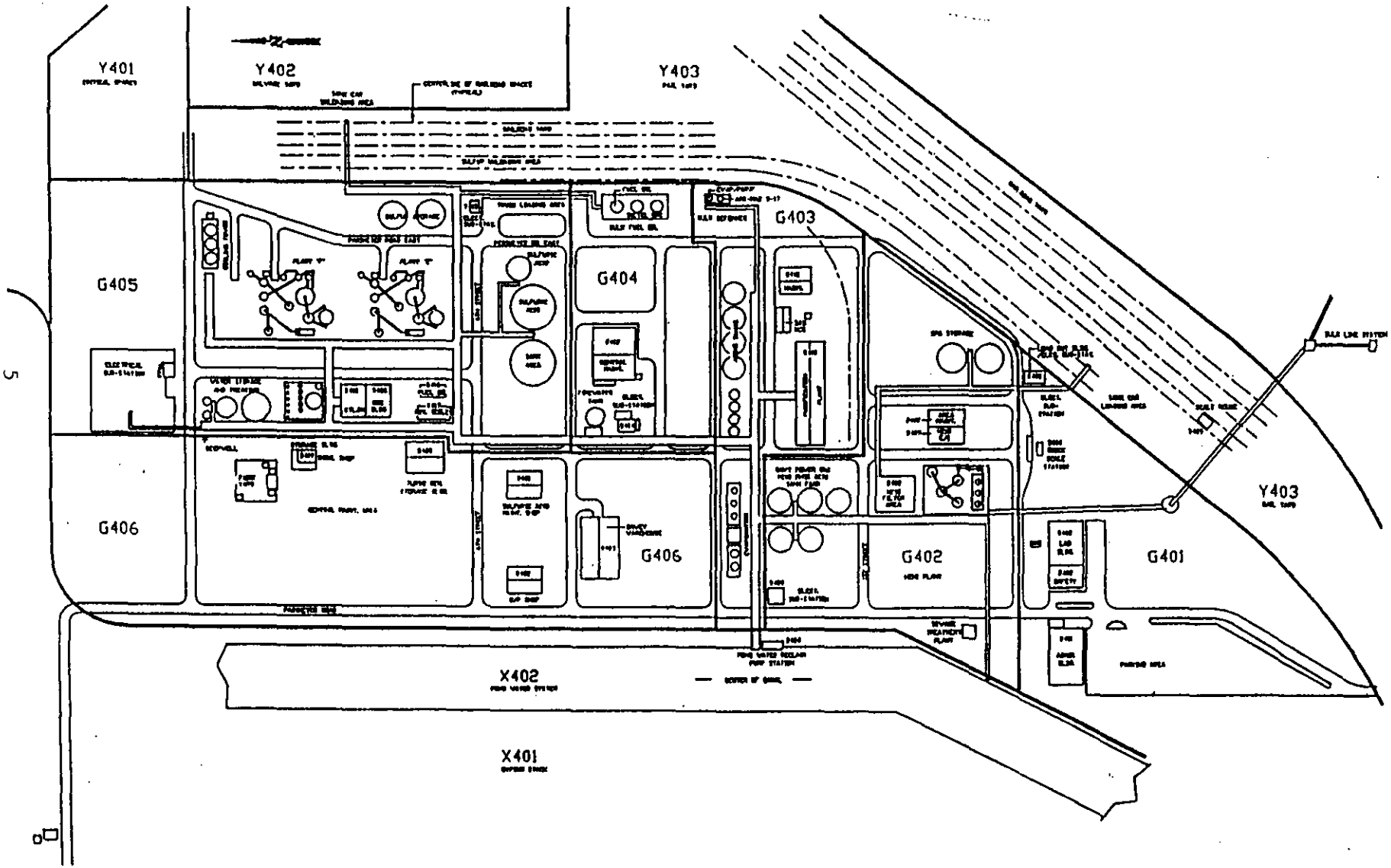


FIGURE 2-4

PLOT PLAN OF SCCC



SWIFT CREEK CHEMICAL COMPLEX

3.0 PROPOSED PROJECT

3.1 PROJECT DESCRIPTION

WSAC proposes to reallocate their phosphoric acid production capability and increase the production rate of the X-Train (Dical). Other emissions units affected by this change include the C & D Superphosphoric Acid Plant and Acid Clarification.

3.1.1 X-Train

At WSAC, Dical will be produced by mixing limestone with defluorinated phosphoric acid in a high speed mixer, reacting it in a pugmill, drying it in a natural gas fired unit, conveying it through a series of screens and mills to product storage and loadout.

The scope of the proposed project includes improvements in dust control equipment and other equipment changes necessary to accomplish an increase in the production rate of the existing dical plant from 45 to 55 tph product, as follows:

- Replace two existing pugmills with one larger unit.

- Add a high-speed mixer to the pugmill.

- Increase dryer scrubber fan capacity from 40,000 to 55,000 cfm.

- Replace a 45 MMBtu/hr natural gas burner with a 66 MMBtu/hr unit.

The dust control improvements that will be implemented include:

- Replace the existing limestone bin baghouse with a new 6000 cfm unit.

- Replace the existing fines return baghouse with a new 6000 cfm unit.

- Add a new 40,000 cfm baghouse to pick up dust from screens, elevators and drag conveyor.

- Divert exhaust from some of the dust sources in the material handling area currently served by cyclones and the main scrubber to the new baghouse.

- Remove the existing fluid bed deduster.

- Add 2 new screens in the product shipping area.

- Add a fines holding bin in the shipping area.

- Replace 4 existing screens with 4 new larger product screens to reduce the fines content.

- Replace 2 existing chain mills with 2 new larger capacity cage mills.

- Modify ductwork, piping, and other minor equipment, as necessary.

The air emissions, primarily particulate matter, will be controlled by baghouses, and a combination of cyclones and wet venturi scrubbers, as shown on the process flow diagram presented in Figure 3-1. The X-Train is not a significant source of fluorides as defluorinated acid is used in the process. Products of natural gas combustion are emitted from the dryer. The air emission calculations are presented in Appendix A and the projected emissions are summarized in Table 3-1.

3.1.2 B Phosphoric Acid Plant

At WSAC, phosphoric acid is made by reacting wet phosphate rock with sulfuric acid in reaction tanks, filtering the acid, concentrating the acid, and pumping the acid to various processes and/or storage, as necessary.

The proposed project includes the conversion of the existing Prayon process to the hemi-hydrate process. The proposed hemi-hydrate process will operate in a higher concentration and temperature zone than the present dihydrate process. The acid from the hemi-hydrate process, when evaporated to the same strength, will have less impurities than acid from the dihydrate process. The A and C Phosphoric Acid plants will be shut down after the modified B Phosphoric Acid Plant is operational. The existing A and C Plant filters and scrubbers may continue to be utilized, as shown in Figure 3-2.

The scope of the project includes the addition of tanks, pumps, piping, controls and ducting, as necessary.

The fluoride emissions from the process will be controlled by a number of wet scrubbers, as shown on the process flow diagram presented in Figure 3-2. The air emission calculations are presented in Appendix A and the projected emissions are summarized in Table 3-1.

3.1.3 D Phosphoric Acid Plant

This existing hemi-hydrate plant will continue to operate in its current configuration. The process is similar to that described above for the B Phosphoric Acid Plant. The proposed project includes a request for higher operating rates, as and when necessary. Consequently, the only associated equipment changes will be in the type and size of pumps and piping, as

necessary.

The fluoride emissions from the process will be controlled by wet scrubbers, as shown on the process flow diagram presented in Figure 3-3. The air emission calculations are presented in Appendix A and the projected emissions are summarized in Table 3-1.

3.1.4 Acid Clarification

This existing acid clarification process will continue to operate in its current configuration. The process uses additives for removing certain impurities from the phosphoric acid. The proposed project includes a request for higher operating rates, as and when necessary. Consequently, the only associated equipment changes will be in the type and size of pumps and piping, as necessary.

The fluoride emissions from the process will be controlled by a packed wet scrubber, as shown on the process flow diagram presented in Figure 3-4. The air emission calculations are presented in Appendix A and the projected emissions are summarized in Table 3-1.

3.1.5 C & D Superphosphoric Acid Plant

This existing C & D SPA Plant will continue to operate in its current configuration where phosphoric acid is concentrated to about 70 percent P2O5 using high vacuum and high pressure steam. The proposed project includes a request for higher operating rates, as and when necessary. Consequently, the only associated equipment changes will be in the type and size of pumps and piping, as necessary.

The fluoride emissions from the process will be controlled by a packed wet scrubber, as shown on the process flow diagram presented in Figure 3-4. The air emission calculations are presented in Appendix A and the projected emissions are summarized in Table 3-1.

3.1.6 Summary

The net emission changes as a result of the proposed project, summarized in Table 3-2, indicate that there will be a significant net increase in the annual emissions of FL, as defined in Rule 62-212, FAC. Consequently, the proposed project is subject to a PSD review for fluorides.

3.2 RULE REVIEW

The following are the state and federal air regulatory requirements that apply to new or modified sources subject to a PSD review.

In accordance with EPA and state of Florida PSD review requirements, all major new or modified sources of air pollutants regulated under the Clean Air Act (CAA) are subject to preconstruction review. Florida's State Implementation Plan (SIP), approved by the EPA, authorizes the Florida Department of Environmental Protection (FDEP) to manage the air pollution program in Florida.

The PSD review determines whether or not significant air quality deterioration will result from a new or modified facility. Federal PSD regulations are contained in 40CFR52.21, Prevention of Significant Deterioration of Air Quality. The state of Florida has adopted PSD regulations that are essentially identical to the federal regulations and are contained in Chapter 62-212 of the Florida Administration Code (FAC). All new major sources and major modifications to existing sources are subject to control technology review, source impact analysis, air quality analysis and additional impact analyses for each pollutant subject to a PSD review. A facility must also comply with the Good Engineering Practice (GEP) stack height rule.

A major facility is defined in the PSD rules as any one of the 28 specific source categories (see Table 3-3) which has the potential to emit 100 tons per year (tpy) or more, or any other stationary facility which has the potential to emit 250 tpy or more, of any pollutant regulated under the CAA. A major modification is defined in the PSD rules as a change at an existing major facility which increases the actual emissions by greater than significant amounts (see Table 3-4).

3.2.1 Ambient Air Quality Standards

The EPA and the state of Florida have developed/adopted ambient air quality standards, AAQS (see Table 3-5). Primary AAQS protect the public health while the secondary AAQS protect the public welfare from adverse effects of air pollution. Areas of the country have been designated as attainment or nonattainment for specific pollutants. Areas not meeting the AAQS for a given pollutant are designated as nonattainment areas for that pollutant. Any new source or expansion of existing sources in or near these nonattainment areas is usually subject to more stringent air permitting requirements. Projects proposed in attainment areas are subject to air permit requirements that ensure continued attainment status.

3.2.2 PSD Increments

In promulgating the 1977 CAA Amendments, Congress quantified concentration increases above an air quality baseline concentration levels for sulfur dioxide (SO_2) and particulate matter (PM/TSP) which would constitute significant deterioration. The size of the allowable increment depends on the classification of the area in which the source would be located or have an impact. Class I areas include specific national parks, wilderness areas and memorial parks. Class II areas are all areas not designated as Class I areas and Class III areas are

are no designated Class III areas in Florida.

In 1988, EPA promulgated PSD regulations for nitrogen oxides (NOx) and PSD increments for nitrogen dioxide (NO_2) concentrations. FDEP adopted the NO_2 increments in July 1990 (see Table 3-6 for PSD increments).

In the PSD regulations, as amended August 7, 1980, baseline concentration is defined as the ambient concentration level for a given pollutant which exists in the baseline area at the time of the applicable baseline date and includes the actual emissions representative of facilities in existence on the applicable baseline date, and the allowable emissions of major stationary facilities which commenced construction before January 6, 1975, but were not in operation by the applicable baseline date.

The emissions not included in the baseline concentration and, therefore, affecting PSD increment consumption are the actual emissions from any major stationary facility on which construction commenced after January 6, 1975, for SO_2 and PM (TSP) and February 8, 1988, for NO_2, and the actual emission increases and decreases at any stationary facility occurring after the baseline date.

3.2.3 Control Technology Evaluation

The PSD control technology review requires that all applicable federal and state emission limiting standards be met and that Best Available Control Technology (BACT) be applied to the source. The BACT requirements are applicable to all regulated pollutants subject to a PSD review.

BACT is defined in Chapter 62-212, FAC as an emission limitation, including a visible emission standard, based on the maximum degree of reduction of each pollutant emitted which the Department, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant.

If the Department determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead, to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice or operation. Each BACT determination shall include applicable test methods or shall provide for determining compliance with the standard(s) by means that achieve equivalent results.

The reason for evaluating the BACT is to minimize as much as possible the consumption of PSD increments and to allow future growth without significantly degrading air quality. The BACT review also analyzes if the most current control systems are incorporated in the design of a proposed facility. The BACT, as a minimum, has to comply with the applicable New Source Performance Standard for the source. The BACT analysis requires the evaluation of the available air pollution control methods including a cost-benefit analysis of the alternatives. The cost-benefit analysis includes consideration of materials, energy, and economic penalties associated with the control systems, as well as environmental benefits derived from the alternatives.

EPA determined that the bottom-up approach (starting at NSPS and working up to BACT) was not providing the level of BACT originally intended. As a result, in December 1987, EPA strongly suggested changes in the implementation of the PSD program including the "top-down" approach to BACT. The top-down approach requires an applicant to start with the most stringent control alternative, often Lowest Achievable Emission Rate (LAER), and justify its rejection or acceptance as BACT. Rejection of control alternatives may be based on technical or economical infeasibility, physical differences, locational differences, and environmental or energy impact differences when comparing a proposed project with a project previously subject to that BACT.

3.2.4 Air Quality Monitoring

An application for a PSD permit requires an analysis of ambient air quality in the area affected by the proposed facility or major modification. For a new major facility, the affected pollutants are those that the facility would potentially emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate.

Ambient air monitoring for a period of up to one year, but no less than four months, is required. Existing ambient air data for a location in the vicinity of the proposed project is acceptable if the data meet FDEP quality assurance requirements. If not, additional data would need to be gathered. There are guidelines available for designing a PSD air monitoring network in EPA's "Ambient Monitoring Guidelines for Prevention of Significant Deterioration."

FDEP may exempt a proposed major stationary facility or major modification from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause air quality impacts less than the de minimis levels (see Table 3-4).

3.2.5 Ambient Impact Analysis

A source impact analysis is required for a proposed major source subject to PSD for each

pollutant for which the increase in emissions exceeds the significant emission rate. Specific atmospheric dispersion models are required in performing the impact analysis. The analysis should demonstrate the project's compliance with AAQS and allowable PSD increments. The impact analysis for criteria pollutants may be limited to only the new or modified source if the net increase in impacts due to the new or modified source is below significant impact levels.

Typically, a five-year period is used for the evaluation of the highest, second-highest short-term concentrations for comparison to AAQS or PSD increments. The term "highest, second-highest" refers to the highest of the second-highest concentrations at all receptors. The second-highest concentration is considered because short-term AAQS specify that the standard should not be exceeded at any location more than once a year. If less than five years of meteorological data are used in the modeling analysis, the highest concentration at each receptor is normally used.

3.2.6 Additional Impact Analysis

The PSD rules also require analyses of the impairment to visibility and the impact on soils and vegetation resulting from a project. A visibility impairment analysis must be conducted for PSD Class I areas. Impacts due to commercial, residential, industrial, and other growth associated with the source must be addressed. The National Park Service also requires an Air Quality Related Values (AQRV) Analysis for a Class I area.

3.2.7 Good Engineering Practice Stack Height

In accordance with Chapter 62, FAC, the degree of emission limitation required for control of any pollutant should not be affected by a stack height that exceeds GEP, or any other dispersion technique. GEP stack height is defined as the greater of:

1. 65 meters (m), or
2. A height established by applying the formula:
   $Hg = H + 1.5\ L$
   where:
   Hg - GEP stack height,
   H - Height of the structure or nearby structure, and
   L - Lesser dimension, height or projected width of nearby structure(s)

3. A height demonstrated by a model or field study.

The GEP stack height regulations require that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height. The actual stack height may be higher or lower.

3.3 RULE APPLICABILITY

The proposed project at WSAC, as previously described herein, is classified as a major modification to a major source subject to both state and federal regulations as set forth in Rule 62-212, FAC.

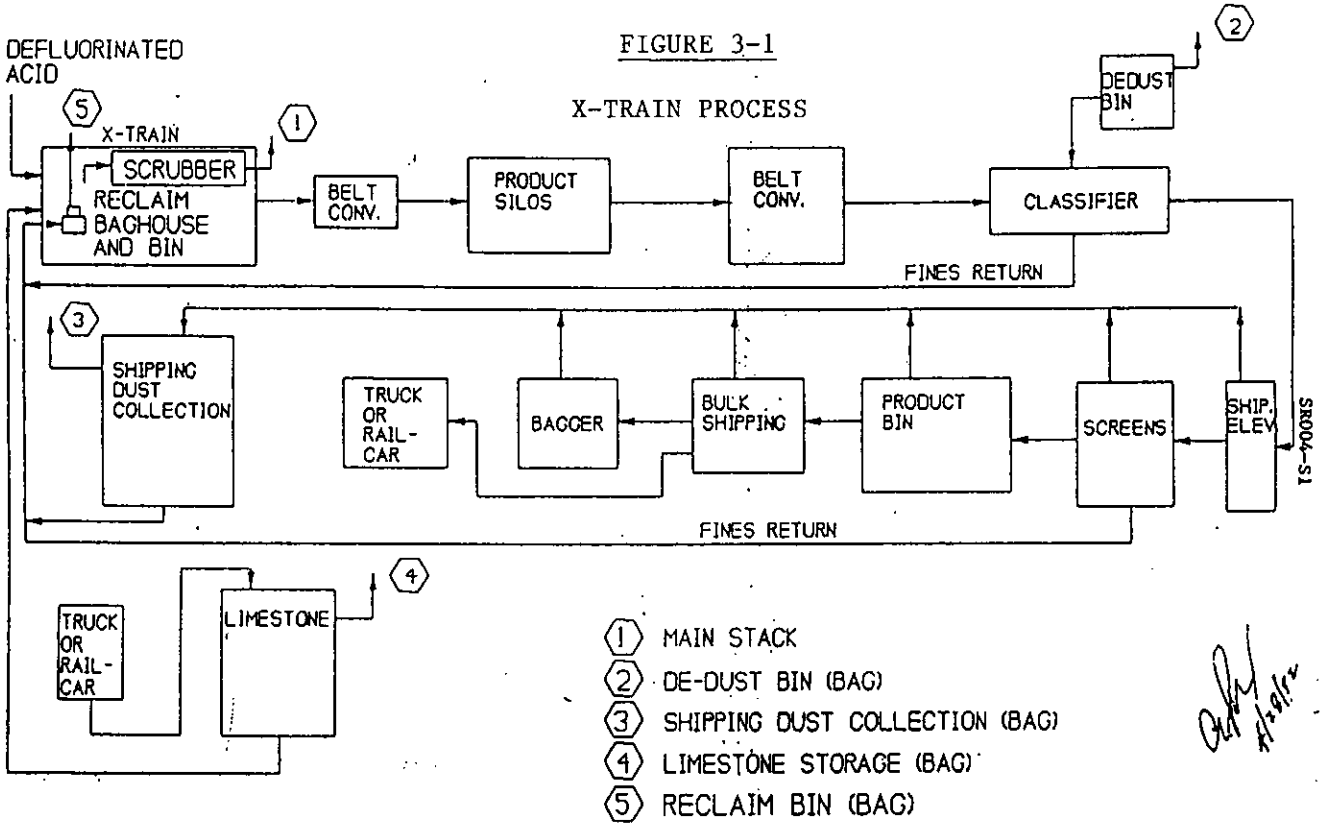
The facility is located in an area classified as attainment for each of the regulated air pollutants in accordance with Rule 62-275, FAC.

The proposed project will result in significant increases in the emissions of fluorides; as defined in Rule 62-212, FAC; and, will therefore be subject to PSD preconstruction review requirements (see Table 3-2).

The PSD review will include a determination of Best Available Control Technology, an air quality review, Good Engineering Practice stack height analysis and an evaluation of impacts on soils, vegetation and visibility.

FIGURE 3-1

X-TRAIN PROCESS



(EXPANDED VIEW AROUND 1)

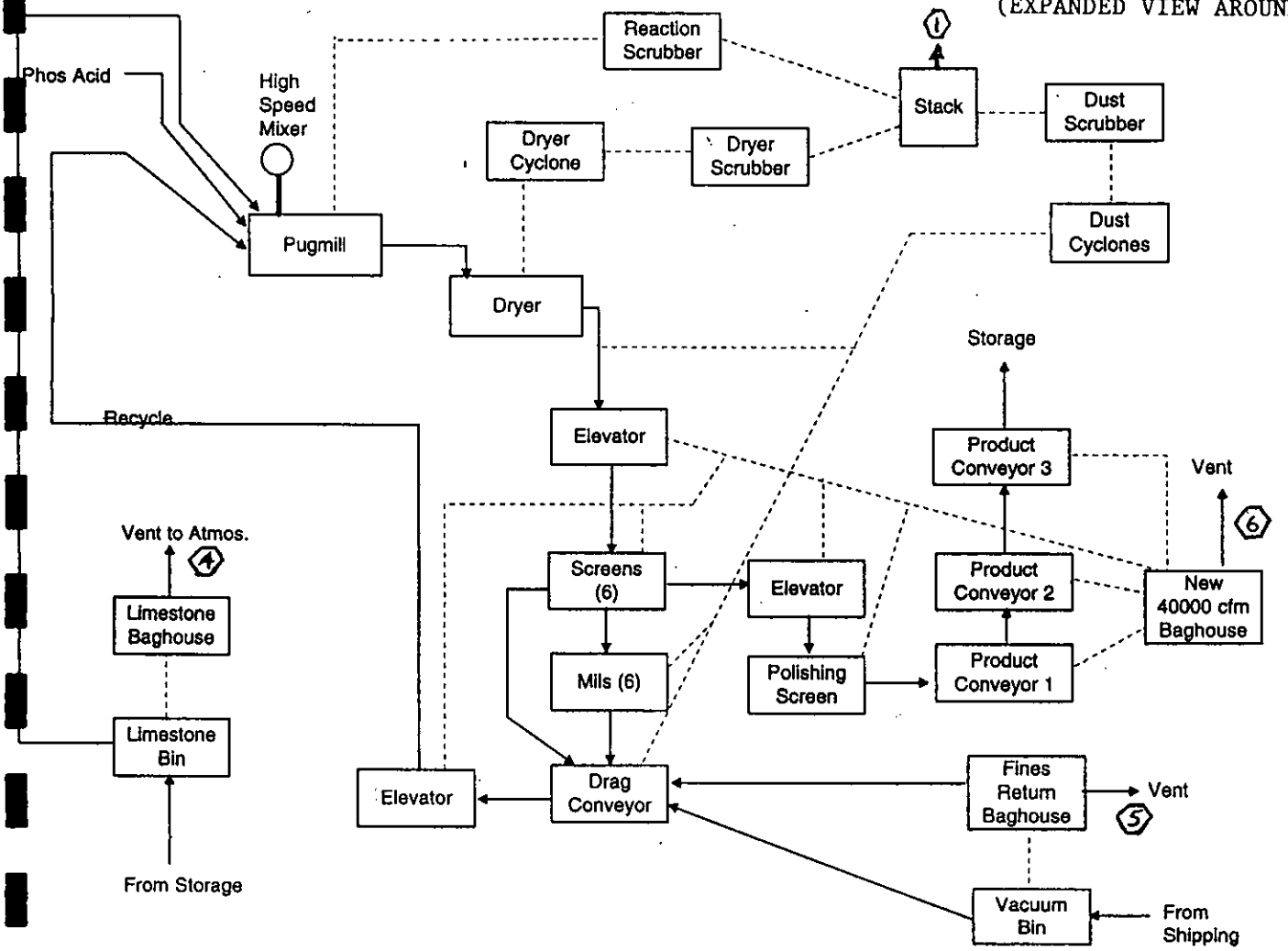


FIGURE 3-2

B PHOSPHORIC ACID PLANT PROCESS

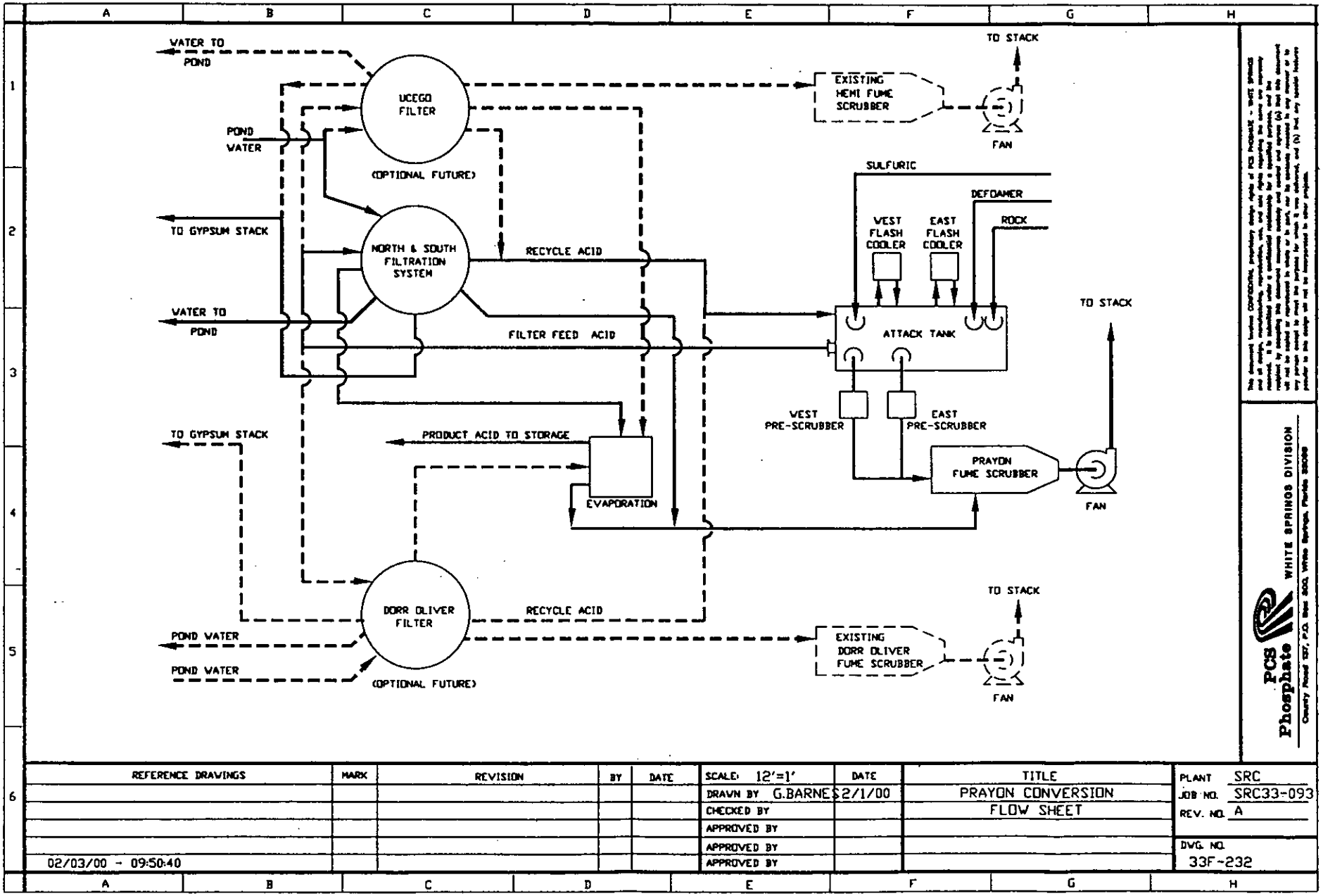


FIGURE 3-3

D PHOSPHORIC ACID PLANT PROCESS

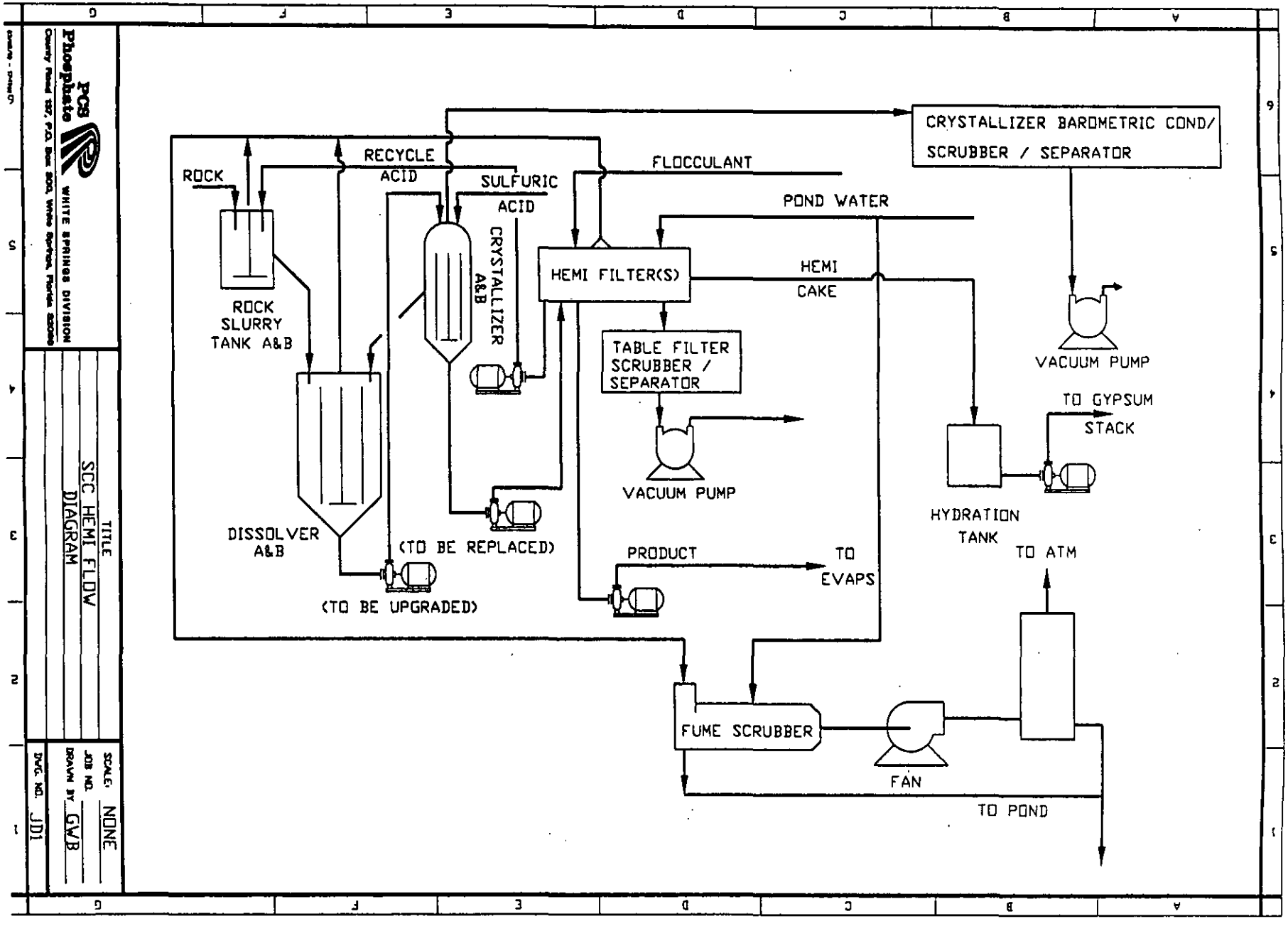


FIGURE 3-4

ACID CLARIFICATION PROCESS
AND
C&D SPA PLANT PROCESS

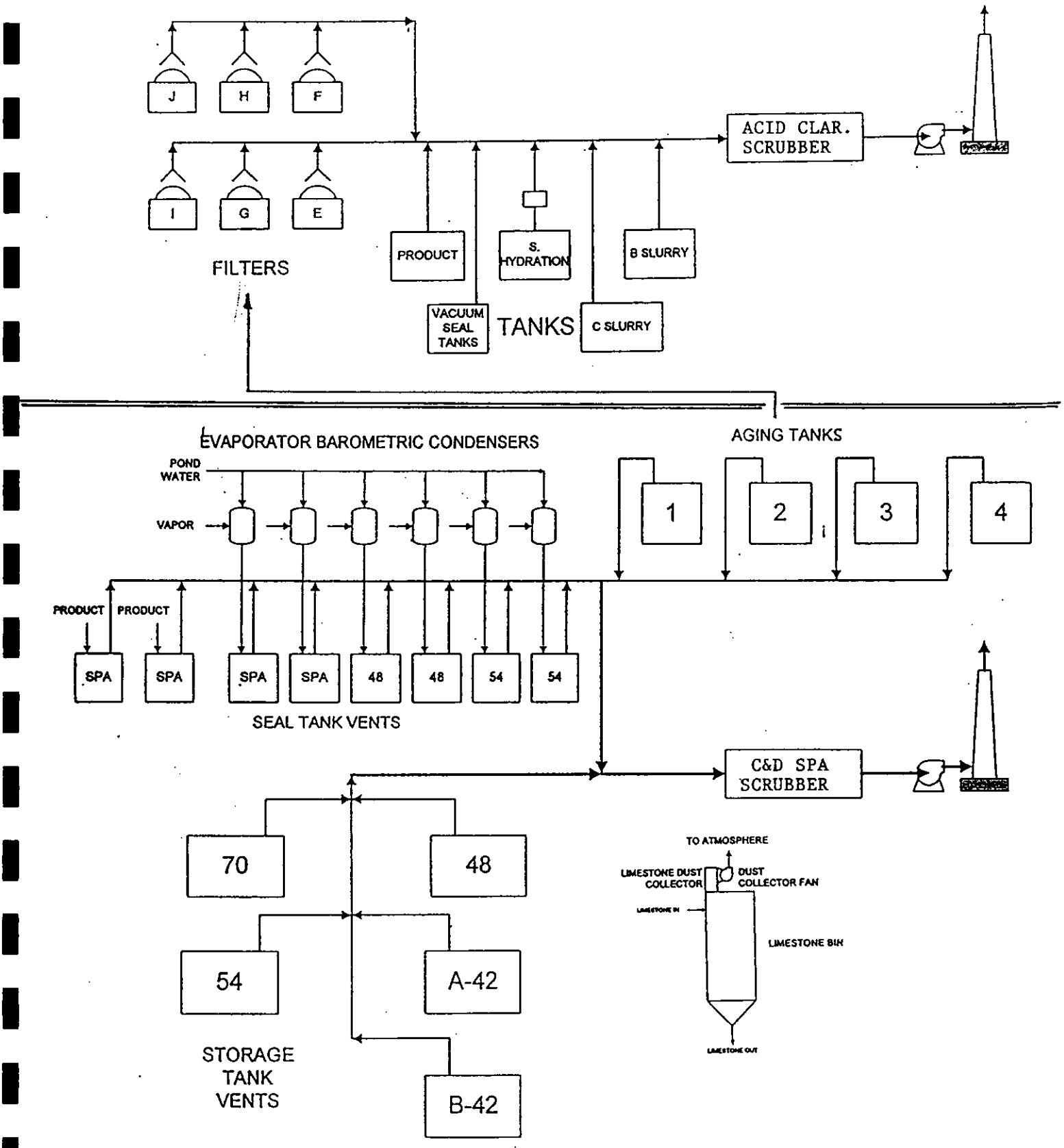


TABLE 3-1

SUMMARY OF EMISSION RATES

UNIT	1998 LB/HR	1998 HOURS	1998 TPY	1999 LB/HR	1999 HOURS	1999 TPY	AVERAGE TPY	PROPOSED LB/HR	PROPOSED TPY
FLUORIDES									
A PHOSPHORIC ACID	0.04	6774	0.14	0.03	3664	0.05	0.10	0	0
B PHOSPHORIC ACID	0.08	7385	0.30	0.13	8091	0.53	0.42	1.35	4.1
C PHOSPHORIC ACID	0.23	6982	0.80	0.23	2410	0.28	0.54	0	0
D PHOSPHORIC ACID	0.37	7752	1.43	0.20	7615	0.76	1.10	1.49	5.4
ACID CLARIFICATION	1.79	6878	6.15	0.61	6976	2.13	4.14	3.3	13.1
C&D SPA	0.52	6283	1.63	0.52	6703	1.74	1.69	0.96	3.8
X-TRAIN	0.18	3925	0.35	0.23	4202	0.48	0.43	1.65	6.0
PARTICULATE MATTER									
X-TRAIN	7.7	3925	15.0	6.8	4202	14.2	14.6	9.9	36.0
DEDUST	6.4	1361	4.36	6.4	1742	5.57	5.0	3.2	11.6
SHIPPING	4.6	1361	3.13	4.6	1742	4.0	3.6	2.3	8.4
LIMESTONE	1.0	1154	0.6	1.0	1883	0.94	1.1	0.77	2.8
RECLAIM	1.0	1361	0.68	1.0	1742	0.87	1.2	0.77	2.8
FUGITIVE DUST COLLECTIO	0	0	0	0	0	0	0.0	5.1	18.0
OTHER X-TRAIN EMISSIONS:		(mmcf gas)			(mmcf gas)				
SULFUR DIOXIDE	0.03	144	0.04	0.03	220	0.07	0.06	0.04	0.17
NITROGEN OXIDES	4.4	144	7.2	4.4	220	11.0	9.10	6.4	28.2
CARBON MONOXIDE	3.7	144	6.0	3.7	220	9.2	7.60	5.4	23.7
VOLATILE ORGANIC. CPDS.	0.12	144	0.2	0.12	220	0.31	0.26	0.18	0.79

NOTE: CALCULATIONS PRESENTED IN APPENDIX A.

TABLE 3-2

SUMMARY OF EMISSION CHANGES

POLLUTANT	EMISSIONS (TPY)					
	ACTUAL	PROPOSED	CONTEMPORANEOUS	CHANGE	PSD SIG.	PSD REVIEW?
FLUORIDES	8.4	32.4	0	24.0	3	YES
PARTICULATE MATTER	25.5	79.6	-42.7	11.4	15	NO
SULFUR DIOXIDE	0.06	0.15	0	0.09	40	NO
NITROGEN OXIDES	9.1	25.7	0	16.6	40	NO
CARBON MONOXIDE	7.6	21.5	0	13.9	100	NO
VOLATILE ORGANICS	0.26	0.72	0	0.46	40	NO

NOTE: CALCULATIONS PRESENTED IN APPENDIX A

TABLE 3-3
MAJOR FACILITY CATEGORIES

Fossil fuel fired steam electric plants of more than 250 MMBTU/hr heat input
Coal cleaning plants (with thermal dryers)
Kraft pulp mills
Portland cement plants
Primary zinc smelters
Iron and steel mill plants
Primary aluminum ore reduction plants
Primary copper smelters
Municipal incinerators capable of charging more than 250 tons of refuse per day
Hydrofluoric acid plants
Sulfuric acid plants
Nitric acid plants
Petroleum refineries
Lime plants
Phosphate rock processing plants
Coke oven batteries
Sulfur recovery plants
Carbon black plants (furnace process)
Primary lead smelters
Fuel conversion plants
Sintering plants
Secondary metal production plants
Chemical process plants
Fossil fuel boilers (or combinations thereof) totaling more than 250 million BTU/hr heat input
Petroleum storage and transfer units with total storage capacity exceeding 300,000 barrels
Taconite ore processing plants
Glass fiber processing plants
Charcoal production plants

TABLE 3-4
REGULATED AIR POLLUTANTS - SIGNIFICANT EMISSION RATES

Pollutant	Significant Emission Rate tons/yr	De Minimis Ambient Impacts ug/m^3
CO	100	575 (8-hour)
NOx	40	14 (NO_2, Annual)
SO_2	40	13 (24-hour)
Ozone	40 (VOC)	-
PM	25	10 (24-hour)
PM10	15	10 (24-hour)
TRS (including H2S)	10	0.2 (1-hour)
H_2SO_4 mist	7	-
Fluorides	3	0.25 (24-hour)
MSW Combustor:		
Organics (Dioxins/Furans)	3.5E-6	
Metals (PM)	15	
Acid Gases (SO2/HCl)	40	
MSW Landfill Gases (NMOC)	50	
	pounds/yr	
Lead	1200	0.1 (Quarterly avg)
Mercury	200	0.25 (24-hour)

TABLE 3-5
AMBIENT AIR QUALITY STANDARDS

Pollutant		FDEP (State) ug/m^3	FDEP (State) PPM	USEPA (National) Primary ug/m^3	USEPA (National) Primary PPM	USEPA (National) Secondary ug/m^3	USEPA (National) Secondary PPM
SO_2,	3-hour	1,300	0.5	-	-	1300	0.5
	24-hour	260	0.1	365	0.14	-	-
	Annual	60	0.02	80	0.03	-	-
PM10,	24-hour	150	-	150	-	150	-
	Annual	50	-	50	-	50	-
CO,	1-hour	40,000	35	40,000	35	-	-
	8-hour	10,000	9	10,000	9	-	-
Ozone,	1-hour	235	0.12	235	0.12	235	0.12
NO_2,	Annual	100	0.053	100	-	100	-
Lead,	Quarterly	1.5	-	1.5	-	1.5	-

TABLE 3-6
PSD INCREMENTS

Pollutant	Allowable PSD Increments (State/National) Class I ug/m^3	Class II ug/m^3	Class III ug/m^3
TSP, Annual	5	19	37
24-hour	10	37	75
SO_2, Annual	2	20	40
24-hour	5	91	182
3-hour	5	512	700
NO_2, Annual	2.5	25	50

4.0 BEST AVAILABLE CONTROL TECHNOLOGY

As indicated in the rule applicability in the permit application, the proposed project is subject to PSD review requirements pursuant to Rule 62-212, FAC. A Best Available Control Technology (BACT) evaluation is presented below for fluoride emissions from the proposed project.

4.1 EMISSION STANDARDS

Federal New Source Performance Standards (NSPS) for wet process phosphoric acid plants, codified in 40 CFR 60, Subpart T, limit fluoride emissions to no more than 0.02 pound per ton P2O5 input. For the purposes of the standard, the affected facility includes any combination of reactors, filters, evaporators and hot wells. It should be noted that phosphoric acid product storage tanks are not included under the standard as they are not an affected facility.

NSPS for Superphosphoric acid plants, codified in 40 CFR 60, Subpart U, limit fluoride emissions to no more than 0.01 pound per ton P2O5 input. For the purposes of the standard, the affected facility includes any combination of evaporators, hot wells, acid sumps, and cooling tanks.

There are no NSPS applicable to the X-Train (dicalcium phosphate plant) and acid clarification.

Rule 62-296, FAC contains source specific fluoride emission standards for new or modified phosphate processing facilities, as follows:

- Wet process phosphoric acid plant are limited to 0.02 lb/ton P2O5 input; and,
- All plants not specifically listed must use best available control technology.

More recently, additional federal standards were promulgated under 40 CFR 63 Subpart AA, National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants. The fluoride emission standard under these NESHAPs for existing phosphoric and superphosphoric acid plants are identical to that under NSPS, at 0.02 lb/ton P2O5 feed. The fluoride emission standard for new phosphoric and superphosphoric acid plants is limited to 0.0135 and 0.0087 lb/ton P2O5 feed, respectively. However, these standards apply only to major sources of HAPs. As WSAC is not a major source of HAPs, these standards do not apply to the proposed project.

There are no fluoride emission standards for tank farms.

4.2 CONTROL TECHNOLOGIES FOR FLUORIDES

The most common pollution control equipment used to control fluorides from a wet process phosphoric acid plant is a wet scrubber. There is some variation in the wet scrubbing system

configurations from plant to plant, often depending on the preference of the plant designers and suppliers.

The use of fresh water as scrubbing medium, in place of pond water, would result in increased capture of gaseous fluorides. Aside from the current water restrictions, this option is not practical as the increased fresh water use would upset the facility water balance and increase effluent emissions.

The existing X-Train scrubbing system consist of venturi scrubbers using recirculating acid slurry. These scrubbers are ideal for the particulate matter emissions control required in this process. The plant is not a significant fluoride source as it uses defluorinated phosphoric acid.

Packed scrubbers offer superior gaseous fluoride removal, however the industry experience indicates that the packing tends to plug frequently causing maintenance problems where significant particulate matter is encountered. The resulting plant down time cuts into the overall plant efficiency and productivity. Consequently, the use of packed scrubbers, in place of the existing venturi scrubbers, is not considered for this application. However, this BACT evaluation addresses the costs associated with the use of packed scrubbers, in series with the existing venturi scrubbers.

The existing B and D Phosphoric Acid Plants utilize packed cross-flow scrubbers with pond water for control of fluorides. These scrubbers are considered BACT for this process.

Although the C&D Superphosphoric Acid (SPA) Plants emit very little fluoride, since the fluorides are removed during the preceding evaporation steps, the existing pond water scrubber does utilize some packing (pads) that enhances gaseous fluoride removal.

The fluorides from the Acid Clarification area tanks is routed to the C&D SPA scrubber. However, the filters are exhausted to the Acid Clarification pond water scrubber. This scrubber also utilizes some packing (pads) that enhances gaseous fluoride removal.

For the above processes that already utilize packed scrubbers, this BACT evaluation addresses the use of an additional packed scrubber, in series.

The cost associated with the use of a cross-flow packed scrubber, based on a recent cost proposal for a similar application, is estimated below for each unit.

Total Capital Cost:	With Equipment Cost of $190,000	
	Purchased Equip. Cost (1.18, EPA factor)	= $ 224,200
	Installation Cost (0.85 PEC, EPA factor)	= $ 190,570
	Indirect Cost (0.35 PEC, EPA factor)	= $ 78,470
	Total Capital Cost	= $ 493,240
Direct Annual Cost	Labor (O.5 hr/shift, EPA factor)	= $ 10,000

	Maintenance (1.0 hr/shift, EPA factor)	= $ 20,000
	Electricity (fan, pumps)	= $110,000
	Total DC	= $ 60,000
Indirect Annual Cost	(0.1715 TCI, EPA combined factor) (includes capital recovery at 15 year life, 10% int.)	= $ 84,600
Total Annual Cost	(DC + IC)	= $284,600

A preliminary cost evaluation can be made for each plant individually using the above cost figure and the respective estimated annual emissions. While significant additional fluoride removal is unlikely, it is assumed for the purposes of this cost analysis that all the fluorides from the scrubbing systems proposed by WSAC are captured by the additional scrubber.

For the B Phosphoric Acid Plant, the cost of fluoride control can be estimated as follows:

Annual cost of fluoride control = ($284,600 / 4.1 tpy) = $ 69,400/ton

For the D Phosphoric Acid Plant, the cost of fluoride control can be estimated as follows:

Annual Cost of fluoride control = ($284,600 / 5.4 tpy) = $ 52,700/ton

For the C&D Superphosphoric Acid Plant, the cost of fluoride control can be estimated as follows:

Annual Cost of fluoride control = ($284,600 / 3.8 tpy) = $ 74,900/ton

For Acid Clarification, the cost of fluoride control can be estimated as follows:

Annual Cost of fluoride control = ($284,600 / 13.1 tpy) = $ 21,700/ton

For the X-Train (dical), the cost of fluoride control can be estimated as follows:

Annual Cost of fluoride control = ($284,600 / 6.0 tpy) = $ 47,400/ton

The use of additional packed scrubbers is rejected as BACT based on the above preliminary cost evaluation.

Treated water recirculation is rejected as BACT based on costs evaluated for a similar project for a lined pond and lime treatment that exceed even the costs associated with a packed scrubber. Further, the treated water containment integrity and storm contingencies can add considerable unnecessary environmental liability.

It should be noted that the historical fluoride emissions measurements from the phosphoric

acid and SPA plants indicate that the current scrubber configurations result in emissions of fluorides well below the respective NSPS.

Although WSAC is not subject to the MACT standards, the proposed fluoride emission limits for the phosphoric and SPA plants are equivalent to the respective standards under 40 CFR 63. Furthermore, the proposed fluoride emission rate for the phosphoric acid plant is as stringent as the limit imposed by FDEP, of 0.0135 lb/ton P2O5 input on Cargill Fertilizer's phosphoric acid plant, reflecting FDEP's most recent BACT determination for this source category.

The product acid tanks are also subject to BACT, as they are included in the proposed project. However, BACT-based emissions limits are usually not considered for this relatively minor source. The tank emissions are presently adequately controlled by the pond water scrubber that also serves the C&D SPA plant. This scrubbing arrangement is considered BACT for this source. Indeed, many facilities do not even control fluoride emissions from the phosphoric acid tanks.

4.3 BACT CONCLUSION

Based on the above discussion, WSAC proposes the continued use of the existing pond water scrubbers as BACT and will limit fluoride emissions to the following levels:

X-Train, using venturi scrubbers, 0.03 lb/ton product.
B Phosphoric Acid Plant, using packed cross-flow scrubber, 0.0135 lb/ton P2O5 input.
D Phosphoric Acid Plant, using packed cross-flow scrubber, 0.0135 lb/ton P2O5 input.
Acid Clarification, using packed wet scrubber, 0.03 lb/ton P2O5 input
C&D SPA, using packed wet scrubber, 0.0087 lb/ton P2O5 input.
Product Acid Tanks, using common packed wet scrubber serving the C&D SPA.

5.0 AIR IMPACTS ANALYSIS

No ambient air standards analysis is required for fluorides as there are no applicable standards.

6.0 GOOD ENGINEERING PRACTICE STACK HEIGHT

The criteria for good engineering practice stack height states that the height of a stack should not exceed the greater of 65 meters (213) feet or the height of nearby structures plus the lesser of 1.5 times the height or cross-wind width of the nearby structure. This stack height policy is designed to prevent achieving ambient air quality goals solely through the use of excessive stack heights and air dispersion.

The stacks associated with the proposed project are less than 213 feet in height above-grade. This satisfies the good engineering practice (GEP) stack height criteria.

7.0 IMPACTS ON SOILS, VEGETATION AND VISIBILITY

7.1 IMPACTS ON SOILS AND VEGETATION

No adverse effects are expected on the soils, vegetation or visibility from the fluorides emissions associated with the proposed project based on past FDEP assessment of fluoride levels in the vicinity of the proposed project.

7.2 GROWTH RELATED IMPACTS

The proposed project will require no increase in personnel to operate the plant. No project related growth impacts are expected.

7.3 VISIBILITY IMPACTS

As fluoride gas is not visible, no adverse visibility impacts are expected as a result of the proposed project.

7.4 IMPACTS ON AIR QUALITY RELATED VALUES

As the proposed project is near a Class I Area (Okefenokee), an AQRV is required. The proposed project will result in an overall reduction in phosphoric acid production capacity at the site. Consequently, AQRV impacts from the proposed project are expected to be insignificant.

8.0 CONCLUSION

It can be concluded from the information in this report that the proposed project, as described in this report, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other provision of Chapter 62, FAC.

APPENDIX A

EMISSION CALCULATIONS

The emission changes resulting from the proposed project can be estimated using the following approach:

NET EMISSIONS = PROPOSED – ACTUAL – CONTEPORANEOUS

1.0 Proposed Emissions

The emissions from A and C Phosphoric Acid Plants will be zero, as these plant will be permanently shut down.

1.1 B Phosphoric Acid Plant

F, hr = 100 tph P2O5 input x 0.0135 lbF/ton P2O5 input
= 1.35 lbs/hr

F, yr = 600,000 tpy P2O5 input x 0.0135 lbF/ton P2O5 input x ton/2000 lbs
= 4.1 tpy

1.2 D Phosphoric Acid Plant

F, hr = 110 tph P2O5 input x 0.0135 lbF/ton P2O5 input
= 1.49 lbs/hr

F, yr = 800,000 tpy P2O5 input x 0.0135 lbF/ton P2O5 input x ton/2000 lbs
= 5.4 tpy

1.3 Acid Clarification Plant

F, hr = 110 tph P2O5 input x 0.03 lbF/ton P2O5 input
= 3.3 lbs/hr

F, yr = 876,000 tpy P2O5 input x 0.03 lbF/ton P2O5 input x ton/2000 lbs
= 13.1 tpy

1.4 C&D Superphosphoric Acid Plant

F, hr = 110 tph P2O5 input x 0.0087 lbF/ton P2O5 input
= 0.96 lbs/hr

F, yr = 876,000 tpy P2O5 input x 0.0087 lbF/ton P2O5 input x ton/2000 lbs
= 3.8 tpy

1.5 X-Train (Dical)

Main Stack:

F, hr = 55 tph product x 0.03 lbF/ton product
= 1.65 lbs/hr

F, yr = 400,000 tpy product x 0.03 lbF/ton product x ton/2000 lbs
= 6.0 tpy

PM/PM10, hr = 55 tph product x 0.18 lb/ton product
= 9.9 lbs/hr

PM/PM10, yr = 400,000 tpy product x 0.18 lb/ton product x ton/2000 lbs
= 36.0 tpy

SO2, hr = 0.064 MMCF/hr x 0.6 lb/MMCF
= 0.04 lbs/hr

SO2, yr = 564 MMCF/yr x 0.6 lb/MMCF x ton/2000 lbs
= 0.17 tpy

NOX, hr = 0.064 MMCF/hr x 100 lb/MMCF
= 6.4 lbs/hr

NOX, yr = 564 MMCF/yr x 100 lb/MMCF x ton/2000 lbs
= 28.2 tpy

CO, hr = 0.064 MMCF/hr x 84 lb/MMCF
= 5.4 lbs/hr

CO, yr = 564 MMCF/yr x 84 lb/MMCF x ton/2000 lbs
= 23.7 tpy

VOC, hr = 0.064 MMCF/hr x 2.8 lb/MMCF
= 0.18 lbs/hr

VOC, yr = 564 MMCF/yr x 2.8 lb/MMCF x ton/2000 lbs
= 0.79 tpy

Dedust Baghouse (25,000 cfm)

PM/PM10 = 25,000 cf/min x 0.015 gr/cf x lb/7000 gr x 60 min/hr
= 3.2 lb/hr
x hr/55 ton product
= 0.058 lb/ton product

PM/PM10, yr = 400,000 tpy product x 0.058 lb/ton product x ton/2000 lbs
= 11.6 tpy

Shipping Area Baghouse (18,000 cfm)

PM/PM10 = 18,000 cf/min x 0.015 gr/cf x lb/7000 gr x 60 min/hr
= 2.3 lb/hr
x hr/55 ton product
= 0.042 lb/ton product

PM/PM10, yr = 400,000 tpy product x 0.042 lb/ton product x ton/2000 lbs
= 8.4 tpy

Limestone Bin Baghouse (6,000 cfm)

PM/PM10 = 6,000 cf/min x 0.015 gr/cf x lb/7000 gr x 60 min/hr
= 0.77 lb/hr
x hr/55 ton product
= 0.014 lb/ton product

PM/PM10, yr = 400,000 tpy product x 0.014 lb/ton product x ton/2000 lbs
= 2.8 tpy

Fines Baghouse (6,000 cfm)

PM/PM10 = 6,000 cf/min x 0.015 gr/cf x lb/7000 gr x 60 min/hr
= 0.77 lb/hr
x hr/55 ton product
= 0.014 lb/ton product

PM/PM10, yr = 400,000 tpy product x 0.014 lb/ton product x ton/2000 lbs
= 2.8 tpy

New Fugitive Dust Collection Baghouse (40,000 cfm)

PM/PM10 = 40,000 cf/min x 0.015 gr/cf x lb/7000 gr x 60 min/hr
= 5.1 lb/hr
x hr/55 ton product
= 0.09 lb/ton product

PM/PM10, yr = 400,000 tpy product x 0.09 lb/ton product x ton/2000 lbs
= 18.0 tpy

2.0 Actual Emissions

Actual emissions are estimated using stack test data and annual operating hours.

2.1 A Phosphoric Acid Plant

F, 1998 = 0.04 lb/hr x 6774 hrs/yr x ton/2000 lbs
= 0.14 tpy

F, 1999 = 0.03 lb/hr x 3664 hrs/yr x ton/2000 lbs
= 0.05 tpy

F, Avg. = (0.14 + 0.05) tpy /2
= 0.10 tpy

2.2 B Phosphoric Acid Plant

F, 1998 = 0.08 lb/hr x 7385 hrs/yr x ton/2000 lbs
= 0.30 tpy

F, 1999 = 0.13 lb/hr x 8091 hrs/yr x ton/2000 lbs
= 0.53 tpy

F, Avg. = (0.30 + 0.53) tpy /2
= 0.42 tpy

2.3 C Phosphoric Acid Plant (not tested in 1999)

F, 1998 = 0.23 lb/hr x 6982 hrs/yr x ton/2000 lbs
= 0.80 tpy

F, 1999 = 0.23 lb/hr x 2410 hrs/yr x ton/2000 lbs
= 0.28 tpy

F, Avg. = (0.80 + 0.28) tpy /2
= 0.54 tpy

2.4 D Phosphoric Acid Plant

F, 1998 = 0.37 lb/hr x 7752 hrs/yr x ton/2000 lbs
= 1.43 tpy

F, 1999 = 0.20 lb/hr x 7615 hrs/yr x ton/2000 lbs
= 0.76 tpy

F, Avg. = (1.43 + 0.76) tpy /2
= 1.10 tpy

2.5 Acid Clarification Plant

F, 1998 = 1.79 lb/hr x 6878 hrs/yr x ton/2000 lbs
= 6.15 tpy

F, 1999 = 0.61 lb/hr x 6976 hrs/yr x ton/2000 lbs
= 2.13 tpy

F, Avg. = (6.15 + 2.13) tpy /2
= 4.14 tpy

2.6 C&D Superphosphoric Acid Plant (tested every five years)

F, 1998 = 0.52 lb/hr x 6283 hrs/yr x ton/2000 lbs
= 1.63 tpy

F, 1999 = 0.52 lb/hr x 6703 hrs/yr x ton/2000 lbs
= 1.74 tpy

F, Avg. = (1.63 + 1.74) tpy /2
= 1.69 tpy

2.7 X-Train (Dical)

Main Stack:

F, 1998 = (0.15 + 0.21) / 2 lb/hr x 3925 hrs/yr x ton/2000 lbs
= 0.35 tpy

F, 1999 = 0.23 lb/hr x 4202 hrs/yr x ton/2000 lbs
= 0.48 tpy

F, Avg. = (0.38 + 0.48) tpy /2
= 0.43 tpy

PM, 1998 = (8.38 + 6.91) / 2 lb/hr x 3925 hrs/yr x ton/2000 lbs
= 15.0 tpy

PM, 1999 = 6.78 lb/hr x 4202 hrs/yr x ton/2000 lbs
= 14.2 tpy

PM, Avg. = (15.0 + 14.2) tpy /2
= 14.6 tpy

Emissions of products of combustion are estimated based on the annual natural gas use.

N. Gas Use, hr = 0.044 MMCF
N. Gas Use, 1998 = 144 MMCF
N. Gas Use, 1999 = 220 MMCF

SO2, hr = 0.044 MMCF/yr x 0.6 lb/MMCF
= 0.03 lb/hr

SO2, 1998 = 144 MMCF/yr x 0.6 lb/MMCF x ton/2000 lbs
= 0.04 tpy

SO2, 1999 = 220 MMCF/yr x 0.6 lb/MMCF x ton/2000 lbs
= 0.07 tpy

SO2, avg. = (0.04 +0.07) tpy
= 0.06 tpy

NOX, hr = 0.044 MMCF/yr x 100 lb/MMCF
= 4.4 lb/hr

NOX, 1998 = 144 MMCF/yr x 100 lb/MMCF x ton/2000 lbs
= 7.2 tpy

NOX, 1999 = 220 MMCF/yr x 100 lb/MMCF x ton/2000 lbs
= 11.0 tpy

NOX, avg. = (7.2 +11.0) tpy
= 9.1 tpy

CO, hr = 0.044 MMCF/yr x 84 lb/MMCF
= 3.7 lb/hr

CO, 1998 = 144 MMCF/yr x 84 lb/MMCF x ton/2000 lbs
= 6.0 tpy

CO, 1999 = 220 MMCF/yr x 84 lb/MMCF x ton/2000 lbs
= 9.2 tpy

CO, avg. = (6.0 +9.2) tpy
= 7.6 tpy

VOC, hr = 0.044 MMCF/yr x 2.8 lb/MMCF
= 0.12 lb/hr

VOC, 1998 = 144 MMCF/yr x 2.8 lb/MMCF x ton/2000 lbs
= 0.20 tpy

VOC, 1999 = 220 MMCF/yr x 2.8 lb/MMCF x ton/2000 lbs
= 0.31 tpy

VOC, avg. = (0.20 +0.31) tpy
= 0.26 tpy

As the existing miscellaneous baghouses are providing inadequate dust control, actual emissions from these baghouses are estimated using an oulet particulate matter loading of 0.03 gr/cf.

Dedust Baghouse (25,000 cfm)

PM/PM10 = 25,000 cf/min x 0.03 gr/cf x lb/7000 gr x 60 min/hr
= 6.4 lb/hr
x (1361 + 1742) hrs / 2 x ton/2000 lbs
= 5.0 tpy

Shipping Area Baghouse (18,000 cfm)

PM/PM10 = 18,000 cf/min x 0.03 gr/cf x lb/7000 gr x 60 min/hr
= 4.6 lb/hr
x (1361 + 1742) hrs / 2 x ton/2000 lbs
= 3.6 tpy

Limestone Bin Baghouse (6,000 cfm)

PM/PM10 = 6,000 cf/min x 0.03 gr/cf x lb/7000 gr x 60 min/hr
= 1.5 lb/hr
x (1154 + 1883) hrs / 2 x ton/2000 lbs
= 1.1 tpy

Fines Baghouse (6,000 cfm)

PM/PM10 = 6,000 cf/min x 0.03 gr/cf x lb/7000 gr x 60 min/hr
= 1.5 lb/hr
x (1361 + 1742) hrs / 2 x ton/2000 lbs
= 1.2 tpy

3.0 Contemporaneous Emissions

The new fugitive dust collection baghouse will reduce the particulate loading to the existing dust scrubber and capture fugitive dust currently generated by inadequate airflow in the X-Train dust control system. The PM emissions reduction is estimated using the plant engineering staff's knowledge of the process and AP-42 factors.

The potential annual emissions from the product and recycle (~7 x production rate) material handling area, based on a PM emission factor from AP-42, Table 8.5.3-1, of 0.06 lb/ton, are estimated as follows:

PM = 0.06 lb/ton x 40 tph x 7 x 8760 hrs/yr x ton/2000 lbs = 73.6 tpy

Based on the proposed change, about 10,000 cfm from the current 40,000 cfm (30,000 cfm optimum) dust scrubber inlet will be diverted to the new baghouse operating at 40,000 cfm, or a resulting total of 70,000 cfm for the material handling area. Assuming PM emissions are proportional to airflow, a preliminary estimate of the emissions to the new baghouse is as follows:

PM = 73.6 tpy x (1 - 30/70) = 42.1 tpy

The PM emissions material drop on the floor of the plant, based on an amount of 5 tons per week estimated by plant staff, are estimated using AP-42 Equation 1 and tabulated values in Chapter 13.2.4 .

$E = k \times 0.0032 \times (U/5)^{1.3} \times 1/(M/2)^{1.4}$

Where: E = emission factor, lb/ton
k = particle size multiplier (use 0.74)
U = mean wind speed, mph (use 5)
M = material moisture % (use 2)

$E = 0.74 \times 0.0032 \times (5/5)^{1.3} \times 1/(2/2)^{1.4} = 0.0024$ lb/ton

PM = 0.0024 lb/ton x 5 tons/wk x 52 wks/yr = 0.6 tpy

Total PM = (42.1 + 0.6) tpy = 42.7 tpy

Emissions from new Material Handling Area Baghouse (40,000 cfm)

PM/PM10 = 40,000 cf/min x 0.015 gr/cf x lb/7000 gr x 60 min/hr
= 5.1 lb/hr
x hr/55 ton product
= 0.09 lb/ton product

PM/PM10, yr = 400,000 tpy product x 0.09 lb/ton product x ton/2000 lbs
= 18.0 tpy

Net PM emissions <u>decrease</u> = (42.7 – 18.0) tpy = 24.7 tpy

Reductions in fugitive emissions from the storage and shipping areas can be similarly evaluated if deemed necessary by FDEP.

APPENDIX B

CURRENT TITLE V PERMIT CONDITIONS

(Please refer to 0470002-033-AV)

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

E.U. ID No.	Brief Description
002	"A" Phosphoric Acid Plant with fluoride and particulate matter emissions are controlled by a Multi-Staged Wet Cyclone and High Efficiency Wet Scrubber in series.

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

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The rate shall not exceed the Maximum 12-MRA Hourly Rate = 33.04 tons of 100% P2O5 input or Maximum Daily 1-Hour Average Rate = 37 tons 100% P2O5 input.
12-MRA (MRA - Monthly Rolling Average) Hourly Rate Maximum shall not be exceeded by the 12-MRA hourly rate calculated by averaging each monthly hourly average with the previous 11 monthly hourly averages.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; permit 0470002-034-AC]

B.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.3. Fluoride emissions shall not exceed 0.92 lb/hr and 4.0 TPY.
[Rule 62-296.403(2), F.A.C.]

B.4. Particulate Matter Emissions shall not exceed 36.54 lbs/hr and 160.0 TPY.
[Rule 62-296.320(4)(a), F.A.C.]

B.5. Visible Emissions shall not be equal to greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.6. Fluoride emissions stack test method shall be EPA Method 13A or 13B incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 09/01.
[Rule 62-296.403(3), F.A.C.; Rule 62-297.401, F.A.C.]

B.7. 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 every five years or on request with a frequency base date of 09/01/94.
[Rule 62-296.320(4)(a), F.A.C.; Rule 62-297.401, F.A.C.]

B.8. Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 09/01.
Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

Common Conditions - F.A.C. Test Requirements

B.9. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection NN.

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

E.U. ID No.	Brief Description
004	X-Train (Dical Process) with emissions controlled from EP (Emissions Points) below: 1. X-Train with Venturi and Cyclonic Scrubbers 2. Dedust bin with Baghouse 3. Shipping area with Baghouse 4. Limestone silo with Baghouse 5. Reclaim bin with Baghouse.

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

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The rate shall not exceed the Maximum 12-MRA Hourly Rate = 40 tons of product or Maximum Daily 1-Hour Average Rate = 45 tons of product.
12-MRA (MRA - Monthly Rolling Average) Hourly Rate Maximum shall not be exceeded by the 12-MRA hourly rate calculated by averaging each monthly hourly average with the previous 11 monthly hourly averages.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; permit 0470002-034-AC]

D.2. Methods of Operation are as follows:
1. In mode 1, Dical (dicalcium phosphate) with 18.5% P is produced.
2. In mode 2, Dical (dicalcium phosphate) with 21.0% P is produced.
Fuels fired are natural gas or fuel oil with a maximum sulfur content of 1.50%.
[Rule 62-213.410, F.A.C.]

D.3. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

D.4. For EP 1, mode 1 or 2, Fluoride emissions shall not exceed 0.63 lb/hr and 2.76 TPY.
[Rule 62-296.403(2), F.A.C.]

D.5. For EP 1, mode 1, Particulate Matter Emissions shall not exceed 46.11 lbs/hr and 201.96 TPY.
[Rule 62-296.320(4)(a), F.A.C.]

D.6. For EP 1, mode 2, Particulate Matter Emissions shall not exceed 45.11 lbs/hr and 197.62 TPY.
[Rule 62-296.320(4)(a), F.A.C.]

D.7. For EP 1, mode 1 or 2, Sulfur Dioxide Emissions shall not exceed 11.10 lbs/hr and 48.62 TPY.
[From PSD FL-83]

D.8. For EP 1, mode 1 or 2, Visible Emissions shall not be equal to greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

D.9. For EP 2, Visible Emissions shall not exceed 5% opacity.
[Rule 62-297.620(4), F.A.C.]

D.10. For EP 3, Visible Emissions shall not exceed 5% opacity.
[Rule 62-297.620(4), F.A.C.]

D.11. For EP 4, Visible Emissions shall not exceed 5% opacity.
[Rule 62-297.620(4), F.A.C.]

D.12. For EP 5, Visible Emissions shall not exceed 5% opacity.
[Rule 62-297.620(4), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

D.13. For EP 1, mode 1 or 2, Fluoride emissions stack test method shall be EPA Method 13A or 13B incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 03/11.
[Rule 62-296.403(3), F.A.C.; Rule 62-297.401, F.A.C.]

D.14. For EP 1, mode 1 or 2, 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 with frequency base date of 03/11
[Rule 62-296.320(4)(a), F.A.C.; Rule 62-297.401, F.A.C.]

D.15. Sulfur Dioxide Emissions in lieu of testing shall comply with the applicable in requirements Rule 62-297.440(1), F.A.C. or maintain a record of acceptable, certified analyses of all fuel oil fired and report annually with frequency base date of 03/01.

D.16. For EP 1, mode 1 or 2, Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 03/11.
Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

D.17. For EP 2, Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 03/11.
Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

D.18. For EP 3, Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 03/11.
Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

D.19. For EP 4, Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 03/11.
Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

D.20. For EP 5, Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 03/11.
Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

Common Conditions - On-Spec Used Oil/Lead

D.21. This emissions unit is also subject to the On-Spec Used Oil/Lead conditions in Subsection NN.

Common Conditions - F.A.C. Test Requirements

D.22. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection NN.

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

E.U. ID No.	Brief Description
019	"C" Phosphoric Acid Plant with fluoride and particulate matter emissions are controlled by a packed wet scrubber (F-4).

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

Essential Potential to Emit (PTE) Parameters

M.1. Permitted Capacity. The rate shall not exceed the Maximum 12-MRA Hourly Rate = 23.67 tons of 100% P2O5 input or Maximum Daily 1-Hour Average Rate = 27 tons 100% P2O5 input.
12-MRA (MRA - Monthly Rolling Average) Hourly Rate Maximum shall not be exceeded by the 12-MRA hourly rate calculated by averaging each monthly hourly average with the previous 11 monthly hourly averages.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; permit 0470002-034-AC]

M.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

M.3. Fluoride emissions shall not exceed 0.47 lb/hr and 2.05 TPY.
[Rule 62-204.800(7)(b)25., F.A.C.; 40 CFR 60.202, Subpart T]

M.4. Particulate Matter Emissions shall not exceed 5.0 lbs/hr and 21.9 TPY.
[PSD model allocation]

M.5. Visible Emissions shall not be equal to greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

M.6. Fluoride emissions stack test method shall be EPA Method 13A or 13B incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base day of 06/18.
[Rule 62-204.800(7)(b)25., F.A.C.; 40 CFR 60.202, Subpart T; Rule 62-297.401, F.A.C.]

M.7. Particulate Matter Emissions stack test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed every five years or on request with a frequency base date 06/18/95.
[Rule 62-296.320(4)(a), F.A.C.; Rule 62-297.401; F.A.C.]

M.8. Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 06/18.
[Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

Continuous Monitoring Requirements

M.9. A mass flow continuous monitoring system shall comply with the requirements in 40 CFR 60.203 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

M.10. A scrubber total pressure drop continuous monitoring system shall comply with the requirements in 40 CFR 60.203 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

Common Conditions - F.A.C. Test Requirements

M.11. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection NN.

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

E.U. ID No.	Brief Description
020	"B" Phosphoric Acid Plant with fluoride and particulate matter emissions are controlled by a packed wet scrubber.

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

Essential Potential to Emit (PTE) Parameters

N.1. Permitted Capacity. The rate shall not exceed the Maximum 12-MRA Hourly Rate = 74.99 tons of 100% P2O5 input or Maximum Daily 1-Hour Average Rate = 83 tons 100% P2O5 input.
12-MRA (MRA - Monthly Rolling Average) Hourly Rate Maximum shall not be exceeded by the 12-MRA hourly rate calculated by averaging each monthly hourly average with the previous 11 monthly hourly averages.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; permit 0470002-034-AC]

N.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

N.3. Fluoride emissions shall not exceed 1.50 lb/hr and 6.57 TPY.
[Rule 62-204.800(7)(b)25., F.A.C.; 40 CFR 60.202, Subpart T]

N.4. Particulate Matter Emissions shall not exceed 5.0 lbs/hr and 21.9 TPY.
[PSD model allocation]

N.5. Visible Emissions shall not be equal to greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

N.6. Fluoride emissions stack test method shall be EPA Method 13A or 13B incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base day of 09/26.
[Rule 62-204.800(7)(b)25., F.A.C.; 40 CFR 60.202, Subpart T; Rule 62-297.401, F.A.C.]

N.7. 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 every five years or on request with a frequency base date of 09/26/96.
[Rule 62-296.320(4)(a), F.A.C.; Rule 62-297.401; F.A.C.]

N.8. Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 09/26.
[Rule 62-296.320(4)(b), F.A.C.; Rule 62-297.401; F.A.C.]

Continuous Monitoring Requirements

N.9. A mass flow continuous monitoring system shall comply with the requirements in 40 CFR 60.203 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

N.10. A scrubber total pressure drop continuous monitoring system shall comply with the requirements in 40 CFR 60.203 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

Common Conditions - F.A.C. Test Requirements

N.11. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection NN.

Subsection [II] This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
069	"D" Phosphoric Acid Plant with fluoride and particulate matter emissions controlled by a wet scrubber.

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

Essential Potential to Emit (PTE) Parameters

II.1. Permitted Capacity. The rate shall not exceed the Maximum 12-MRA Hourly Rate = 85.22 tons of 100% P2O5 input (from 274.92 TPH of 31% phosphate rock) or Maximum Daily 1-Hour Average Rate = 95 tons 100% P2O5 input.
12-MRA (MRA - Monthly Rolling Average) Hourly Rate Maximum shall not be exceeded by the 12-MRA hourly rate calculated by averaging each monthly hourly average with the previous 11 monthly hourly averages.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; permit 0470002-034-AC]

II.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

II.3. Fluoride emissions shall not exceed 1.70 lb/hr and 7.43 TPY.
[Rule 62-204.800(7)(b)25., F.A.C.; 40 CFR 60.202, Subpart T]

II.4. Particulate Matter Emissions shall not exceed 42.52 lbs/hr and 185.73 TPY.
[Rule 62-296.320(4)(a), F.A.C.]

II.5. Visible Emissions shall not be equal to greater than 20% opacity.
[Rule 62-296.320(4)(b), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

II.6.. Fluoride emissions stack test method shall be EPA Method 13A or 13B incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 06/18.
[Rule 62-204.800(7)(b)25., F.A.C.; 40 CFR 60.202, Subpart T; Rule 62-297.401; F.A.C.]

II.7. 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 every five years or request with a frequency base date 06/18/95.
[Rule 62-296.320(4)(a), F.A.C.; Rule 62-297.401; F.A.C.]

II.8. Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 06/18.
[Rule 62-296.320(4)(b), F.A.C. Rule 62-297.401; F.A.C.]

Continuous Monitoring Requirements

II.9. A mass flow continuous monitoring system shall comply with the requirements in 40 CFR 60.203 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

II.10. A scrubber total pressure drop continuous monitoring system shall comply with the requirements in 40 CFR 60.203 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

Common Conditions - F.A.C. Test Requirements

II.11. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection NN.

Subsection [JJ] This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
070	"C" & "D" Superphosphoric Acid (SPA) Plants and east & west phosphoric acid storage tanks with fluoride emissions are controlled by a scrubber.
	Since the Synspar Plant has no air emissions, the limerock (LR) bin associated with it is included here for recordkeeping purposes. The particulate matter emissions from this bin are controlled by a bag collector.

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

Essential Potential to Emit (PTE) Parameters

JJ.1. Permitted Capacity. The combined rate shall not exceed the Maximum 12-MRA Hourly Rate = 84.2 tons of 100% P2O5 input or Maximum Daily 1-Hour Average Rate = 95 tons of 100% P2O5 input.
12-MRA (MRA - Monthly Rolling Average) Hourly Rate Maximum shall not be exceeded by the 12-MRA hourly rate calculated by averaging each monthly hourly average with the previous 11 monthly hourly averages.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; permit 0470002-034-AC]

JJ.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

JJ.3. From stack, Fluoride emissions shall not exceed 0.01 lb FL per ton P2O5 input; 0.84 lbs/hr and 3.69 TPY.
[Rule 62-204.800(7)(b), F.A.C.; 40 CFR 60.212, Subpart U]

JJ.4. From vent (LR), Visible Emissions shall not exceed 5% opacity.
[Rule 62-297.620(4), F.A.C.]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

JJ.5 Fluoride emissions stack test method shall be EPA Method 13A or 13B incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed every 5 years with a frequency base date 09/04/95.
[Rule 62-204.800(7)(b), F.A.C.; 40 CFR 60.214, Subpart U; Rule 62-297.401; F.A.C.]

JJ.6. From vent (LR), Visible Emissions test method shall be EPA Method 9 incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 09/04.
[Rule 62-297.401; F.A.C.]

Continuous Monitoring Requirements

JJ.7. A mass flow continuous monitoring system shall comply with the requirements in 40 CFR 60.213 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

JJ.8. A scrubber total pressure drop continuous monitoring system shall comply with the requirements in 40 CFR 60.213 incorporated and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

Common Conditions - F.A.C. Test Requirements

JJ.9. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection NN.

Subsection [KK] This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
071	Acid Clarification Plant with fluoride emissions controlled by a wet scrubber.

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

Essential Potential to Emit (PTE) Parameters

KK.1. Permitted Capacity. The rate shall not exceed the Maximum 12-MRA Hourly Rate = 90.18 tons of 100% P2O5 input or Maximum Daily 1-Hour Average Rate = 100 tons 100% P2O5 input.
12-MRA (MRA - Monthly Rolling Average) Hourly Rate Maximum shall not be exceeded by the 12-MRA hourly rate calculated by averaging each monthly hourly average with the previous 11 monthly hourly averages.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; permit 0470002-034-AC]

KK.2. Hours of Operation. The hours of operation for this emissions unit shall not exceed 8760 hours/year.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

KK.3. Fluoride emissions shall not exceed (0.05 lb FL per ton P2O5 input)[1]; 4.51 lbs/hr and 19.75 TPY.
[Rule 62-210.200(42), F.A.C.; ([1]BACT from AC24-2722 issued 02-28-78)]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

KK.4. Fluoride emissions stack test method shall be EPA Method 13A or 13B incorporated and adopted by reference in Chapter 62-297, F.A.C. and be performed annually with a frequency base date of 06/17.
[Rule 62-297.401; F.A.C.]

Common Conditions - F.A.C. Test Requirements

KK.5. This emissions unit is also subject to applicable F.A.C. Test Requirements in Subsection NN.