



KOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 • FAX 377-7158

KA 124-97-01

July 9, 1997

Mr. A. A. Linero
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

JUL 14 1997

BUREAU OF
AIR REGULATION

Subject: Polk County - AP
IMC-Agrico Company (New Wales)
DAP 2 Plant Production Increase

1050059-020-AC
PSD-FI-241

Dear Mr. Linero:

Enclosed are eight (8) copies of an application for an increase in the production rate of the DAP 2 Plant located at the IMC-Agrico New Wales facility, Polk County, Florida.

A disk containing the air dispersion modeling output will be submitted under separate cover.

Also enclosed is a check in the amount of \$7500 (PSD permit application processing fee).

If you have any further questions, please call Pradeep Raval or me.

Very truly yours,

KOGLER & ASSOCIATES

John B. Kogler, Ph.D., P.E.

JBK:par
encl.

c: C. Dave Turley, IMC-Agrico
Jerry Kissel, FDEP Tampa, w/o encl.

cc: J. Reynolds, BAR
C. Holladay, BAR
B. Thomas, SWD
EPA
NPS

Polk Co.



IMC-AGRICO COMPANY
 P.O. BOX 2005 MULBERRY, FLORIDA 33860
 OPERATING ACCOUNT

The Northern Trust Company
 Chicago, IL 60610
 Payable through
 Northern Trust Bank/DuPage
 Oak Brook, IL
 70-2382
 719

CHECK NO. 161280

DATE		
MONTH	DAY	YEAR
07	11	97

PAY ONLY SEVEN **500.00**
 FIVE ZERO ZERO CTSCTS

SEVEN THOUSAND FIVE HUNDRED DOLLARS AND 00 CENTS *****

PAY TO THE ORDER OF

VOID OVER \$7,500.00

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 2600 BLAIR STONE RD
 TALLAHASSEE FL 32399

Authorized Signature

000161280 10719238281000056405

THE ORIGINAL DOCUMENT HAS A REFLECTIVE WATERMARK ON THE BACK. HOLD AT AN ANGLE TO VIEW WHEN CHECKING THE ENDORSEMENT.

NO. 161280 F53568

IMC-AGRICO CO. P.O. BOX 2005 MULBERRY, FL. 33860

INVOICE DATE			INVOICE NUMBER	REFERENCE NUMBER	PURCHASE ORDER NO.	INVOICE AMOUNT	DISCOUNT	NET PAYABLE
MONTH	DAY	YEAR						
07	07	97	CK REQ070797	933-139M		7500.00 7500.00	.00	7500.00 7500.00



Department of Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

RECEIVED

APPLICATION FOR AIR PERMIT - LONG FORM

JUL 14 1997

BUREAU OF
AIR REGULATION

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

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: IMC-Agrico Company	
2. Site Name: IMC-Agrico (New Wales)	
3. Facility Identification Number: 1050059 [] Unknown	
4. Facility Location: Street Address or Other Locator: 3095 Highway 640 City: Mulberry County: Polk Zip Code: 33860	
5. Relocatable Facility? [] Yes [X] No	6. Existing Permitted Facility? [X] Yes [] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<i>July 14, 1997</i>
2. Permit Number:	<i>1050059-020-AC</i>
3. PSD Number (if applicable):	<i>PSD-F1-241</i>
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: E.M. Newberg, Vice President and General Manager, Concentrated Phosphate Operations - Florida
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: IMC-Agrico Company Street Address: P.O. Box 2000 City: Mulberry State: FL Zip Code: 33860
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (941) 428-2500 Fax: ()-
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., 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.</i> _____ <i>E.M. Newberg</i> Signature _____ 7/11/97 Date

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID	Description of Emissions Unit	Permit Type
045	DAP Plant #2--East Train	
(046)	DAP Plant #2--West Train	
(047)	DAP Plant #2 West Product Cooler	
(056)	DAP Plant #2 East Product Cooler	

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., 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: _____

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit to be revised: _____

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

Air operation permit revision for a Title V source 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 to be revised: _____

Reason for revision: _____

Category II: All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain:

- Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s):

- Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

- Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain:

- Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: **See Report.**

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

Current operation permit number(s): _____

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

Application Processing Fee

Check one:

Attached - Amount: \$7500

Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations: IMC-Agrico proposes to increase the allowable production rate of the DAP 2 Plant at the existing New Wales facility. The DAP 2 Plant may produce DAP as well as MAP. No major equipment changes are proposed. Additional information is provided in the attached Report. It is requested that a single permit be issued for this emissions unit.
2. Projected or Actual Date of Commencement of Construction: 11-1-97
3. Projected Date of Completion of Construction: 12-31-98

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 NW 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:*

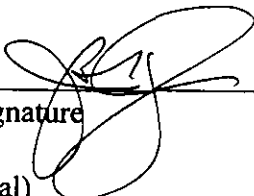
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions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

Date 7/9/97

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:

Pradeep Raval

2. Application Contact Mailing Address:

Organization/Firm: **Koogler & Associates**

Street Address: **4014 NW 13th Street**

City: **Gainesville** State: **FL** Zip Code: **32609**

3. Application Contact Telephone Numbers:

Telephone: **(352) 377 - 5822**

Fax: **(352) 377 - 7158**

Application Comment

The emissions unit information for the proposed project is provided in the format that is currently in FDEP database, in order to facilitate FDEP review. However, the east train, west train, east cooler and west cooler (which are currently identified as separate emissions units) are all one emissions unit pursuant to the definition under NSPS.

Facility Regulatory Classifications

1. Small Business Stationary Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
2. Title V Source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Synthetic Non-Title V Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Synthetic Minor Source of Pollutants Other than HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. Major Source of Hazardous Air Pollutants (HAPs)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7. Synthetic Minor Source of HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. One or More Emissions Units Subject to NSPS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9. One or More Emission Units Subject to NESHAP? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10. Title V Source by EPA Designation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
11. Facility Regulatory Classifications Comment (limit to 200 characters):

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

NA

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

SEE REPORT.	

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
PM/PM10	A
SO2	A
NOX	A
SAM	A
FL	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information: Pollutant _____ of _____

1. Pollutant Emitted: NA
2. Requested Emissions Cap: _____ (lb/hour) _____ (tons/year)
3. Basis for Emissions Cap Code:
4. Facility Pollutant Comment (limit to 400 characters):

Facility Pollutant Detail Information: Pollutant _____ of _____

1. Pollutant Emitted:
2. Requested Emissions Cap: _____ (lb/hour) _____ (tons/year)
3. Basis for Emissions Cap Code:
4. Facility Pollutant Comment (limit to 400 characters):

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input checked="" type="checkbox"/> Attached, Document ID: Report <input type="checkbox"/> Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
8. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID:_____
<input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed
<input checked="" type="checkbox"/> Not Applicable
9. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable

<p>11. Identification of Additional Applicable Requirements: <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>12. Compliance Assurance Monitoring Plan: <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>13. Risk Management Plan Verification:</p> <p><input type="checkbox"/> Plan Submitted to Implementing Agency - Verification Attached, Document ID:_____</p> <p><input type="checkbox"/> Plan to be Submitted to Implementing Agency by Required Date</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable</p>

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

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.

2. Single Process, Group of Processes, or Fugitive Only? 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).

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.

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): DAP Plant #2--East Train		
2. Emissions Unit Identification Number: 045 [<input type="checkbox"/>] No Corresponding ID [<input type="checkbox"/>] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No	5. Emissions Unit Major Group SIC Code: 28
6. Emissions Unit Comment (limit to 500 characters): Based on the definition under NSPS , the east/west trains and associated coolers should be designated as one emissions unit.		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters): Wet Scrubber
2. Control Device or Method Code: 013

Emissions Unit Information Section 1 of 4

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Details

1. Initial Startup Date: NA		
2. Long-term Reserve Shutdown Date: NA		
3. Package Unit: NA		
Manufacturer:	Model Number:	
4. Generator Nameplate Rating: NA MW		
5. Incinerator Information: NA		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:		36 mmBtu/hr
2. Maximum Incineration Rate: NA	lb/hr	tons/day
3. Maximum Process or Throughput Rate: NA		
4. Maximum Production Rate: 170 tph DAP		
5. Operating Capacity Comment (limit to 200 characters):		
<p>The DAP 2 Plant may produce DAP as well as MAP. The combined capacity of the two trains corresponds to 340 tph DAP.</p>		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

A large, empty rectangular box with a thin black border, occupying the central portion of the page. It is intended for the user to provide a Rule Applicability Analysis for regulated emissions units.

Emissions Unit Information Section 1 of 4

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

SEE REPORT.	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: DAP 2 East Train	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions 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: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	171 feet
7. Exit Diameter:	6.0 feet
8. Exit Temperature:	110 °F

Emissions Unit Information Section 1 of 4

9. Actual Volumetric Flow Rate:	110,000 acfm
10. Percent 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):	

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas Burning	
2. Source Classification Code (SCC): 3-90-006-99	
3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 0.035	5. Maximum Annual Rate: 307
6. Estimated Annual Activity Factor: NA	
7. Maximum Percent Sulfur: NA	8. Maximum Percent Ash: NA
9. Million Btu per SCC Unit: 1025	
10. Segment Comment (limit to 200 characters): The combined total annual rate for the two trains corresponds to 614 MMCF.	

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 2 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Residual Oil Burning	
2. Source Classification Code (SCC): 3-90-004-99	
3. SCC Units: 1000 Gallons Burned (TGB)	
4. Maximum Hourly Rate: 0.24	5. Maximum Annual Rate: 1300
6. Estimated Annual Activity Factor: NA	
7. Maximum Percent Sulfur: 2.5	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 150	
10. Segment Comment (limit to 200 characters): Annual fuel limitation to avoid PSD review. The combined total annual rate for the two trains corresponds to 2600 TGB.	

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 3 of 3

<p>1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):</p> <p>Diammonium Phosphate Production</p>	
<p>2. Source Classification Code (SCC): 3-01-030-24</p>	
<p>3. SCC Units: Tons Fertilizer Granulated</p>	
<p>4. Maximum Hourly Rate: 170</p>	<p>5. Maximum Annual Rate: 1,489,200</p>
<p>6. Estimated Annual Activity Factor: NA</p>	
<p>7. Maximum Percent Sulfur: NA</p>	<p>8. Maximum Percent Ash: NA</p>
<p>9. Million Btu per SCC Unit: NA</p>	
<p>10. Segment Comment (limit to 200 characters):</p> <p>The DAP 2 Plant may produce DAP as well as MAP. The combined capacity of the two trains corresponds to 340 tph and 2,978,400 tpy DAP.</p>	

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO₂	000	000	EL
PM/PM10	013	000	EL
NO_x	000	000	EL
FL	013	000	EL
CO	000	000	NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: SO₂		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	22 lb/hour	59.6 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year		
6. Emission Factor: 0.0917 lb/gal Reference: Permit limit equivalent		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): SO₂ = 0.0917 lb/gal x 240 gal/hr = 22 lbs/hr SO₂ = 0.0917 lb/gal x 1,300,000 gal/yr x ton/2000 lbs = 59.6 tpy		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Annual SO₂ emissions limited by annual quantity of fuel use to avoid PSD review.		

Emissions Unit Information Section 1 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: ESCPSD		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 22 lb/hr		
4. Equivalent Allowable Emissions:	22.0 lb/hour	59.6 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 6C		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		
Annual SO2 emissions limited by limiting annual fuel use to avoid PSD review.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: PM/PM10		
2. Total Percent Efficiency of Control:	99 %	
3. Potential Emissions:	14.1 lb/hour	61.8 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year		
6. Emission Factor: 14.1 lb/hour Reference: PERMIT		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): PM/PM10 = 14.1 LB/HR X 8760 HRS/YR X TON/2000 LBS = 61.8 TPY		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		

Emissions Unit Information Section 1 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 14.1 lb/hour		
4. Equivalent Allowable Emissions:	14.1 lb/hour	61.8 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 5		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): BACT		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: NOx		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	12.6 lb/hour	34.1 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year		
6. Emission Factor: 0.0525 lb/gal Reference: Permit limit equivalent		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): NOx = 0.0525 lb/gal x 240 gal/hr = 12.6 lb/hr NOx = 0.0525 lb/gal x 1,300,000 gal/yr x ton/2000 lbs = 34.1 TPY		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Annual NOx emissions limited by annual quantity of fuel use to avoid PSD review.		

Emissions Unit Information Section 1 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: ESCPSD		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 12.6 lb/hour		
4. Equivalent Allowable Emissions:	12.6 lb/hour	34.1 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 7E		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Annual NOx emissions limited by annual quantity of fuel use to avoid PSD review.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: FL	
2. Total Percent Efficiency of Control:	95 %
3. Potential Emissions:	4.2 lb/hour 18.4 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: 4.2 lb/hour Reference: Permit limit proration.	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): FL = 4.2 LB/HR X 8760 HRS/YR X TON/2000 LBS = 18.4 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	

Emissions Unit Information Section 1 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 4.2 lb/hour		
4. Equivalent Allowable Emissions:	4.2 lb/hour	18.4 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 13A OR 13B		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		
40 CFR 60.222. Combined total emission limit for the plant of 9.6 lb/hr is prorated.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)**

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE	
2. Basis for Allowable Opacity:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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): GENERAL VE	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	
2. Basis for Allowable Opacity:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)**

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

-] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

Emissions Unit Information Section 1 of 4

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
SO2	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
NO2	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
4. Baseline Emissions:			
PM	lb/hour	tons/year	
SO2	lb/hour	tons/year	
NO2		tons/year	
5. PSD Comment (limit to 200 characters):			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)**

Supplemental Requirements for All Applications

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation [X] Attached, Document ID: <u>REPORT</u> [] Not Applicable
11. Alternative Modes of Operation (Emissions Trading) [] Attached, Document ID: _____ [X] Not Applicable
12. Identification of Additional Applicable Requirements [X] Attached, Document ID: <u>REPORT</u> [] Not Applicable
13. Compliance Assurance Monitoring Plan [] Attached, Document ID: _____ [X] Not Applicable
14. Acid Rain 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: _____ [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

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.

2. Single Process, Group of Processes, or Fugitive Only? 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).

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.

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): DAP Plant #2--West Train		
2. Emissions Unit Identification Number: 046 [<input type="checkbox"/>] No Corresponding ID [<input type="checkbox"/>] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No	5. Emissions Unit Major Group SIC Code: 28
6. Emissions Unit Comment (limit to 500 characters): 		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters): Wet Scrubber
2. Control Device or Method Code: 013

Emissions Unit Information Section 2 of 4

B.

1. Description (limit to 200 characters):

2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):

2. Control Device or Method Code:

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Details

1. Initial Startup Date: NA		
2. Long-term Reserve Shutdown Date: NA		
3. Package Unit: NA		
Manufacturer:	Model Number:	
4. Generator Nameplate Rating: NA	MW	
5. Incinerator Information: NA		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 36	mmBtu/hr
2. Maximum Incineration Rate: NA	lb/hr tons/day
3. Maximum Process or Throughput Rate: NA	
4. Maximum Production Rate: 170 tph DAP	
5. Operating Capacity Comment (limit to 200 characters):	
<p>The DAP 2 Plant may produce DAP as well as MAP. The combined capacity of the two trains corresponds to 340 tph DAP.</p>	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

A large, empty rectangular box with a thin black border, occupying the central portion of the page. It is intended for the user to provide a Rule Applicability Analysis for regulated emissions units.

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: DAP 2 West Train	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions 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: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	171 feet
7. Exit Diameter:	6.0 feet
8. Exit Temperature:	110 °F

Emissions Unit Information Section 2 of 4

9. Actual Volumetric Flow Rate:	110,000 acfm
10. Percent 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): No. 2 DAP West Train	

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas Burning	
2. Source Classification Code (SCC): 3-90-006-99	
3. SCC Units: Million Cubic Feet Burned	
4. Maximum Hourly Rate: 0.035	5. Maximum Annual Rate: 307
6. Estimated Annual Activity Factor: NA	
7. Maximum Percent Sulfur: NA	8. Maximum Percent Ash: NA
9. Million Btu per SCC Unit: 1025	
10. Segment Comment (limit to 200 characters): The combined total annual rate for the two trains corresponds to 614 MMCF.	

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 2 of 3

<p>1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):</p> <p>Residual Oil Burning</p>	
<p>2. Source Classification Code (SCC): 3-90-004-99</p>	
<p>3. SCC Units: 1000 Gallons Burned (TGB)</p>	
<p>4. Maximum Hourly Rate: 0.24</p>	<p>5. Maximum Annual Rate: 1300</p>
<p>6. Estimated Annual Activity Factor: NA</p>	
<p>7. Maximum Percent Sulfur: 2.5</p>	<p>8. Maximum Percent Ash: NA</p>
<p>9. Million Btu per SCC Unit: 150</p>	
<p>10. Segment Comment (limit to 200 characters):</p> <p>Annual fuel limitation to avoid PSD review. The combined total annual rate for the two trains corresponds to 2600 TGB.</p>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 3 of 3

<p>1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):</p> <p>Diammonium Phosphate Production</p>	
<p>2. Source Classification Code (SCC): 3-01-030-24</p>	
<p>3. SCC Units: Tons Fertilizer Granulated</p>	
<p>4. Maximum Hourly Rate: 170</p>	<p>5. Maximum Annual Rate: 1,489,200</p>
<p>6. Estimated Annual Activity Factor: NA</p>	
<p>7. Maximum Percent Sulfur: NA</p>	<p>8. Maximum Percent Ash: NA</p>
<p>9. Million Btu per SCC Unit: NA</p>	
<p>10. Segment Comment (limit to 200 characters):</p> <p>The DAP 2 Plant may produce DAP as well as MAP. The combined capacity of the two trains corresponds to 340 tph and 2,978,400 tpy DAP.</p>	

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO₂	000	000	EL
PM/PM10	013	000	EL
NO_x	000	000	EL
FL	013	000	EL
CO	000	000	NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: SO₂		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	22 lb/hour	59.6 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year		
6. Emission Factor: 0.0917 lb/gal Reference: Permit limit equivalent		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): SO₂ = 0.0917 lb/gal x 240 gal/hr = 22 lbs/hr SO₂ = 0.0917 lb/gal x 1,300,000 gal/yr x ton/2000 lbs = 59.6 tpy		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Annual SO₂ emissions limited by annual quantity of fuel use to avoid PSD review.		

Emissions Unit Information Section 2 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: ESCPSD		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 22 LB/HR		
4. Equivalent Allowable Emissions:	22 lb/hour	59.6 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 6C		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		
Annual SO2 emissions limited by annual quantity of fuel use to avoid PSD review.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: PM/PM10	
2. Total Percent Efficiency of Control:	99 %
3. Potential Emissions:	14.1 lb/hour 61.8 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: 14.1 lb/hour Reference: PERMIT	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): PM/PM10 = 14.1 LB/HR X 8760 HRS/YR X TON/2000 LBS = 61.8 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	

Emissions Unit Information Section 2 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 14.1 lb/hour		
4. Equivalent Allowable Emissions:	14.1 lb/hour	61.8 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 5		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): BACT		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: NOx		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	12.6 lb/hour	34.1 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year		
6. Emission Factor: 0.0525 lb/gal Reference: Permit limit equivalent		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): NOx = 0.0525 lb/gal x 240 gal/hr = 12.6 lb/hr NOx = 0.0525 lb/gal x 1,300,000 gal/yr x ton/2000 lbs = 34.1 TPY		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Annual NOx emissions limited by annual quantity of fuel use to avoid PSD review.		

Emissions Unit Information Section 2 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: ESCPSD		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 12.6 lb/hour		
4. Equivalent Allowable Emissions:	12.6 lb/hour	34.1 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 7E		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		
Annual NOx emissions limited by annual quantity of fuel use to avoid PSD review.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: FL	
2. Total Percent Efficiency of Control:	95 %
3. Potential Emissions:	4.2 lb/hour 18.4 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: 4.2 lb/hour Reference: Permit limit prorated.	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): FL = 4.2 LB/HR X 8760 HRS/YR X TON/2000 LBS = 18.4 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	

Emissions Unit Information Section 2 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 4.2 lb/hour		
4. Equivalent Allowable Emissions:	4.2 lb/hour	18.4 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 13A OR 13B		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): 40 CFR 60.222. Combined total emission limit for the plant of 9.6 lb/hr is prorated.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE
2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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): GENERAL VE

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:
2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> 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):

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> 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): 	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> 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): 	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)**

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

-] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

-] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	<input checked="" type="checkbox"/>] C	<input type="checkbox"/>] E	<input type="checkbox"/>] Unknown
SO2	<input checked="" type="checkbox"/>] C	<input type="checkbox"/>] E	<input type="checkbox"/>] Unknown
NO2	<input checked="" type="checkbox"/>] C	<input type="checkbox"/>] E	<input type="checkbox"/>] Unknown
4. Baseline Emissions:			
PM	lb/hour		tons/year
SO2	lb/hour		tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters):			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)**

Supplemental Requirements for All Applications

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: REPORT [] Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: REPORT [] Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

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.

2. Single Process, Group of Processes, or Fugitive Only? 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).

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.

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): DAP Plant #2 West Cooler		
2. Emissions Unit Identification Number: 047 [<input type="checkbox"/>] No Corresponding ID [<input type="checkbox"/>] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No	5. Emissions Unit Major Group SIC Code: 28
6. Emissions Unit Comment (limit to 500 characters): 		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters): Baghouse
2. Control Device or Method Code: 018

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Details

1. Initial Startup Date: NA		
2. Long-term Reserve Shutdown Date: NA		
3. Package Unit: NA		
Manufacturer:		Model Number:
4. Generator Nameplate Rating: NA		MW
5. Incinerator Information: NA		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

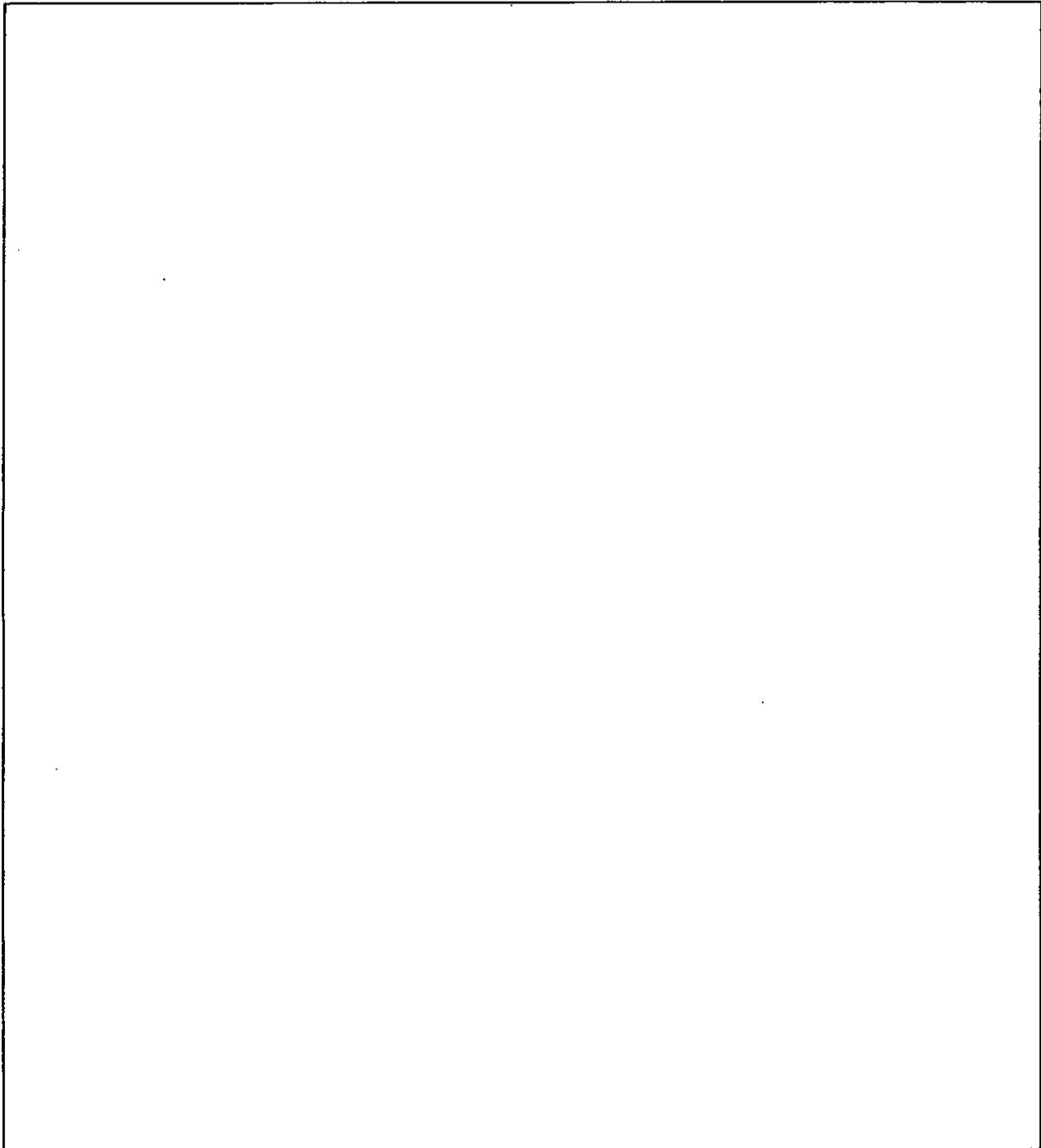
1. Maximum Heat Input Rate: NA		mmBtu/hr
2. Maximum Incineration Rate: NA	lb/hr	tons/day
3. Maximum Process or Throughput Rate: 170 tph		
4. Maximum Production Rate: NA		
5. Operating Capacity Comment (limit to 200 characters):		
<p>The cooler may process DAP or MAP. The combined capacity of the two trains corresponds to 340 tph DAP.</p>		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)



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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: West Cooler	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions 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: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	147 feet
7. Exit Diameter:	4.3 feet
8. Exit Temperature:	175 °F

Emissions Unit Information Section 3 of 4

9. Actual Volumetric Flow Rate:	66,000 acfm
10. Percent 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): 2 baghouses in parallel control PM from the cooler.	

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): DAP PROCESSING	
2. Source Classification Code (SCC): 3-01-030-25	
3. SCC Units: Tons Fertilizer Processed	
4. Maximum Hourly Rate: 170	5. Maximum Annual Rate: 1,489,200
6. Estimated Annual Activity Factor: NA	
7. Maximum Percent Sulfur: NA	8. Maximum Percent Ash: NA
9. Million Btu per SCC Unit: NA	
10. Segment Comment (limit to 200 characters): The DAP 2 Plant may produce DAP as well as MAP. The combined capacity of the two trains corresponds to 340 tph and 2,978,400 tpy DAP.	

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: PM/PM10	
2. Total Percent Efficiency of Control:	98 %
3. Potential Emissions:	4.5 lb/hour 19.7 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: 4.5 lb/hour Reference: PERMIT	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): PM/PM10 = 4.5 LB/HR X 8760 HRS/YR X TON/2000 LBS = 19.7 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	

Emissions Unit Information Section 3 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 4.5 lb/hour
4. Equivalent Allowable Emissions: 4.5 lb/hour 19.7 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 5
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): BACT

B.

1. Basis for Allowable Emissions Code:
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:
4. Equivalent Allowable Emissions: lb/hr tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: FL	
2. Total Percent Efficiency of Control:	95 %
3. Potential Emissions:	0.6 lb/hour 2.6 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: 0.6 lb/hour Reference: Permit limit prorated.	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): FL = 0.6 LB/HR X 8760 HRS/YR X TON/2000 LBS = 2.6 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Fluoride emissions are expected to be part of the particulate matter emissions only. The fluoride emissions may need to be re-prorated based on future test data.	

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 0.6 lb/hour		
4. Equivalent Allowable Emissions:	0.6 lb/hour	2.6 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 13A OR 13B		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): 40 CFR 60.222. Combined total emission limit for the plant of 9.6 lb/hr is prorated.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)**

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE	
2. Basis for Allowable Opacity:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> 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): GENERAL VE	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:	
2. Basis for Allowable Opacity:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)**

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

- [X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

- [] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

- [] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

- [] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

- [] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

Emissions Unit Information Section 3 of 4

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
SO2	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
NO2	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
4. Baseline Emissions:			
PM	lb/hour	tons/year	
SO2	lb/hour	tons/year	
NO2		tons/year	
5. PSD Comment (limit to 200 characters):			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)**

Supplemental Requirements for All Applications

<p>1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested</p>
<p>2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>
<p>3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested</p>
<p>4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested</p>
<p>5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>
<p>9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID : REPORT [] Not Applicable
11. Alternative Modes of Operation (Emissions Trading) [] Attached, Document ID: _____ [X] Not Applicable
12. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: REPORT [] Not Applicable
13. Compliance Assurance Monitoring Plan [] Attached, Document ID: _____ [X] Not Applicable
14. Acid Rain 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: _____ <input checked="" type="checkbox"/> Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

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.

2. Single Process, Group of Processes, or Fugitive Only? 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).

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.

B. GENERAL EMISSIONS UNIT INFORMATION
 (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): DAP Plant #2 East Cooler		
2. Emissions Unit Identification Number: 056 [<input type="checkbox"/>] No Corresponding ID [<input type="checkbox"/>] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No	5. Emissions Unit Major Group SIC Code: 28
6. Emissions Unit Comment (limit to 500 characters): 		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters): Wet Scrubber
2. Control Device or Method Code: 013

Emissions Unit Information Section 4 of 4

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Details

1. Initial Startup Date: NA		
2. Long-term Reserve Shutdown Date: NA		
3. Package Unit: NA		
Manufacturer:	Model Number:	
4. Generator Nameplate Rating: NA	MW	
5. Incinerator Information: NA		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

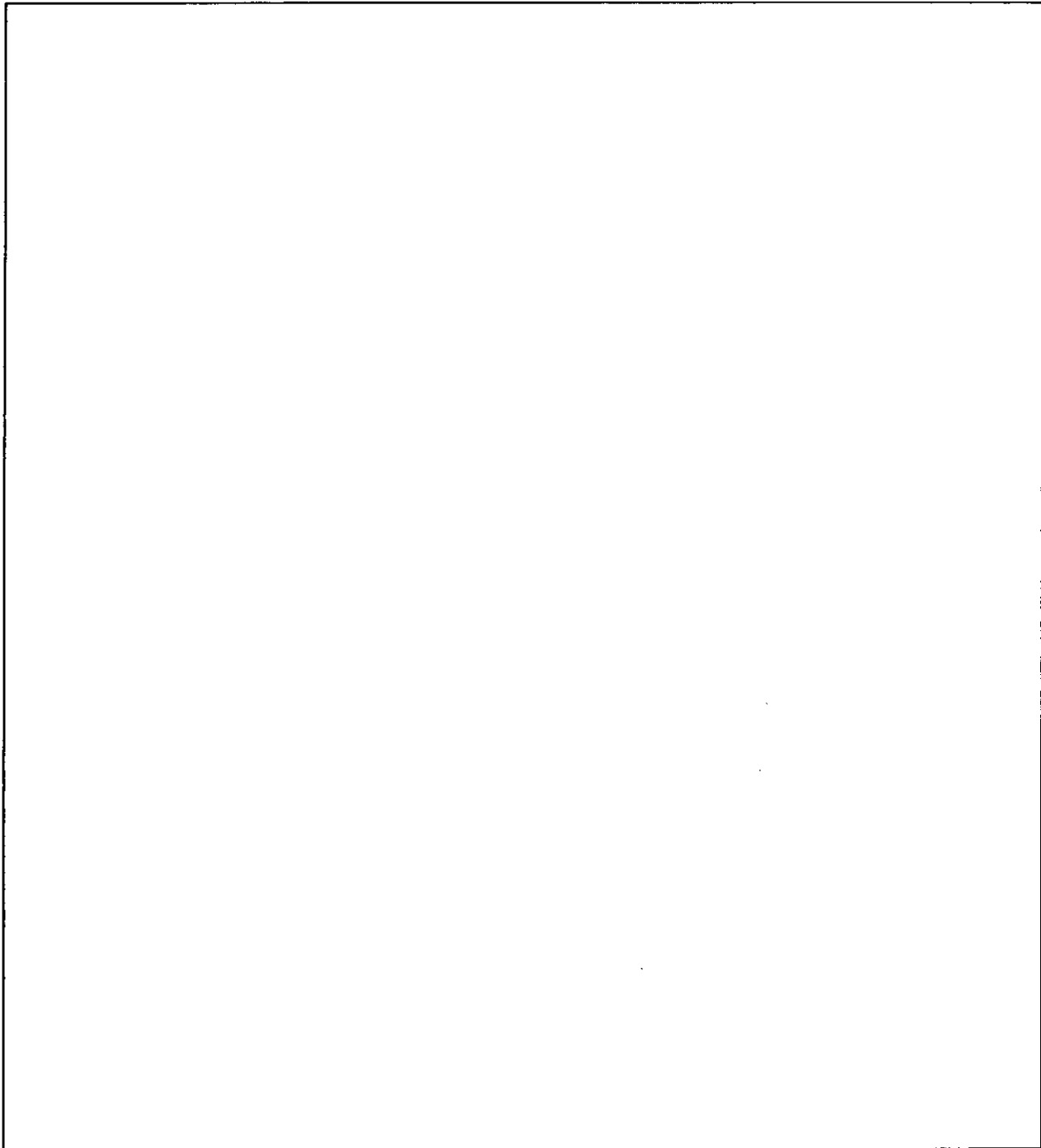
1. Maximum Heat Input Rate: NA	mmBtu/hr
2. Maximum Incineration Rate: NA	lb/hr tons/day
3. Maximum Process or Throughput Rate: 170 tph cooled	
4. Maximum Production Rate: NA	
5. Operating Capacity Comment (limit to 200 characters):	
The cooler may process DAP or MAP. The combined capacity of the two trains corresponds to 340 tph DAP.	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:		
	24 hours/day	6 days/week
	52 weeks/year	8760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)



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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: East Cooler	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions 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: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	170 feet
7. Exit Diameter:	5.0 feet
8. Exit Temperature:	110 °F

Emissions Unit Information Section 4 of 4

9. Actual Volumetric Flow Rate:	84000 acfm
10. Percent 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):	

**F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)**

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Ammonium Phosphates - Cooler	
2. Source Classification Code (SCC): 3-01-030-25	
3. SCC Units: Tons Processed	
4. Maximum Hourly Rate: 170	5. Maximum Annual Rate: 1,489,200
6. Estimated Annual Activity Factor: NA	
7. Maximum Percent Sulfur: NA	8. Maximum Percent Ash: NA
9. Million Btu per SCC Unit: NA	
10. Segment Comment (limit to 200 characters): The DAP 2 Plant may produce DAP as well as MAP. The combined capacity of the two trains corresponds to 340 tph and 2,978,400 tpy DAP.	

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	013	000	EL
FL	013	000	EL

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: FL	
2. Total Percent Efficiency of Control:	99 %
3. Potential Emissions:	0.6 lb/hour 2.6 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: 0.6 LB/HR Reference: Permit limit prorated.	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): FL = 0.6 LB/HR X 8760 HR/YR X TON/2000 LB = 2.6 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Fluoride emissions are expected to be part of the particulate matter emissions only. The fluoride emissions may need to be re-prorated based on future test data.	

Emissions Unit Information Section 4 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions: NA		
3. Requested Allowable Emissions and Units: 0.6 LB/HR		
4. Equivalent Allowable Emissions:	0.6 lb/hour	2.6 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 13A OR 13B		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): 40 CFR 60.222. Combined total emission limit for the plant of 9.6 lb/hr is prorated.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hr	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: PM/PM10	
2. Total Percent Efficiency of Control:	90 %
3. Potential Emissions:	6.2 lb/hour 27.2 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/year	
6. Emission Factor: 6.2 LB/HR Reference: PERMIT	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): PM/PM10 = 6.2 LB/HR X 8760 HR/YR X TON/2000 LB = 27.2 TPY	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	

Emissions Unit Information Section 4 of 4

Allowable Emissions (Pollutant identified on front of page)

A.

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 6.2 LB/HR
4. Equivalent Allowable Emissions: 6.2 lb/hour 27.2 tons/year
5. Method of Compliance (limit to 60 characters): EPA METHOD 5
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): BACT

B.

1. Basis for Allowable Emissions Code:
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:
4. Equivalent Allowable Emissions: lb/hr tons/year
5. Method of Compliance (limit to 60 characters):
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

**I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)**

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE			
2. Basis for Allowable Opacity:		<input checked="" type="checkbox"/> Rule	<input type="checkbox"/> 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): GENERAL VE			

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype:			
2. Basis for Allowable Opacity:		<input type="checkbox"/> Rule	<input type="checkbox"/> 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):			

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)**

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.

The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.

The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.

None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

Emissions Unit Information Section 4 of 4

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

-] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code:			
PM	<input type="checkbox"/>] C	<input type="checkbox"/>] E	<input type="checkbox"/>] Unknown
SO2	<input type="checkbox"/>] C	<input type="checkbox"/>] E	<input type="checkbox"/>] Unknown
NO2	<input type="checkbox"/>] C	<input type="checkbox"/>] E	<input type="checkbox"/>] Unknown
4. Baseline Emissions:			
PM	lb/hour	tons/year	
SO2	lb/hour	tons/year	
NO2		tons/year	
5. PSD Comment (limit to 200 characters):			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)**

Supplemental Requirements for All Applications

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: REPORT <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: REPORT <input type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Application (Hard-copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

REPORT IN SUPPORT OF A
PSD PERMIT APPLICATION

PREPARED FOR:

IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA

JULY 1997

PREPARED BY:

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1.0 SYNOPSIS OF APPLICATION

1.1 APPLICANT

IMC-Agrico Company, New Wales Plant
State Road 640
P.O. Box 2000
Mulberry, Florida 33860

1.2 FACILITY LOCATION

IMC-Agrico Company, New Wales Plant consists of a phosphate chemical fertilizer manufacturing facility approximately seven miles southwest of Mulberry, Florida, on State Road 640 in Polk County. The UTM coordinates of the IMC-Agrico facility are Zone 17, 396.7 km east and 3079.4 km north.

1.3 PROJECT DESCRIPTION

IMC-Agrico proposes to increase the allowable diammonium phosphate (DAP) production rate of the existing DAP 2 Plant from 280 to 340 tons per hour (tph) DAP. The plant may also produce monoammonium phosphate (MAP). The proposed project will include replacement of pumps, piping and ductwork, if necessary, to achieve the production rate increases. No major equipment changes are planned for the proposed project. A request for increase in the annual hours of operation, from 7920 to 8760, is included.

IMC-Agrico is submitting this report in support of the application to FDEP for increasing the production rates of ammoniated phosphates of the existing DAP 2 Plant. The report includes a description of the plant, a review of Best Available Control Technology, an ambient air quality analysis and an evaluation of the impact of the proposed modification on soils, vegetation and visibility.

2.0 FACILITY DESCRIPTION

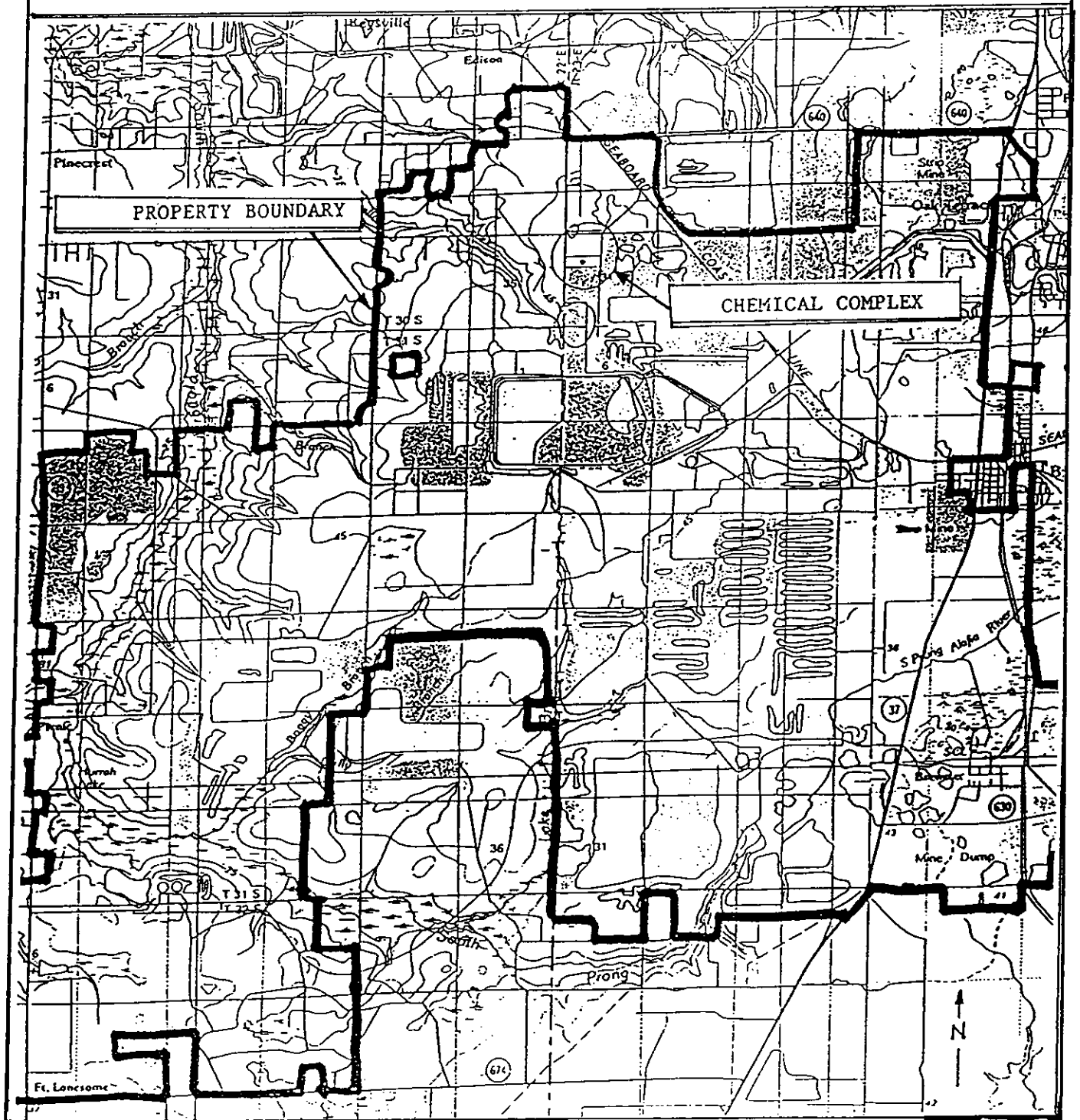
IMC-Agrico's New Wales Plant consists of an existing phosphate chemical fertilizer manufacturing facility located on State Road 640 in Polk County, Florida (See Figures 2-1 and 2-2).

The existing fertilizer complex processes wet phosphate rock into several different fertilizer products. This is accomplished by reacting the phosphate rock with sulfuric acid to produce phosphoric acid and then converting the phosphoric acid to fertilizer products and animal feed supplements. The chemical complex includes sulfuric acid plants, phosphoric acid plants, super phosphoric acid plant, plants to produce MAP, DAP, granular triple super phosphate (GTSP), animal feed supplements plants, uranium recovery plant, and storage, handling, grinding and shipping facilities for phosphate rock, ammonia, sulfur, fertilizer products and animal feed supplements. Figure 2-3, Plot Plan, shows the location of the existing plants.

FIGURE 2-2

SITE LOCATION MAP

IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA



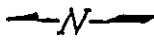
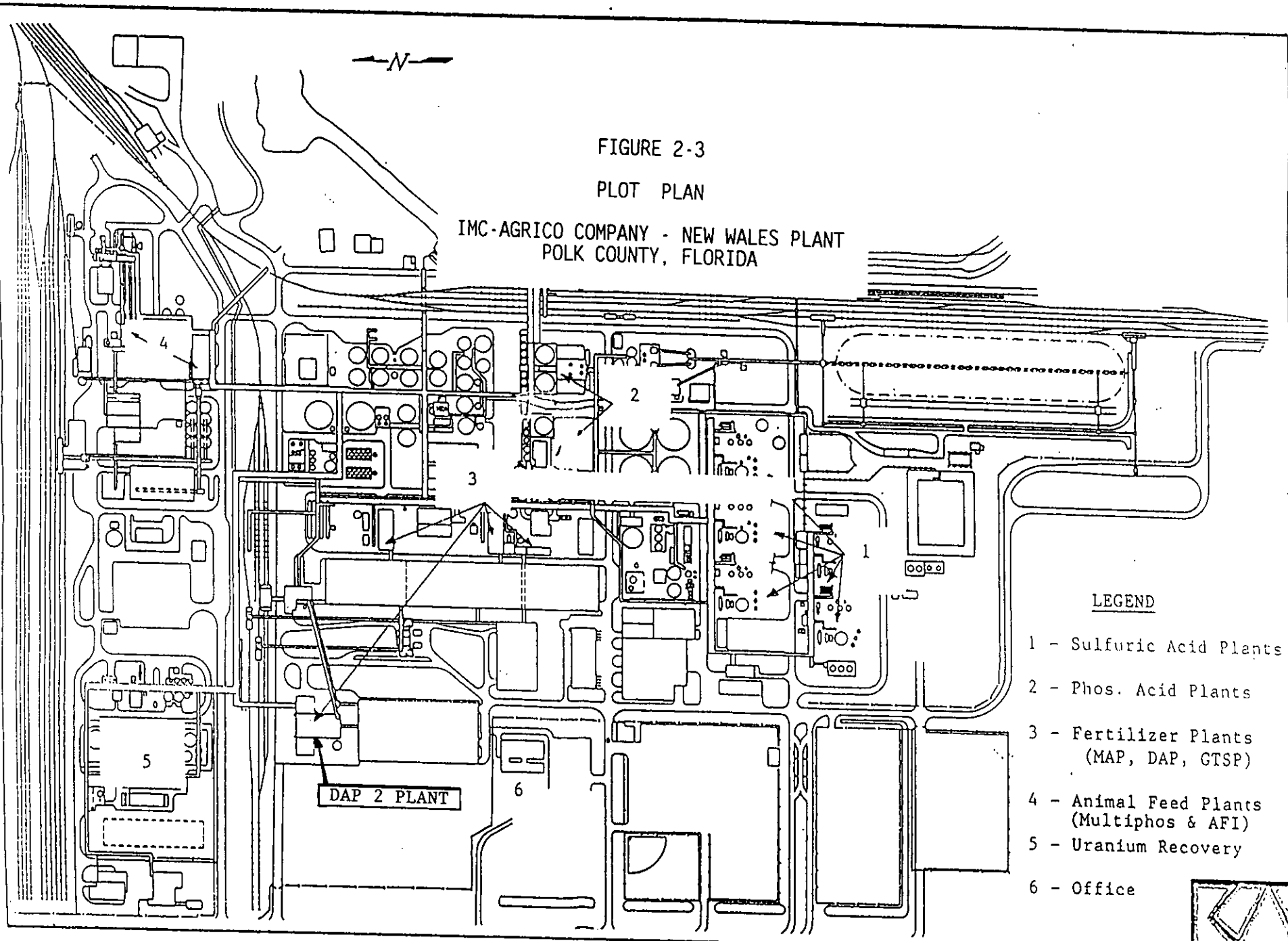


FIGURE 2-3

PLOT PLAN

IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA



LEGEND

- 1 - Sulfuric Acid Plants
- 2 - Phos. Acid Plants
- 3 - Fertilizer Plants
(MAP, DAP, GTSP)
- 4 - Animal Feed Plants
(Multiphos & AFI)
- 5 - Uranium Recovery
- 6 - Office



3.0 PROPOSED PROJECT

IMC-Agrico proposes to increase the allowable diammonium phosphate (DAP) production rate of the existing DAP 2 Plant (East and West trains combined) from 280 to 340 tons per hour (tph) DAP. The plant may also produce monoammonium phosphate (MAP). The phosphoric acid feed to the plant will correspondingly increase from 131 to 160 tph P_2O_5 (includes a 98 percent recovery factor). The proposed project includes replacement of pumps, piping and ductwork, as necessary, to achieve the production rate increase. No major equipment changes are anticipated for the proposed project. The annual hours of operation of the East and West trains will increase from 7920 to 8760. The annual hours of operation for the East and West Coolers will be 8760.

The East and West trains are capable of interchangeable material flow to the two coolers. Indeed the original permit was issued for a common cooler. Therefore, the DAP 2 Plant is one emissions unit, pursuant to the definition of the affected emissions unit in 40 CFR 60, Subpart V. It is requested that a single air permit be issued for this emissions unit.

Some of the excess phosphoric acid currently produced at New Wales, normally supplied to off site customers, will be diverted to the DAP 2 Plant for the proposed production increase. Consequently, the proposed project will not affect any other chemical plant at the facility.

The proposed increase in fertilizer production rate will result in an increase in the fertilizer storage and shipping rates. Current shipping operations air permits allow up to 10 percent variation in material handling rates, considered as normal fluctuation in operations. The proposed 6 percent change in the overall (total site) fertilizer handling rates will, therefore, be well within the current normal operating range. The fertilizer shipping rates will continue to be in compliance with the permitted levels. Therefore, changes to the fertilizer shipping operation permits are neither requested, nor warranted.

3.1 AIR EMISSIONS

The proposed increase in production rate of the DAP 2 Plant is expected to result in an increase in air emissions. The changes in air emissions associated with the proposed project are summarized in Table 3-1. The projected net emissions increases, presented in Table 3-2, are significant (as defined in Rule 62-212, FAC) for fluorides (F) and particulate matter (PM/PM10); and, less than significant for sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) and volatile organic compounds (VOCs).

3.2 RULE REVIEW

The following are the state and federal air regulatory requirements that apply to new or modified sources subject to a Prevention of Significant Deterioration (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 which are essentially identical to the federal regulations and are contained in Chapter 62-212 of the Florida Administration Code (FAC).

All new major facilities and major modifications to existing facilities 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 Clean Air Act. 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 are usually subject to more stringent air permitting requirements. Projects proposed in attainment areas are subject to air permit requirements which would ensure continued attainment status.

3.2.2 PSD Increments

In promulgating the CAA Amendments, Congress quantified concentration increases above an air quality baseline concentration levels for sulfur dioxide (SO₂) and particulate matter less than 10 microns (PM10) 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 industrial areas in which greater deterioration than Class II areas would be allowed. There are no designated Class III areas in Florida.

In 1988, EPA promulgated PSD regulations for nitrogen oxides (NO_x) and PSD increments for nitrogen dioxide (NO₂) concentrations. FDEP adopted the NO₂ increments in July 1990 (see Table 3-6 for PSD increments).

In the PSD regulations, 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 SO₂ and PM₁₀, and February 8, 1988, for NO₂, 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, 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 which 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 recently 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 application 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 that would occur as a result of the project. A visibility impairment analysis must be conducted for PSD Class I areas along with an air quality related values (AQRV) analysis. Impacts due to commercial, residential, industrial, and other growth associated with the source must be addressed.

3.2.7 Good Engineering Practice Stack Height

In accordance with Rule 62-210, 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 highest of:

1. 65 meters (m), or
2. A height established by applying the formula:
$$H_g = H + 1.5 L$$
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 DAP 2 Plant production increase is classified as a major modification to a major facility subject to both state and federal regulations as set forth in Chapter 62-212, FAC. The facility is located in an area classified as attainment for each of the regulated air pollutants. The proposed modification to the existing DAP plant will result in significant increases, as defined in Rule 62.212, FAC, in the emissions of F and PM, and will therefore be subject to PSD preconstruction review requirements. This 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.

TABLE 3-1

CHANGES IN EMISSION RATES
OF DAP 2 PLANT STACKSIMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA

	ALLOWABLE EMISSION RATES			
	CURRENT, at 280 TPH		PROPOSED, 340 TPH	
	lb/hr	tpy	lb/hr	tpy
Fluorides				
East Train	2.1	8.3	4.2	18.4
East Cooler	1.8	7.1	0.6	2.6
West Train	3.5	13.9	4.2	18.4
West Cooler	0.4	1.6	0.6	2.6
Particulates				
East Train	14.1	56.0	14.1	61.8
East Cooler	6.2	24.5	6.2	27.2
West Train	14.1	56.0	14.1	61.8
West Cooler	4.5	17.8	4.5	19.7
Sulfur Dioxide				
East Train	22.0	87.0	22.0	59.6
West Train	22.0	87.0	22.0	59.6
Nitrogen Oxides				
East Train	12.6	49.9	12.6	34.1
West Train	12.6	49.9	12.6	34.1

NOTES:

- (1) See Appendix for calculations of emission rates.
- (2) The proposed fluoride emission rates may be re-prorated based on test results.

TABLE 3-2
NET EMISSION CHANGES(1)
DAP 2 PLANT STACKS
IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA

POLLUTANT	EMISSION RATE (tpy)			PSD SIG.(2)	PSD?
	ACTUALS	PROPOSED	NET CHANGE		
Fluorides					
East Train	3.14	18.4	15.3		
East Cooler	0.72	2.6	1.9		
West Train	5.06	18.4	13.3		
West Cooler	0.23	2.6	<u>2.4</u>		
			32.9	3	YES
Particulates					
East Train	13.7	61.8	48.1		
East Cooler	4.9	27.2	22.3		
West Train	21.4	61.8	40.4		
West Cooler	4.2	19.7	<u>15.5</u>		
			126.3	15	YES
Sulfur Dioxide (3)					
East Train	26.4	59.6	33.2		
West Train	53.8	59.6	<u>5.8</u>		
			39.0	40	NO
Nitrogen Oxides (3)					
East Train	16.6	34.1	17.5		
West Train	12.3	34.1	<u>21.8</u>		
			39.3	40	NO
Carbon Monoxide					
East Train	1.0	5.5	4.5		
West Train	1.6	5.5	<u>3.9</u>		
			8.4	100	NO
Organics (VOCs)					
East Train	0.1	0.5	0.4		
West Train	0.1	0.5	<u>0.4</u>		
			0.8	40	NO

(1) See Appendix for emission calculations.

(2) Pursuant to Rule 62-212, FAC.

(3) SO₂ and NO_x emissions are limited by annual fuel usage.

TABLE 3-3

MAJOR FACILITY CATEGORIES

IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA

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

IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA

Pollutant	Significant Emission Rate tons/yr	De Minimis Ambient Impacts ug/m3
CO	100	575 (8-hour)
NOx	40	14 (NO2, Annual)
SO2	40	13 (24-hour)
Ozone	40 (VOC)	-
PM (TSP)	25	10 (24-hour)
PM10	15	10 (24-hour)
TRS (including H2S)	10	0.2 (1-hour)
H2SO4 mist	7	-
Fluorides	3	0.25 (24-hour)
Vinyl Chloride	1	15 (24-hour)
	<u>pounds/yr</u>	
Lead	1200	0.1 (Quarterly avg)
Mercury	200	0.25 (24-hour)
Asbestos	14	-
Beryllium	0.8	0.001 (24-hour)

TABLE 3-5

AMBIENT AIR QUALITY STANDARDS

IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA

Pollutant	FDER (State)		USEPA (National)			
	ug/m3	PPM	Primary		Secondary	
			ug/m3	PPM	ug/m3	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	0.05	100	-	100	-
Lead, Quarterly	1.5	-	1.5	-	1.5	-

TABLE 3-6

PSD INCREMENTS

IMC-AGRICO COMPANY - NEW WALES PLANT
POLK COUNTY, FLORIDA

Pollutant	Allowable PSD Increments (State/National)		
	Class I ug/m3	Class II ug/m3	Class III ug/m3
TSP, Annual	5	19	37
24-hour	10	37	75
SO ₂ , Annual	2	20	40
24-hour	5	91	182
3-hour	25	512	700
NO ₂ , Annual	2.5	25	50

4.0 BEST AVAILABLE CONTROL TECHNOLOGY

Best Available Control Technology (BACT) is required to control air pollutants emitted from newly constructed major sources or from modification to the major emitting facilities if the modification results in significant increase in the emission rate of regulated pollutants (see Table 3-4 for significant emission levels). The emission rate increases proposed by IMC have been summarized in Table 3-1. A BACT analysis is therefore required for F and PM/PM10.

4.1 EMISSION STANDARDS FOR DAP PLANTS

Federal New Source Performance Standards (NSPS) have been promulgated for DAP plants. These standards became effective on October 22, 1974 and are codified in 40 CFR 60, Subpart V and require fluoride emissions to be limited to no more than 0.060 pound per ton of P_2O_5 . Although no separate NSPS exist for MAP plants, the fluoride emission standard that applies to the DAP plants has generally been extended to MAP plants. The NSPS under Subpart V do not include emission standards for other criteria pollutants.

EPA revised/amended the New Source Performance Standards for DAP plants in 1989. At that time, no changes to the emission standard was deemed necessary or justified. There has been no change in EPA philosophy related to DAP plants since the 1989 review. This is apparent in EPA's proposed Maximum Achievable Control Technology (MACT) standard for hydrogen fluoride (HF), recently proposed under 40 CFR 63. The proposed MACT standard, which regulates HF as F, imposes the existing F NSPS, of 0.06 lbF/ton P205 feed, on existing plants; and, 0.058 lbF/ton P205 feed, on new plants. IMC-Agrico proposes a fluoride emission limit of 0.06 lb/ton P205 as BACT (identical to the proposed MACT for existing DAP plants).

4.2 CONTROL TECHNOLOGY

At all the MAP/DAP plants wet scrubbing equipment is conventionally applied for removal of ammonia, fluorides and particulate dusts from effluent gas streams. These scrubbers are designed for a variety of functions which include ammonia recovery, particulate collection, and fluorine removal. These functions require a complex arrangement of the scrubbing equipment often tailored for the requirements of a specific facility. No add-on controls are utilized for products of combustion.

The emission sources in a MAP/DAP plant are generally treated by wet scrubbers. Wet scrubbers are chosen over other types of pollution control devices because of the flexibility they offer in controlling emissions of ammonia, fluorides, and particulates in gas streams high in moisture content. All the gas streams in the MAP/DAP plant originate in wet reactors, dryers, or other pieces of process equipment laden with a significant amount of moisture. The high concentration of water in the gas streams poses problems in the use of fabric collectors and, to a lesser extent, in the use of mechanical or electrostatic collectors.

Typically the scrubbing mediums are weak acid (from within the process)

and pond water (for tail gas scrubbing). The availability of pond water as a scrubbing medium and the gypsum pond as a settling basin for collected solids are ideal features for wet scrubbers.

Although the FDEP's control technology review focus is on fluorides, the fertilizer manufacturing process collectively optimizes the collection of particulate matter, ammonia recovery and fluorides. The combination of requirements for particulate collection, gas absorption for NH_3 recovery, and fluoride emission control dictated IMC-Agrico's choice of air pollution control equipment at the time of construction of the existing plant. The historic compliance test results reflect the effectiveness of the existing control equipment (listed in current permits attached).

The use of once-through fresh water, in place of pond water, would enhance the fluorides controlled by the tail gas scrubber. However, the use of fresh water raises several environmental and chemical process related issues which need to be addressed. The IMC-Agrico operation is located in a sensitive water management area. A strict water conservation program is in place under the direction of the local Water Management District. The use of once-through fresh water would result in a significant increase in the amount of fresh water consumed by the facility. This would contradict the facility's commitment to the Water Management District.

The increased fresh water usage will alter the water balance for the complex such that the cooling pond surge capacity would be exceeded within a short period. As an alternative, a separate fresh water recirculation system could be constructed with a dedicated pond and distribution system at considerable expense. This system would still require makeup fresh water, raising the same issues discussed above. In consideration of the above adverse impacts, the use of fresh water over pond water for a marginal increase in fluoride removal does not seem justified.

A closed loop water treatment system can be implemented to reduce the F concentration of the recirculating water. However, this approach would impose a large equipment and materials cost for minimal gain in F removal. Additionally, the water treatment process would cause a solid waste (precipitate) disposal problem. In consideration of these adverse impacts, the use of a recirculating scrubber water system for marginal increase in fluoride removal is not justified.

4.3 BACT CONCLUSION

Based upon the discussion presented in previous sections, the current scrubber arrangements on East Train, West Train and East Cooler; and, the two baghouses in parallel on West Cooler, represent BACT for F and PM. It should be noted that the current emission limitations for F and PM are based on FDEP's previous BACT determination for this plant; and, the allowable hourly emission rates of PM are not requested to be changed.

5.0 AIR QUALITY REVIEW

The air quality review required of a PSD construction permit application potentially requires both air quality modeling and air quality monitoring. The air quality monitoring is required when the impact of air pollutant emission increases and decreases associated with a proposed project exceed the de minimis impact levels defined by Rule 62-212, FAC or in cases where an applicant wishes to define existing ambient air quality by monitoring rather than by air quality modeling.

The air quality modeling is required to provide assurance that the emissions from the proposed project, together with the emissions of all other air pollutants in the project area, will not cause or contribute to a violation of any ambient air quality standard.

The air quality review for the proposed project evaluated the ambient air impacts resulting from the proposed increase in stack gas velocity and annual hours of operation associated with the DAP 2 Plant. Table 5-1 contains modeling input parameters used in the ambient air quality impacts analysis. Modeling analysis for fluorides was not required by FDEP as there are no corresponding ambient air standards for comparison; and, the changes in hourly emissions are relatively minor.

The air dispersion modeling was conducted using the EPA approved ISC-ST model, Version 96113 (ISC3). The PM emissions modeled to determine the ambient air impacts reflect the allowable emissions associated with the proposed project (see Table 5-1). The modeling utilized a polar receptor grid for the Class II area which included 11 receptor rings from 700 meters to 10 kilometers downwind of the plant, with receptors located at 10 degree intervals from 10 to 360 degrees. The Class I area receptor locations previously identified by the Department were included in the modeling. Five years of Tampa meteorological data were used in the modeling for the period 1987 to 1991.

The modeling results, presented in Table 5-2, indicate that the proposed project will result in less than significant impacts. Furthermore, the predicted ambient air impacts reflect an overall improvement in the long term ambient air quality in the vicinity of the plant, as a result of the proposed project. Consequently, additional refined modeling is not required.

TABLE 5-1
 AIR QUALITY MODELING PARAMETERS
 IMC-AGRICO COMPANY - NEW WALES PLANT
 POLK COUNTY, FLORIDA

Stack	Pollutant	Emissions (g/s)	Ht (m)	Dia (m)	Vel (mps)	Temp (°K)	
East Train (1)	F	0.26	52.1	1.83	18.0	316	
	(2)	F	0.53	52.1	1.83	19.8	316
		PM	1.78				
West Train (1)	F	0.44	52.1	1.83	18.0	316	
	(2)	F	0.53	52.1	1.83	19.8	316
		PM	1.78				
East Cooler(1)	F	0.23	51.8	1.52	19.8	316	
	(2)	F	0.06	51.8	21.7	316	
		PM	0.78				
West Cooler(1)	F	0.05	44.8	1.31	21.0	352	
	(2)	F	0.06	44.8	23.1	352	
		PM	0.57				

NOTES:

- (1) Existing parameters.
- (2) Proposed parameters. An emission rate scaling factor of 7920/8760 was used for annual periods only, to account for proposed increase in annual hours of operation.
 EXAMPLE: PM (E. Trn) existing = $7920/8760 \times 1.78 \text{ g/s} = 1.61 \text{ g/s}$
 PM (E. Trn) proposed = $8760/8760 \times 1.78 \text{ g/s} = 1.78 \text{ g/s}$
- (3) Information on fluorides, although not modeled, is presented above for reference purposes only.
- (4) Allowable emissions of PM remain unchanged.

TABLE 5-2
 SUMMARY OF SIGNIFICANT IMPACT ANALYSES
 FOR PM/PM10

IMC-AGRICO COMPANY - NEW WALES PLANT
 POLK COUNTY, FLORIDA

MET YEAR	MAX. PREDICTED AMBIENT AIR IMPACTS (ug/m3) (1)	
	PM10	
	24-hr	Annual
<u>CLASS I AREA IMPACTS</u>		
1987	0	0
1988	0	0
1989	0	0
1990	0	0
1991	0.01	0
EPA SIG. (2)	0.3	0.2
NPS SIG. (3)	0.27	0.08
<u>CLASS II AREA IMPACTS</u>		
1987	0	0
1988	0	0
1989	0	0
1990	0	0
1991	0	0
EPA SIG. (2)	5	1

NOTES:

- (1) The above impacts represent the highest-high impacts resulting from the proposed project. Zeros represent negative impacts also.
- (2) Significant impact levels proposed by EPA.
- (3) Significant impact levels suggested by National Park Service.

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 DAP 2 Plant stacks are less than 213 feet in height above-grade. This satisfies the good engineering practice (GEP) stack height criteria.

It should be noted that building effects were considered in the modeling using the worst-case nearby building dimensions.

7.0 IMPACTS ON SOILS, VEGETATION AND VISIBILITY

7.1 IMPACT ON SOILS AND VEGETATION

The U. S. Environmental Protection Agency was directed by Congress to develop primary and secondary ambient air quality standards. The primary standards were to protect human health and the secondary standards were to:

"... protect the public welfare from any known or anticipated adverse effects of a pollutant."

The public welfare was to include soils, vegetation and visibility.

As a basis for promulgating the air quality standards, EPA undertook studies related to the effects of all major air pollutants and published criteria documents summarizing the results of the studies. The studies included in the criteria documents were related to both acute and chronic effects of air pollutants. Based on the results of these studies, the criteria documents recommended air pollutant concentration limits for various periods of time that would protect against both chronic and acute effects of air pollutants with a reasonable margin of safety.

The results of the air quality modeling indicate an improvement in the predicted ambient air quality impacts as a result of the proposed project. The maximum predicted impacts of PM10 are predicted to be lower as a result of the expected increase in stack gas velocity. As a result, it is reasonable to conclude that there will be no adverse effects on the soils, vegetation or visibility of the area.

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

7.2 GROWTH RELATED IMPACTS

The proposed modification will require no increase in personnel to operate the DAP 2 Plant. Also, the increase in fertilizer production may cause a slight increase in truck traffic but will have a negligible impact on traffic in the area as compared with traffic levels that presently exist. Therefore, no additional growth impacts are expected as a result of the proposed project.

7.3 VISIBILITY IMPACTS

Based on the results of the air dispersion modeling, the proposed project is not expected to have any impacts on visibility.

7.4 AIR QUALITY RELATED VALUES ANALYSIS FOR CLASS I AREA

As the results of the dispersion modeling indicate an overall improvement in the ambient air impacts from the proposed project, no adverse impacts are expected on the air quality related values in the nearest Class I area, Chassahowitzka National Wildlife Refuge.

8.0 CONCLUSION

It can be concluded from the information in this report that the proposed increase in the production rate of the DAP 2 Plant, 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 I - CALCULATIONS

CURRENT ALLOWABLE EMISSION RATES

DAP 2 EAST TRAIN:

F	=	2.1 lb/hr; 8.3 tpy
PM/PM10	=	14.1 lb/hr; 56.0 tpy
SO2	=	22.0 lb/hr; 87.0 tpy
NOx	=	12.6 lb/hr; 49.9 tpy

DAP 2 WEST TRAIN:

F	=	3.5 lb/hr; 13.9 tpy
PM/PM10	=	14.1 lb/hr; 56.0 tpy
SO2	=	22.0 lb/hr; 87.0 tpy
NOx	=	12.6 lb/hr; 49.9 tpy

DAP 2 EAST COOLER:

F	=	1.8 lb/hr; 7.1 tpy
PM/PM10	=	6.2 lb/hr; 24.5 tpy

DAP 2 WEST COOLER:

F	=	0.4 lb/hr; 1.6 tpy
PM/PM10	=	4.5 lb/hr; 17.8 tpy

CURRENT ACTUAL EMISSION RATES: Based on 1994, 1995 and 1996 plant operations.

Year	Hours Operated	Compliance Test Emission Rate (lb/hr)			
		F	PM	SO2	NOx
<u>EAST TRAIN</u>					
1994	7420	1.2	5.7	13.67	3.65
1995	7758	0.37	3.28	0.24	5.10
1996	7553	0.91	1.86	NR	NR
AVG	7577	0.83	3.61	6.96	4.38
<u>WEST TRAIN</u>					
1994	7401	1.5	10.4	8.75	2.71
1995	8017	1.22	4.05	18.9	3.60
1996	7919	1.18	2.05	NR	NR
AVG	7779	1.30	5.50	13.83	3.16
<u>EAST COOLER</u>					
1994	7420	0.14	1.02	NA	NA
1995	7758	0.14	1.56	NA	NA
1996	7553	0.28	1.30	NA	NA
AVG	7577	0.19	1.29		
<u>WEST COOLER</u>					
1994	7401	0.03	1.07	NA	NA
1995	8017	0.08	NR	NA	NA
1996	7919	NR	NR	NA	NA
AVG	7779	0.06	1.07		

NOTE: NR - not required; NA - not applicable.

SUMMARY OF FUEL USE:

Year	Natural Gas (MMCF, or MF)	No. 6 Oil (1000 gal, or TG)
<u>EAST TRAIN</u>		
1994	2.1	351.8
1995	35.3	125.9
1996	58.2	65.6
AVG	31.9	181.1
<u>WEST TRAIN</u>		
1994	1.97	361.4
1995	88.6	138.4
1996	97.6	144.0
AVG	62.7	214.6

DAP 2 EAST TRAIN:

F	=	0.83 lb/hr x 7577 hrs/yr x ton/2000 lbs
	=	3.14 tpy
PM/PM10	=	3.61 lb/hr x 7577 hrs/yr x ton/2000 lbs
	=	13.17 tpy
S02	=	6.96 lb/hr x 7577 hrs/yr x ton/2000 lbs
	=	26.4 tpy
NOx	=	4.38 lb/hr x 7577 hrs/yr x ton/2000 lbs
	=	16.6 tpy

Estimates of CO and VOC emissions based on AP-42 factors for boilers (conservative estimate), Tables 1.3-2 and 1.3-4:

CO	=	((5 lb/TG x 181.1 TG)+(35 lb/MF x 31.9 MF))/2000 lbs
	=	1.01 tpy
VOCs	=	((0.28 lb/TG x 181.1 TG)+(2.78 lb/MF x 31.9 MF))/2000 lbs
	=	0.07 tpy

DAP 2 WEST TRAIN:

F	=	1.3 lb/hr x 7779 hrs/yr x ton/2000 lbs
	=	5.06 tpy
PM/PM10	=	5.5 lb/hr x 7779 hrs/yr x ton/2000 lbs
	=	21.4 tpy
S02	=	13.83 lb/hr x 7779 hrs/yr x ton/2000 lbs
	=	53.8 tpy
NOx	=	3.16 lb/hr x 7779 hrs/yr x ton/2000 lbs
	=	12.3 tpy

Estimates of CO and VOC emissions based on AP-42 factors for boilers (conservative estimate), Tables 1.3-2 and 1.3-4:

CO	=	((5 lb/TG x 214.6 TG)+(35 lb/MF x 62.7 MF))/2000 lbs
	=	1.63 tpy
VOCs	=	((0.28 lb/TG x 214.6 TG)+(2.78 lb/MF x 62.7 MF))/2000 lbs
	=	0.1 tpy

DAP 2 EAST COOLER:

F	=	0.19 lb/hr x 7577 hrs/yr x ton/2000 lbs
	=	0.72 tpy

$$\begin{aligned} \text{PM/PM10} &= 1.29 \text{ lb/hr} \times 7577 \text{ hrs/yr} \times \text{ton}/2000 \text{ lbs} \\ &= 4.9 \text{ tpy} \end{aligned}$$

DAP 2 WEST COOLER:

$$\begin{aligned} \text{F} &= 0.06 \text{ lb/hr} \times 7779 \text{ hrs/yr} \times \text{ton}/2000 \text{ lbs} \\ &= 0.23 \text{ tpy} \end{aligned}$$

$$\begin{aligned} \text{PM/PM10} &= 1.07 \text{ lb/hr} \times 7779 \text{ hrs/yr} \times \text{ton}/2000 \text{ lbs} \\ &= 4.2 \text{ tpy} \end{aligned}$$

PROPOSED ALLOWABLE EMISSION RATES: Based on 8760 hours of operation.

PROCESS RATE, TOTAL:

$$\begin{aligned} \text{P205 IN} &= 340 \text{ tph DAP} \times 0.46 \times 1/0.98 \text{ conversion} \\ &= 160 \text{ tph P205} \end{aligned}$$

$$\begin{aligned} \text{Total F} &= 160 \text{ tph P205} \times 0.06 \text{ lb F/ton P205} \\ &= 9.6 \text{ lb/hr} \\ &\times 8760 \text{ hrs/yr} \times \text{ton}/2000 \text{ lbs} \\ &= 42.0 \text{ tpy} \end{aligned}$$

DAP 2 EAST & WEST TRAINS, EACH:

$$\begin{aligned} \text{F} &= 4.2 \text{ lb/hr} \times 8760 \text{ hrs/yr} \times \text{ton}/2000 \text{ lbs} \\ &= 18.4 \text{ tpy} \end{aligned}$$

Similarly:

$$\text{PM/PM10} = 14.1 \text{ lb/hr (unchanged); } 61.8 \text{ tpy}$$

IMC-Agrico will limit the fuel oil use in order to avoid PSD review for sulfur dioxide and nitrogen oxides. As the worst case fuel is No. 6 fuel oil, the following approach can be used for the combined No. 6 fuel oil use of the East and West trains based on the previous BACT determinations, in absence of accurate AP-42 emission factors:

$$\begin{aligned} \text{Current SO}_2 \text{ limit} &= 22 \text{ lbs/hr} \times 2 \text{ trains} \\ &= 44 \text{ lbs/hr} \end{aligned}$$

$$\begin{aligned} \text{Current NO}_x \text{ limit} &= 12.6 \text{ lbs/hr} \times 2 \text{ trains} \\ &= 25.2 \text{ lbs/hr} \end{aligned}$$

$$\begin{aligned} \text{Current No. 6 oil} &= 36 \text{ MMBtu/hr} \times 2 \text{ trains} \times \text{gal}/150,000 \text{ Btu} \\ &= 480 \text{ gals/hr} \end{aligned}$$

$$\begin{aligned} \text{Current Natural Gas} &= 36 \text{ MMBtu/hr} \times 2 \text{ trains} \times \text{MMCF}/1000 \text{ MMBtu} \\ &= 0.072 \text{ MMCF/hr} \end{aligned}$$

Current emission factor is estimated as follows:

$$\begin{aligned} \text{SO}_2 \text{ Emission Factor} &= 44 \text{ lbs/hr} \times \text{hr}/480 \text{ gals} \\ &= 0.0917 \text{ lb SO}_2/\text{gal No. 6 oil} \end{aligned}$$

$$\begin{aligned} \text{NO}_x \text{ Emission Factor} &= 25.2 \text{ lbs/hr} \times \text{hr}/480 \text{ gals} \\ &= 0.0525 \text{ lb NO}_x/\text{gal No. 6 oil} \end{aligned}$$

The allowable No. 6 fuel oil usage to avoid PSD review for SO₂ and NO_x emissions, can be determined as follows:

$$\begin{aligned} \text{Actual SO}_2 \text{ emissions} &= 26.4 \text{ tpy} + 53.8 \text{ tpy} \\ &= 80.2 \text{ tpy} \end{aligned}$$

$$\begin{aligned} \text{Allowable SO}_2 \text{ emissions} &= 80.2 \text{ tpy} + 40 \text{ tpy (PSD sig. level)} \\ &= 120.2 \text{ tpy} \end{aligned}$$

$$\begin{aligned} \text{Gallons of No. 6 Oil} &= 120.2 \text{ tpy} \times 2000 \text{ lbs/ton} \times \text{gal}/0.0917 \text{ lb} \\ &= 2,621,592 \text{ gals/yr} \end{aligned}$$

Therefore, by limiting the No. 6 fuel oil use to 2.6 million gallons, or less (to accommodate natural gas usage), PSD review can be avoided for SO₂.

$$\begin{aligned} \text{Resulting SO}_2 \text{ emissions} &= 2,600,000 \text{ gals/yr} \times 0.0917 \text{ lb/gal} \times \text{ton}/2000 \text{ lbs} \\ &= 119.2 \text{ tpy (or 59.6 tpy each train)} \end{aligned}$$

Similarly for NO_x:

$$\begin{aligned} \text{Actual NO}_x \text{ emissions} &= 16.6 \text{ tpy} + 12.3 \text{ tpy} \\ &= 28.9 \text{ tpy} \end{aligned}$$

$$\begin{aligned} \text{Allowable NO}_x \text{ emissions} &= 28.9 \text{ tpy} + 40 \text{ tpy (PSD sig. level)} \\ &= 68.9 \text{ tpy} \end{aligned}$$

$$\begin{aligned} \text{Gallons of No. 6 Oil} &= 68.9 \text{ tpy} \times 2000 \text{ lbs/ton} \times \text{gal}/0.0525 \text{ lb} \\ &= 2,624,762 \text{ gals/yr} \end{aligned}$$

Therefore, by limiting the No. 6 fuel oil use to 2.6 million gallons, or less (to accommodate natural gas usage), PSD review can also be avoided for NO_x.

$$\begin{aligned} \text{Resulting NO}_x \text{ emissions} &= 2,600,000 \text{ gals/yr} \times 0.0525 \text{ lb/gal} \times \text{ton}/2000 \text{ lbs} \\ &= 68.3 \text{ tpy (or 34.1 tpy each train)} \end{aligned}$$

It should be noted that a similar evaluation for natural gas firing alone results in the capability to burn natural gas without any additional restrictions beyond those imposed by the current permit. When a combination of natural gas and No. 6 fuel oil is used in a given year, the following equation may be used to demonstrate compliance with the annual emissions limitations.

$$\text{SO}_2, \text{ tpy} = ((X \text{ gals/yr} \times 0.0917 \text{ lb/gal}) + (Y \text{ MMCF} \times 0.6 \text{ lb/MMCF})) / 2000 \text{ lbs}$$

$$\text{NO}_x, \text{ tpy} = ((X \text{ gals/yr} \times 0.0525 \text{ lb/gal}) + (Y \text{ MMCF} \times 140 \text{ lb/MMCF})) / 2000 \text{ lbs}$$

Accordingly, the emissions limitations for SO₂ and NO_x from DAP 2 Plant East and West Trains, each, can be summarized as follows:

SO₂ = 22.0 lb/hr (unchanged); 59.6 tpy, each train.

NO_x = 12.6 lb/hr (unchanged); 34.1 tpy, each train.

Estimates of CO and VOC emissions based on AP-42 factors for boilers (conservative estimate), Tables 1.3-2 and 1.3-4, for No. 6 fuel oil:

CO, oil = (0.48 TG x 5 lb/TG) x 8760 hrs/yr x ton/2000 lbs
= 10.5 tpy

VOCs, oil = (0.48 TG x 0.28 lb/TG) x 8760 hrs/yr x ton/2000 lbs
= 0.6 tpy

Estimates of CO and VOC emissions based on AP-42 factors for boilers (conservative estimate), Tables 1.4-2 and 1.4-3, for natural gas:

CO, gas = (0.072 MMCF x 35 lb/MMCF) x 8760 hrs/yr x ton/2000 lbs
= 11.0 tpy

VOCs, gas = (0.072 MMCF x 2.8 lb/MMCF) x 8760 hrs/yr x ton/2000 lbs
= 0.9 tpy

Worst case potential emissions are:

CO, gas = 11.0 tpy

VOCs, gas = 0.9 tpy

DAP 2 EAST COOLER:

F = 0.6 lb/hr; 2.6 tpy

PM/PM₁₀ = 6.2 lb/hr (unchanged); 27.2 tpy

DAP 2 WEST COOLER:

F = 0.6 lb/hr; 2.6 tpy

PM/PM₁₀ = 4.5 lb/hr (unchanged); 19.7 tpy

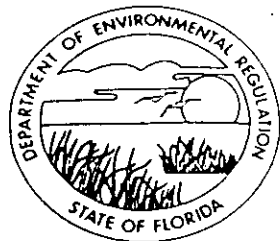
NET EMISSIONS INCREASES

Net emissions = Proposed + Contemporaneous - Actual

Based on site permitting history, to our knowledge there are no contemporaneous emissions.

F	=	(18.4 + 18.4 + 2.6 + 2.6) tpy
	-	(3.14 + 5.06 + 0.72 + 0.23) tpy
	=	32.9 tpy
PM/PM10	=	(61.8 + 61.8 + 27.2 + 19.7) tpy
	-	(13.7 + 21.4 + 4.9 + 4.2) tpy
	=	126.3 tpy
SO2	=	(59.6 + 59.6) tpy - (26.4 + 53.8) tpy
	=	39.0 tpy
NOx	=	(34.1 + 34.1) tpy - (16.6 + 12.3) tpy
	=	39.3 tpy
CO	=	(5.5 + 5.5) tpy - (1.0 + 1.6) tpy
	=	8.4 tpy
VOCs	=	(0.5 + 0.5) tpy - (0.1 + 0.1) tpy
	=	0.8 tpy

APPENDIX II - CURRENT AIR PERMITS



Florida Department of Environmental Regulation

Southwest District

3804 Coconut Palm

Tampa, Florida 33619

Lawton Chiles, Governor

813-744-6100

Carol M. Browner, Secretary

PERMITTEE:

IMC Fertilizer, Inc.
P.O. Box 1035
Mulberry, FL 33860

PERMIT/CERTIFICATION:

Permit No: AO53-215386
County: Polk
Expiration Date: 07/24/97
Project: DAP II Plant,
East Train

Originally Issued: 7/27/92

This amended permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of the DAP II Plant, East Train. Maximum production rate is 140 tons per hour of diammonium phosphate (DAP) (approximately 70 TPH P_2O_5 feed).

Particulate, fluoride and sulfur dioxide emissions from the DAP production equipment are controlled by two parallel control systems, each consisting of a venturi scrubber followed by a tailgas adsorption scrubber. Equipment and controls included on this permit are described below:

- Emissions from the reactor and the granulator discharge are pretreated by a prescrubber and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the recycle elevator discharge, the recycle conveyor and the dryer-to-screening elevator discharge are all pretreated by equipment cyclones (2) and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the dryer discharge are pretreated by dryer cyclones (4) and then controlled by the "Dryer" venturi scrubber followed by a tailgas scrubber.

The dryer is fired with natural gas at a maximum heat input rate of 36 MMBtu/hr, with No. 6 fuel oil (2.5% sulfur max.) as a backup fuel. Exhaust gas from both scrubber control systems are combined and vented to the atmosphere through a 171 foot high stack.

Location: New Wales Operations, Highway 640 and County Line Road

UTM: 17-396.7 E 3079.4 N **NEDS No:** 0059 **Point ID No:** 45

Replaces Permit No.: AO53-134734

PERMITTEE
IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION:
Permit No.: A053-215386

Specific Conditions:

1. A part of this permit is the attached 15 General Conditions.

Emission and Operating Limitations

2. The DAP II Plant is subject to and shall meet the requirements of the Federal New Source Performance Standards, 40 CFR 60, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants. (See also Specific Condition Nos. 5, 18, 19 and 20.)
[Rule 17-2.660, F.A.C. and 40 CFR 60.220].

3. The East Train of the DAP II Plant shall not operate more than 7,920 hours per year.
[Amendment to construction permit AC53-118671, dated June 29, 1987].

4. The maximum production rate of the East Train of the DAP II Plant shall not exceed 140 tons per hour of DAP.
[Amendment to construction permit AC53-118671, dated June 29, 1987].

5. The maximum allowable emissions from the East Train of the DAP II Plant shall not exceed the following:

Pollutant	Emission Limitations			Limit Basis
	BACT/NSPS	lbs/hour	tons/year	
Particulate	0.5 lbs/ton P205	14.1	56.0	a
Visible Emissions	20% opacity	-	-	b
Fluorides	0.06 lbs/ton P205	3.5	13.9	c
Sulfur Dioxide	0.7 lbs/ton P205	22.0	87.0	a
Nitrogen Oxides	0.6 lbs/MMBtu	12.6	55.2	d

Limit Basis Notes:

- a - BACT (Best Available Control Technology) determination of May 5, 1980 for construction permit AC53-23456.
- b - Rule 17-2.610(2), F.A.C.
- c - Rule 17-2.660, F.A.C. and 40 CFR 60.222(a). (NSPS)
- d - BACT determination of April 27, 1987 for construction permit AC53-118671.

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION:

Permit No.: A053-215386

Specific Conditions:

6. The pressure drop across each of the venturi scrubbers (the reactor granulator (R/G) scrubber, and the dryer scrubber) shall be at least 12 inches of water during all periods of operation of the DAP II East Train unless compliance with the emission limitations of Specific Condition No. 5 can be demonstrated by stack test at permitted operating conditions with a lower pressure drop.
[June 29, 1989 amendment to Construction Permit AC53-118671].

7. The DAP II East Train dryer shall be fired by natural gas, or No. 6 fuel oil with a maximum sulfur content not to exceed 2.5% sulfur by weight. The maximum fuel heat input rate shall not exceed 36 MMBtu/hr unless compliance with the emission limitations of Specific Condition No. 5 have been demonstrated by stack test under conditions of higher heat input. Reports of such stack tests shall be submitted to the Department along with a request for approval of an increased maximum heat input cap.
[BACT determination of May 5, 1980 and June 29, 1989 amendment to Construction Permit AC53-118671].

8. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. Fugitive emissions of particulate and fluorides from process and storage equipment shall be controlled by sealing openings and/or venting all fumes from the equipment to the appropriate control equipment.
[Rule 17-2.610(3), F.A.C. and Construction Permit No. AC53-118671].

9. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapter 17-2, or any other requirements under federal, state or local law.
[Rule 17-2.210, F.A.C.].

Testing Requirements

10. Test the DAP II East Train scrubbers stack for visible emissions once every 6 months from the baseline date of January 29 and submit a copy of the test data to the Air Section of the Southwest District Office within 45 days of such testing.
[Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION:

Permit No.: A053-215386

Specific Conditions:

11. Test the emissions from the DAP II East Train scrubbers stack for the following pollutants annually within one month of the baseline date of January 29. A copy of the test data shall be submitted to the Air Section of the Southwest District Office within 45 days of such testing:

- (X) Particulates
- (X) Fluorides
- (X) Sulfur dioxide (SO₂) (See Specific Condition No. 16)
- (X) Nitrogen oxides (NO_x)

[Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

12. The permittee shall notify the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted.

[Rule 17-2.700(2)(a)9., F.A.C.].

13. The permitted production rate and dryer heat input rate for the DAP II Plant East Train are 123 tons per hour and 16.2 MMBtu/hr respectively based on the rates during the January 27-31, 1992 test. Testing of emissions shall be conducted within 90-100% of the permitted rates while the dryer is firing No. 6 fuel oil, with a sulfur content representative of the maximum fired in the dryer. A compliance test submitted at a production or heat input rate less than 90% of the permitted rate will automatically constitute an amended permit at the lesser rate until another test showing compliance at a higher rate is submitted. Any time the permitted rate of the source is exceeded by more than 10% a compliance test shall be performed within 30 days of initiation of the higher rate and the test results shall be submitted to the Department within 45 days of testing. Acceptance of the test by the Department will constitute an amended permit at the higher rate (not to exceed the maximum permitted rate.) The emission limitations in Specific Condition No. 5 shall not change. A statement of the production rate, fuel type, and heat input rate shall be submitted with the test report. (See also Specific Condition No. 15 for additional information to be included with test report.) Failure to submit the rates and actual operating conditions in the test report may invalidate the test and fail to provide reasonable assurance of compliance. [Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION:

Permit No.: A053-215386

Specific Conditions:

14. Compliance with the emission limitations of Specific Condition No. 5 shall be determined using EPA Methods 1, 2, 4, 5, 6, 7, 9 and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C., or other methods approved by the Department. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60, Appendix A.
[Rules 17-2.700 & 17-2.660, F.A.C. and 40 CFR 60.224].

15. For each scrubber, the following scrubber operating parameters shall be monitored during any compliance test and a summary of this data shall be included in any emissions test report.

- (X) P₂O₅ Input
- (X) pH of scrubber solution
- (X) Gas Pressure Drop (inches H₂O)

[Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

16. The DAP II Plant East Train may be tested while firing natural gas in the dryer if No. 6 fuel oil has not been used since the last test and its use is not expected before the next required test. If natural gas is fired in the dryer then the sulfur dioxide testing requirement of Specific Condition No. 11 is waived. If this option is exercised, the test report shall include a statement certifying that the above fuel oil usage requirement has been met.

17. If testing is conducted while firing No. 6 fuel oil in the dryer, compliance with the sulfur content requirement of Specific Condition No. 7 shall be demonstrated during the test by submitting either of the following with the test report:

- (A) A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
- (B) A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.

[Rule 17-4.070(3), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION:

Permit No.: A053-215386

Specific Conditions:

Monitoring and Recordkeeping Requirements

18. The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material (P_2O_5) to each train of the DAP II Plant. The monitoring device shall have an accuracy of $\pm 5\%$ over its operating range.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(a)].

19. The permittee shall maintain a daily record of "equivalent P_2O_5 feed" according to the procedure specified in 40 CFR 60.223(b).

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(b)].

20. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measures and permanently records the total pressure drop across each one of the process scrubbing systems. The monitoring device shall have an accuracy of $\pm 5\%$ over its operating range. The pressure drop monitoring records shall be retained for at least a two year period.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(c)].

21. In order to document continuing compliance with the maximum sulfur content requirement of Specific Condition No. 7, the permittee shall maintain a record of the sulfur content of all No. 6 fuel oil received for use in the DAP II Plant dryers. These records may be based on vendor supplied information or analysis of samples taken by the permittee. These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a two year period.

[Rule 17-4.070(3), F.A.C.].

22. The permittee's ambient air station measuring TSP shall be operated on a 6 day schedule as established by DER and the data reported to the DER Southwest District Office in Tampa on a quarterly basis. [Construction Permit AC53-118671].

23. Submit to the Southwest District Office of the Department each calendar year on or before March 1, an emission report for this source for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of materials and/or fuels utilized;
- (B) Annual emissions (include calculation sheets and note basis for calculations);
- (C) Any changes in the information contained in the permit application.

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION:

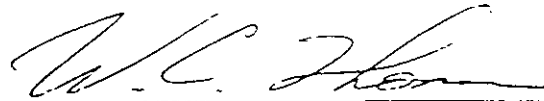
Permit No.: A053-215386

Specific Conditions:

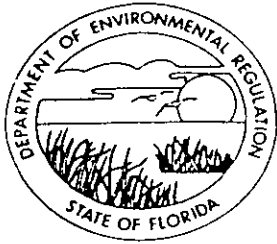
24. Two applications to renew this operating permit shall be submitted to the Southwest District Office of the Department no later than May 25, 1997 (60 days prior to the expiration date of this permit).

[Rule 17-4.090(1), F.A.C.].

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



For _____
Richard D. Garrity, Ph.D.
Director of District Management
Southwest District



Florida Department of Environmental Regulation

Southwest District

3804 Coconut Palm

Tampa, Florida 33619

Lawton Chiles, Governor

813-744-6100

Carol M. Browner, Secretary

PERMITTEE:

IMC Fertilizer, Inc.
P.O. Box 1035
Mulberry, FL 33860

PERMIT/CERTIFICATION:

Permit No: A053-215387
County: Polk
Expiration Date: 07/24/97
Project: DAP II Plant,
West Train

Originally Issued: 7/27/92

This amended permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of the DAP II Plant, West Train. Maximum production rate is 140 tons per hour of diammonium phosphate (DAP) (approximately 70 TPH P_2O_5 feed).

Particulate, fluoride and sulfur dioxide emissions from the DAP production equipment are controlled by two parallel control systems, each consisting of a venturi scrubber followed by a tailgas adsorption scrubber. Equipment and controls included on this permit are described below:

- Emissions from the reactor and the granulator discharge are pretreated by a prescrubber and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the recycle elevator discharge, the recycle conveyor and the dryer-to-screening elevator discharge are all pretreated by equipment cyclones (2) and then controlled by the "RG" venturi scrubber followed by a tailgas scrubber.
- Emissions from the dryer discharge are pretreated by dryer cyclones (4) and then controlled by the "Dryer" venturi scrubber followed by a tailgas scrubber.

The dryer is fired with natural gas at a maximum heat input rate of 36 MMBtu/hr, with No. 6 fuel oil (2.5% sulfur max.) as a backup fuel. Exhaust gas from both scrubber control systems are combined and vented to the atmosphere through a 171-foot high stack.

Location: New Wales Operations, Highway 640 and County Line Road

UTM: 17-396.7 E 3079.4 N **NEDS No:** 0059 **Point ID No:** 46

Replaces Permit No.: A053-139336

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION

Permit No.: AO53-215387

Specific Conditions:

1. A part of this permit is the attached 15 General Conditions.

Emission and Operating Limitations

2. The DAP II Plant is subject to and shall meet the requirements of the Federal New Source Performance Standards, 40 CFR 60, Subpart V, Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants. (See also Specific Condition Nos. 5, 18, 19 and 20.)
[Rule 17-2.660, F.A.C. and 40 CFR 60.220].

3. The West Train of the DAP II Plant shall not operate more than 7,920 hours per year.
[Amendment to construction permit AC53-118671, dated June 29, 1987].

4. The maximum production rate of the West Train of the DAP II Plant shall not exceed 140 tons per hour of DAP.
[Amendment to construction permit AC53-118671, dated June 29, 1987].

5. The maximum allowable emissions from the West Train of the DAP II Plant shall not exceed the following:

Pollutant	Emission Limitations			Limit Basis
	BACT/NSPS	lbs/hour	tons/year	
Particulate	0.5 lbs/ton P205	14.1	56.0	a
Visible Emissions	20% opacity	-	-	b
Fluorides	0.06 lbs/ton P205	3.5	13.9	c
Sulfur Dioxide	0.7 lbs/ton P205	22.0	87.0	a
Nitrogen Oxides	0.6 lbs/MMBtu	12.6	55.2	d

Limit Basis Notes:

- a - BACT (Best Available Control Technology) determination of May 5, 1980 for construction permit AC53-23546.
- b - Rule 17-2.610(2), F.A.C.
- c - Rule 17-2.660, F.A.C. and 40 CFR 60.222(a). (NSPS)
- d - BACT determination of April 27, 1987 for construction permit AC53-118671.

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION

Permit No.: A053-215387

Specific Conditions:

6. The pressure drop across each of the venturi scrubbers (the reactor granulator (R/G) scrubber, and the dryer scrubber) shall be at least 12 inches of water during all periods of operation of the DAP II West Train unless compliance with the emission limitations of Specific Condition No. 5 can be demonstrated by stack test at permitted operating conditions with a lower pressure drop.
[June 29, 1989 amendment to Construction Permit AC53-118671].

7. The DAP II West Train dryer shall be fired by natural gas, or No. 6 fuel oil with a maximum sulfur content not to exceed 2.5% sulfur by weight. The maximum fuel heat input rate shall not exceed 36 MMBtu/hr unless compliance with the emission limitations of Specific Condition No. 5 have been demonstrated by stack test under conditions of higher heat input. Reports of such stack tests shall be submitted to the Department along with a request for approval of an increased maximum heat input cap.
[BACT determination of May 5, 1980 and June 29, 1989 amendment to Construction Permit AC53-118671].

8. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. Fugitive emissions of particulate and fluorides from process and storage equipment shall be controlled by sealing openings and/or venting all fumes from the equipment to the appropriate control equipment.
[Rule 17-2.610(3), F.A.C. and Construction Permit No. AC53-118671].

9. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapter 17-2, or any other requirements under federal, state or local law.
[Rule 17-2.210, F.A.C.].

Testing Requirements

10. Test the DAP II West Train scrubbers stack for visible emissions once every 6 months from the baseline date of January 29 and submit a copy of the test data to the Air Section of the Southwest District Office within 45 days of such testing.
[Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION

Permit No.: A053-215387

Specific Conditions:

11. Test the emissions from the DAP II West Train scrubbers stack for the following pollutants annually within one month of the baseline date of January 29. A copy of the test data shall be submitted to the Air Section of the Southwest District Office within 45 days of such testing:

- (X) Particulates
- (X) Fluorides
- (X) Sulfur dioxide (SO₂) (See Specific Condition No. 16)
- (X) Nitrogen oxides (NOx)

[Rules 17-2.700(2) and 17-2.700(8), F.A.C.].

12. The permittee shall notify the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted.

[Rule 17-2.700(2)(a)9., F.A.C.].

13. The permitted production rate and dryer heat input rate for the DAP II Plant West Train are 123 tons per hour and 13.5 MMBtu/hr respectively based on the rates during the June 8-12, 1992 test. Testing of emissions shall be conducted within 90-100% of the permitted rates while the dryer is firing No. 6 fuel oil, with a sulfur content representative of the maximum fired in the dryer. A compliance test submitted at a production or heat input rate less than 90% of the permitted rate will automatically constitute an amended permit at the lesser rate until another test showing compliance at a higher rate is submitted. Any time the permitted rate of the source is exceeded by more than 10% a compliance test shall be performed within 30 days of initiation of the higher rate and the test results shall be submitted to the Department within 45 days of testing. Acceptance of the test by the Department will constitute an amended permit at the higher rate (not to exceed the maximum permitted rate.) The emission limitations in Specific Condition No. 5 shall not change. A statement of the production rate, fuel type, and heat input rate shall be submitted with the test report. (See also Specific Condition No. 15 for additional information to be included with test report.) Failure to submit the rates and actual operating conditions in the test report may invalidate the test and fail to provide reasonable assurance of compliance. [Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION

Permit No.: A053-215387

Specific Conditions:

14. Compliance with the emission limitations of Specific Condition No. 5 shall be determined using EPA Methods 1, 2, 4, 5, 6, 7, 9 and 13A or 13B contained in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C., or other methods approved by the Department. The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rule 17-2.700, F.A.C. and 40 CFR 60, Appendix A.
[Rules 17-2.700 & 17-2.660, F.A.C. and 40 CFR 60.224].

15. For each scrubber, the following scrubber operating parameters shall be monitored during any compliance test and a summary of this data shall be included in any emissions test report:

- (X) P₂O₅ Input
- (X) pH of scrubber solution
- (X) Gas Pressure Drop (inches H₂O)

[Rule 17-4.070(3), F.A.C. and June 29, 1989 amendment to Construction Permit AC53-118671].

16. The DAP II Plant West Train may be tested while firing natural gas in the dryer if No. 6 fuel oil has not been used since the last test and its use is not expected before the next required test. If natural gas is fired in the dryer then the sulfur dioxide testing requirement of Specific Condition No. 11 is waived. If this option is exercised, the test report shall include a statement certifying that the above fuel oil usage requirement has been met.

17. If testing is conducted while firing No. 6 fuel oil in the dryer, compliance with the sulfur content requirement of Specific Condition No. 7 shall be demonstrated during the test by submitting either of the following with the test report:

- (A) A Certificate of Fuel Oil Analysis from your fuel oil vendor for the fuel used during the compliance test; or
- (B) A Certificate of Fuel Oil Analysis for a fuel oil sample taken during the compliance test.

[Rule 17-4.070(3), F.A.C.].

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION

Permit No.: AO53-215387

Specific Conditions:

Monitoring and Recordkeeping Requirements

18. The permittee shall install, calibrate, maintain, and operate a monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material (P_2O_5) to each train of the DAP II Plant. The monitoring device shall have an accuracy of $\pm 5\%$ over its operating range.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(a)].

19. The permittee shall maintain a daily record of "equivalent P_2O_5 feed" according to the procedure specified in 40 CFR 60.223(b).

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(b)].

20. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measures and permanently records the total pressure drop across each one of the process scrubbing systems. The monitoring device shall have an accuracy of $\pm 5\%$ over its operating range. The pressure drop monitoring records shall be retained for at least a two year period.

[Rule 17-2.660, F.A.C. and 40 CFR 60.223(c)].

21. In order to document continuing compliance with the maximum sulfur content requirement of Specific Condition No. 7, the permittee shall maintain a record of the sulfur content of all No. 6 fuel oil received for use in the DAP II Plant dryers. These records may be based on vendor supplied information or analysis of samples taken by the permittee. These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a two year period.

[Rule 17-4.070(3), F.A.C.].

22. The permittee's ambient air station measuring TSP shall be operated on a 6 day schedule as established by DER and the data reported to the DER Southwest District Office in Tampa on a quarterly basis. [Construction Permit No. AC53-118671].

23. Submit to the Southwest District Office of the Department each calendar year on or before March 1, an emission report for this source for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of materials and/or fuels utilized;
- (B) Annual emissions (include calculation sheets and note basis for calculations);
- (C) Any changes in the information contained in the permit application.

PERMITTEE

IMC Fertilizer, Inc.
New Wales Operations

PERMIT/CERTIFICATION

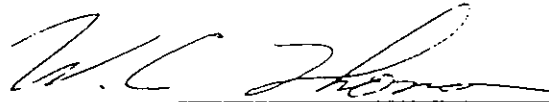
Permit No.: A053-215387

Specific Conditions:

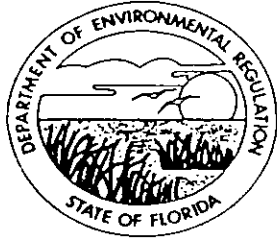
24. Two applications to renew this operating permit shall be submitted to the Southwest District Office of the Department no later than May 25, 1997 (60 days prior to the expiration date of this permit).

[Rule 17-4.090(1), F.A.C.].

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



For Richard D. Garrity, Ph.D.
Director of District Management
Southwest District



Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347

Lawton Chiles, Governor

813-623-5561

Carol M. Browner, Secretary

PERMITTEE:
IMC Fertilizer, Inc.
Post Office Box 1035
Mulberry, FL 33860

PERMIT/CERTIFICATION
Permit No.: A053-193163
County: Polk
Expiration Date: 07/20/96
Project: DAP Plant 2E Cooler

This permit is issued under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-2 & 17-4. The above permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of a DAP product cooler used to cool product from only the DAP Plant No. 2 East (2E). The cooler receives a maximum of 140 tons/hr. of product (64.4 P205 input to DAP Plant 2E) and is designed to cool the product to a maximum of 120 degrees F. Cooled product is discharged to the same product elevator used by DAP Plant 2 West. Emissions from the cooler are controlled by a Buell four cluster cyclone which vents to a Koch Engineering (316L SS) direct contact venturi scrubber at an average measured rate of 64,303 DSCFM. The scrubber is designed to use fresh water or pond water which may contain a small amount of ammonia vaporizer condensate. The scrubber's liquid effluent is discharge to the wet rock grinding facility or recirculated to the cooling pond.

Location: Highway 640 & County Line Road, Mulberry

UTM: 17-396.7E 3079.4N NEDS No.: 0059 Point ID: 56

Replaces Permit No.: AC53-177264

PERMITTEE:
IMC Fertilizer, Inc.

Permit No.: AO53-193163
Project: DAP Plant No. 2E
Cooler

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. This source shall comply with all applicable provisions of the new source performance standards listed in 40 CFR 60, Subpart V which were adopted by reference in Rule 17-2.660, F.A.C.
3. Visible emissions from this source shall not be equal to or exceed 20% opacity in accordance with Rule 17-2.610(2), F.A.C.
4. Particulate emissions from this source shall not exceed 0.011 gr/dscf, 6.2 lbs./hr., and 24.5 tons/yr. [Permit AC53-177264]
5. Fluoride emissions from this source shall not result in an exceedance of the 0.060 pound per ton of P2O5 standard which covers the entire DAP Plant No. 2E unit operating at its maximum permitted operating rate. For the typical P2O5 content of 46%, the maximum fluoride emission rate for the entire process is $140 \times 0.46 \times 0.060 = 3.86$ pounds per hour (15.2 tons per year). The permittee has established a fluoride allocation of 1.8 lbs./hr. (0.028 lbs./ton of P2O5) for the cooler and 2.1 lbs./hr. (0.032 lbs./ton of P2O5) for the DAP Plant No. 2E. [Permit AC53-177264]
6. Product rate through the DAP Plant No. 2E cooler shall not exceed 140 tons/hr. (maximum P2O5 input to DAP Plant No. 2E is 64.4 tons/hr.) and 1,103,760 tons/yr. [Permit AC53-177264]
7. The DAP Plant No. 2E cooler may operate up to 7884 hours per year. [Permit AC53-177264]
8. The minimum pressure drop across the scrubber shall be 14.4 inches of water or no lower than 10% of the measurement during the most recent compliance test. NOTE--The pressure drop during the March 28, 1991 compliance test was 16 inches of water. [Rule 17-4.070(3), F.A.C.]
9. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling.

PERMITTEE:
IMC Fertilizer, Inc.

Permit No.: A053-193163
Project: DAP Plant No. 2E
Cooler

10. This source shall continuously measure and permanently record the scrubber's recirculating water flow rate (gpm). [Permit AC53-177264]
11. This source shall continuously measure and permanently record the scrubber's total pressure drop (inches of water). [Rule 17-2.660, F.A.C. and 40 CFR 60.223(c)]
12. This source shall be tested for particulates, fluorides, and visible emissions at interval of 12 months from the date March 28, 1991. Submit a copy of the test data to this office within 45 days of such testing. [Rules 17-2.700(2) and 17-2.700(7), F.A.C.]
13. Compliance with the emission limitations of Specific Condition Nos. 3, 4, and 5 shall be demonstrated in accordance with EPA Methods 1, 2, 4, 5, 9, and 13A or 13B as published in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C.
14. Testing of emissions shall be conducted at the permitted DAP production capacity of 140 tons/hr. or no less than 90 percent thereof. P2O5 input (tons/hr.), gpm scrubber water (fresh water or pond water), DAP product throughput rate (tons/hr.) and scrubber pressure drop (inches of water) shall be reported along with the test data. A compliance test submitted at an operating rate less than 90% of the maximum permitted DAP throughput rate will automatically constitute an amended permit at the lesser rate until another test (showing compliance) at a higher rate is submitted. Failure to submit the required operating data or not operate at actual operating conditions may invalidate the test. [Rule 17-4.070(3), F.A.C. and Permit AC53-177264]
15. If a compliance test is conducted when only fresh water is used for scrubber water, a new compliance test shall be required when the scrubber has operated more than 10 days during a calendar year with pond water. [Permit AC53-177264]
16. If the recirculating water flow rate (gpm) to the scrubber varies by plus or minus 25% since the most recent compliance test, then the source shall be re-tested as stipulated in Specific Condition No. 12. [Permittee's letter dated April 3, 1991] NOTE--The compliance test dated March 28, 1991 recorded a recirculating water flow rate of 460 gpm.

PERMITTEE:
IMC Fertilizer, Inc.

Permit No.: A053-193163
Project: DAP Plant No. 2E
Cooler

17. The permittee shall notify the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. [Rule 17-2.700(2)(a)9., F.A.C.].

18. Submit for this source, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of materials and/or fuels utilized;
- (B) Annual emissions (note calculation basis);
- (C) Any changes in the information contained in the permit.

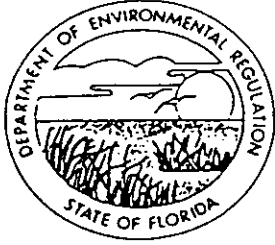
The report shall be submitted to the Southwest District Office of the Department.

19. Four applications to renew this operating permit shall be submitted to this office at least 60 days prior to the expiration date of the permit pursuant to Rule 17-4.090(1), F.A.C.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



Richard D. Garrity, Ph.D.
Director of District Management



Florida Department of Environmental Regulation

Southwest District

3804 Coconut Palm

Tampa, Florida 33619

Lawton Chiles, Governor

813-744-6100

Carol M. Browner, Secretary

PERMITTEE:

IMC Fertilizer, Inc.
Post Office Box 1035
Mulberry, FL 33860

PERMIT/CERTIFICATION:

Permit No.: A053-183082
County: Polk
Expiration Date: 11/01/95
Project: DAP II Plant, West
Product Cooler

Originally Issued: 10/31/90

This amended permit is issued under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-2 & 17-4. The above permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of a DAP product cooler used to cool product from only the DAP Plant No. II West. The cooler receives a maximum of 140 tons/hr. of product (64.4 P205 input to DAP Plant IIW) and is designed to cool the product to a maximum of 120 degrees F. Cooled product is discharged to the same product elevator used by DAP Plant II East. Emissions from the cooler are controlled by a baghouse with an average measured stack gas flow rate of 49,217 DSCFM.

Location: Highway 640 & County Line Road, Mulberry

UTM: 17-396.7E 3079.4N NEDS No.: 0059 Point ID: 47

Replaces Permit No.: A053-106293

PERMITTEE:
IMC Fertilizer, Inc.

Permit No.: A053-183082
Project: DAP II Plant, West
Product Cooler

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.

EMISSION AND OPERATING LIMITATIONS

2. This source shall comply with all applicable provisions of the new source performance standards listed in 40 CFR 60, Subpart V which were adopted by reference in Rule 17-2.660, F.A.C.
3. Particulate emissions from this source shall not exceed 0.01 gr/dscf, 4.5 lbs./hr., and 17.8 tons/yr. [Permit AC53-23546]
4. Due to the expense and complexity of conducting a stack test on minor a source of particulate matter, and because source is equipped with a baghouse, the Department, pursuant to the authority granted under Rule 17-2.700(3)(d), F.A.C., hereby establishes a visible emission limitation not to exceed an opacity of 5% in lieu of a particulate stack test for the baghouse exhaust.
5. Fluoride emissions from this source shall not result in an exceedance of the 0.060 pound per ton of P2O5 standard which covers the entire DAP Plant II West operating at its maximum permitted operating rate. For the typical P2O5 content of 46%, the maximum fluoride emission rate for the entire process is $140 \times 0.46 \times 0.060 = 3.86$ pounds per hour (15.2 tons per year). The permittee has established a fluoride allocation of 0.4 lbs./hr. (0.006 lbs./ton of P2O5) for the cooler and 3.5 lbs./hr. (0.054 lbs./ton of P2O5) for the DAP Plant II West. [Rule 17-2.660, F.A.C. and 40 CFR 60.222(a).].
6. The maximum product rate through the DAP Plant No. IIW cooler shall not exceed 140 tons/hr. (maximum P2O5 input to DAP Plant No. IIW is 64.4 tons/hr.) and 1,108,800 tons/yr. [Permit AC53-23546]
7. The DAP Plant No. IIW cooler may operate up to 7920 hours per year. [Permit AC53-23546]
8. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 17-2.610(3), F.A.C. These provisions are applicable to any source, including but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling.

PERMITTEE:
IMC Fertilizer, Inc.

Permit No.: A053-183082
Project: DAP II Plant, West
Product Cooler

SPECIFIC CONDITIONS:

TESTING REQUIREMENTS

9. This source shall be tested for fluorides and visible emissions annually within 30 days of July 30. Submit a copy of the test data to this office within 45 days of such testing. [Rules 17-2.700(2) and 17-2.700(7), F.A.C.]

10. Compliance with the emission limitations of Specific Condition Nos. 3, 4, and 5 shall be demonstrated in accordance with EPA Methods 1, 2, 4, 5, 9 and 13A or 13B as published in 40 CFR 60, Appendix A and adopted by reference in Rule 17-2.700, F.A.C.

11. The permitted product rate of this source is 112 tons/hr based on the rate at which the July 30, 1991 test was conducted. P2O5 input (tons/hr.) and DAP product throughput rate (tons/hr.) shall be reported along with the test data. Testing of emissions to show compliance shall be conducted within 90-100% of the permitted product rate. A compliance test submitted at a rate less than 90% of the permitted product rate will automatically constitute an amended permit at the lesser rate until another test, showing compliance at a higher rate, is submitted. Any time the permitted product rate of the source is exceeded by more than 10% a compliance test shall be performed within 30 days of initiation of the higher rate and the test results shall be submitted to the Department within 45 days of testing. Acceptance of the test by the Department will constitute an amended permit at the higher rate (not to exceed the maximum permitted product rate.) The emission limitations in this permit shall not change. Failure to submit the product rate and actual operating conditions in the test report may invalidate the test and fail to provide reasonable assurance of compliance. -[Rule 17-4.070(3), F.A.C. and Permit AC53-23546].

12. The permittee shall notify the Southwest District Office of the Department at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. [Rule 17-2.700(2)(a)9., F.A.C.].

OTHER REQUIREMENTS

13. Submit for this source, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information pursuant to Subsection 403.061(13), F.S.:

PERMITTEE:
IMC Fertilizer, Inc.

Permit No.: AO53-183082
Project: DAP II Plant, West
Product Cooler

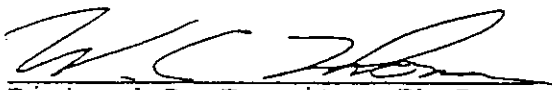
SPECIFIC CONDITIONS:

- (A) Annual amount of materials and/or fuels utilized;
- (B) Annual emissions (note calculation basis);
- (C) Any changes in the information contained in the permit.

The report shall be submitted to the Southwest District Office of the Department.

14. Four applications to renew this operating permit shall be submitted to this office at least 60 days prior to the expiration date of the permit pursuant to Rule 17-4.090(1), F.A.C.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


for Richard D. Garrity, Ph.D.
Director of District Management

APPENDIX III - MODELING OUTPUT DISK FILE INDEX