Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

November 18, 1994

Ms. Jewell A. Harper, Chief
Air Enforcement Branch
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Dear Ms. Harper:

RE: US Agri-Chemicals Corporation
Polk County
PSD-FL-222, MAP Plant
PSD-FL-223, DAP Plant

Enclosed for your review and comment are the above referenced PSD applications. Please forward your comments to the Department's Bureau of Air Regulation as soon as possible. The Bureau's FAX number is (904)922-6979.

If you have any questions, please contact John Reynolds or Katherine Zhang at (904)488-1344 or write to me at the above address.

Sincerely,

Patricia G Adams

for C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/pa

Enclosures

U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, FL 33841-9799
813 285 8121

US
Agri-Chemicals
A Sinochem Company

October 28, 1994

Florida Department of Environmental Protection
3804 Coconut Palm
Tampa, FL 33619

RE: Permit Applications for Construction of a Di-ammonium and Mono-ammonium Phosphate Plant

Dear Sir,

Enclosed please find the applications and $15,000 fees (2 @ $7,500) for the construction of a 40 tph MAP plant, and for a 150 tph DAP plant. While we only plan to construct one of the above facilities, we wish to begin the permitting process for both at this time. As we have not yet determined which facility to construct, we request that you process these permits separately, and we will withdraw one at a future date.

We appreciate your help in this matter. If you have any questions please feel free to call me at (813)285-8121 x279, or Viet Ta at extension 115.

Sincerely,

Ronald L. Brunk
Manager, Environmental Engineering

U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, FL 33841-9799
813 285 8121

[redacted]
Agri-Chemicals

A Sinochem Company

Malcolm S. Scott
President

This certifies Steven J. Susick, P. E., General Manager Engineering and Technical Services is the authorized agent for the property owned and controlled by U.S. Agri-Chemicals Corporation. Furthermore, Steven J. Susick is also the authorized applicant for permits to conduct regulated activities on behalf of U.S. Agri-Chemicals Corporation in the State of Florida.

U.S. Agri-Chemicals Corporation

WITNESS my hand and official seal this
19th day of November, 1992.

Kathryn S. Gooding
Notary Public
State of Florida

My Commission Expires:

OFFICIAL NOTARY SEAL
KATHRYN S GOODING
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. CC230077
MY COMMISSION EXP. SEPT 22,1996

(Attachment 1)

PERMIT APPLICATION FEE/ASSIGNMENT SHEET

APPLICATION TYPE: AC1A FILE PROCESSING NO: AC53-260192

COMPANY: US AGRI-CHEM COUNTY: 53 POLK
(Code/name)

DESCRIPTION/COMMENTS: DAP PLANT

(amend/extend/transfer/etc.) and permit no., when applicable

DATE REC'D (Day 1): 10/28/92

CHECK ATTACHED: (Y) N Not Required ( )

FEE SUBMITTED: (✓) correct ( ) incorrect - Should Be $ 7500.
(ONE $15,000. CK. RCVD FOR 2 APP'S) Submitted $ 7500.
Needed/Refund $

FEE CHECKED BY: JK DATE: 11/2

APPLICATION ASSIGNED TO: DATE:

PERMIT APPLICATION PROCESSING STATUS

	Completed	Initials
Date PATS Updated With Processor Name:		
Permit Engineer Submit Finished Permit Package & Recommendations to District Air Engineer:		
Permit Package to District Air Administrator:		
Permit Package to Director of District Management:		
Permit Package Mailed Out:		

DATA FOLLOW UP

Issue Date Updated on PATS:		
Updated on DEC:		

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

238092

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from IMC Agri-Agronomic Date 11-2-94

Address 2035 SR 630 West, Ft. Meade Dollars $ 15000.00

Applicant Name & Address Same

Source of Revenue DAP Plant, DAP Plant AC53-260190 - #7500.00

Revenue Code 3352 Application Number AC53-260192 - #7500.00

#1 #
11867

By Betty Carver

Permit Application for the Construction of a Di-Ammonium Phosphate Plant

US

Agri-Chemicals Corporation

A Sinochem Company

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

AC53-260192

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: MAP/DAP GRANULAR PLANT [XX] New[1] [ ] Existing[1]

APPLICATION TYPE: [XX] Construction [ ] Operation [ ] Modification

COMPANY NAME: U. S. Agri-Chemicals Corporation COUNTY: Polk

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) MAP/DAP GRANULAR PLANT

SOURCE LOCATION: Street 3225 S.R. 630 West City Ft. Meade

UTM: East 17-416 North 3069

Latitude 27 ° 44 ' 25 "N Longitude 81 ° 51 ' 05 "W

APPLICANT NAME AND TITLE: Steven J. Susick, General Manager Engineering & Technical Services

APPLICANT ADDRESS: 3225 State Road 630 West, Ft. Meade, Florida 33841-9799

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of U. S. Agri-Chemicals Corporatic

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Steven J. Susick

Steven J. Susick, General Manager Engineering & Technical Services
Name and Title (Please Type)

Date: 10/28/94 Telephone No. (813)285-8121 ext 344

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Steven J Susick

Steven J. Susick, P. E.

Name (Please Type)

U. S. Agri-Chemicals Corporation

Company Name (Please Type)

3225 State Road 630 West, Ft. Meade, Florida 33841-9799

Mailing Address (Please Type)

Florida Registration No. 0034374 Date: 10/28/94 Telephone No. (813)285-8121 ext 344

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Construction of a new 150 TPH MAP/DAP granular plant. Particulate matters are controlled by 3 cyclones and a baghouse. Fluorides are controlled by 2 packed tail gas scrubbers. Ammonia is recovered by 4 venturi scrubbers. Refer to figure 1.3.1

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction July 1995 Completion of Construction September 1996

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Estimated to be approximately 1.5 million dollars. Actual cost will be submitted with operating permit application.

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not applicable because this is a new plant.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

if power plant, hrs/yr_____; if seasonal, describe:_____

Annual operations will not exceed 8400 hours/year.

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No

   a. If yes, has "offset" been applied? N/A

   b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A

   c. If yes, list non-attainment pollutants. N/A

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. YES *

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. YES *

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? YES *

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

   a. If yes, for what pollutants? N/A

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

* See attached documentation.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Phosphoric Acid	Fluorides	0.7 - 1.2	138,300 (as	100% P_2O_5)
Ammonia	N/A	N/A	64,800	
Urea	N/A	N/A	3,321	

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 206,421

2. Product Weight (lbs/hr): 300,000

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

1. MAP/DAP stack - refer to Table III.C.2 for loadout stack.

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Particulate A	38.6	162	38.6	38.6	Plant operated		
Fluorides B	4.14	17.4	0.06	4.14	only with control		
Ammonia	5.25	22.1	N/A	N/A			
Visible emissions	N/A		20% opacity	N/A			

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

A: Process weight Table 17-296.310, FAC Unit = lbs. per hour

B: BACT unit = 0.06 lbs. per ton of P_2O_5 input

SECTION III.C Continued

NAME OF CONTAMINANT	EMISSION		ALLOWED EMISSION RATE PER RULE 17-2	ALLOWABL EMISSION LBS./HR	POTENTIAL EMISSION		RELATE TO FLOW DIAGRAM
	MAXIMUM LBS./HR	ACTUAL T/YR			LBS./YR	T/YR	
PARTICULATE C	37.8	79.4	43.1	37.8	PLANT OPERATED		
VISIBLE EMISSIONS	N/A		20% OPACITY	N/A	ONLY WITH CONTROL		

C: PROCESS WEIGHT TABLE 17 - 296.310, FAC . UNIT = LBS. PER HOUR

TABLE III. C. 2. LOADOUT STACK

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency %	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Venturi scrubber	PM & NH_3	95	10 - 1000	est.
Packed scrubber	FL & PM	95	N/A	est.
Baghouse	PM	94	10 - 1000	est.
Cyclones	PM	72	100 and up	est.
Oil Coating	PM	40	10 - 1000	est.

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.08357	0.08357	87.75

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: N/A Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating. N/A

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Dust collected in cyclones and baghouse are returned to Process. Scrubber liquor in tail gas scrubbers are recycled.

MAP/DAP STACK . SEE H.2 FOR LOADOUT STACK

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 132 ft. Stack Diameter: 7 ft.

Gas Flow Rate: 120,000 ACFM 100,500 DSCFM Gas Exit Temperature: 120 °F.

Water Vapor Content: 8 % Velocity: 52 FPS

SECTION IV: INCINERATOR INFORMATION

N/A

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel Type	Fuel BTU/hr	Temperature (°F)
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

H.2 LOADOUT STACK GEOMETRY & CHARACTERISTICS

HEIGHT: 100 FT.
DIAMETER: 3 FT.
FLOW RATE: 30,000 ACFM / 28600 DSCFM
TEMPERATURE: 80^{O} F
WATER VAPOR: AMBIENT
VELOCITY: 71 FPS

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

See Appendix A

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[X] Yes [ ] No

Contaminant	Rate or Concentration
F	0.06 lbs. per ton of P_2O_5 input

B. Has FDEP declared the best available control technology for this class of sources (If yes, attach copy)

[XX] Yes [ ] No

Contaminant	Rate or Concentration
IMC F (Permit AC53-232681)	0.0417 lbs. per ton of P_2O_5 input
Farmland F (Permit AC53-210886)	0.06
Cargill F (Permit AC29-196763)	0.06

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
F	0.06 lbs. per ton of P_2O_5 input

D. Describe the existing control and treatment technology (if any).

1. Control Device/System: Scrubbers
2. Operating Principles: absorption
3. Efficiency:* 95%
4. Capital Costs: 1 million dollars

*Explain method of determining estimate

5. Useful Life: 40 years

6. Operating Costs: 100,000 dollars

7. Energy: Electricity

8. Maintenance Cost: 50,000 dollars

9. Emissions: See Section III. C

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: 132 ft.

b. Diameter: 7 ft.

c. Flow Rate: 120,000 ACFM

d. Temperature: 120 °F.

e. Velocity: 55 FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy [2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operat within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operat within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device: Scrubbers

2. Efficiency:[1] 95 + %

3. Capital Cost: $1 million

4. Useful Life: 40 years

5. Operating Cost: $100,000

6. Energy:[2] Data currently not available.

7. Maintenance Cost: $50,000

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO_2 _____ Wind spd/dir

Period of Monitoring ____/____/____ to ____/____/____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

[2]Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. 1 Year(s) of data from 01 / 01 / 86 to 12 / 31 / 86
month day year month day year

2. Surface data obtained from (location) Tampa, Florida

3. Upper air (mixing height) data obtained from (location) Tampa, Florida

4. Stability wind rose (STAR) data obtained from (location) Tampa, Florida

C. Computer Models Used

1. ISC 2 (93109) Modified? NO If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables. Attached as exhibits A through E

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
~~XXXX~~ F	0.522	grams/sec
SO^2		grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review. See attached report. .

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources. None expected.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

TABLE OF CONTENTS

APPENDIX A: EMISSIONS CALCULATIONS

APPENDIX B: COMPUTER AIR MODELING

Exhibit A: Model for TSP impact on Hillsborough Maintenance Area.
Exhibit B: Model for TSP impact on the immediate vicinity.
Exhibit C: Model for FL impact on the immediate vicinity due to DAP plant alone.
Exhibit D: Model for FL impact on the immediate vicinity due to DAP and phosphoric acid plants.
Exhibit E: Model for ammonia impact on the immediate vicinity.

1.0 SYNOPSIS OF APPLICATION

1.1 APPLICANT

Steven J. Susick, P.E.
General Manager of Engineering and Technical Services
U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Ft. Meade, FL 33841-9799

1.2 FACILITY LOCATION

U.S. Agri-Chemicals (USAC) operates a chemical plant on the property located 2.3 miles west of Ft. Meade, Polk County, Florida. The UTM Coordinates are Zone 17, 416 km East and 3069 km North. Refer to Figure 1.2.1 for the Site Location Map. Refer to Figure 1.2.2 for the Area Location Map. Refer to Figure 1.2.3 for the Plot Plan.

1.3 PROPOSED PROJECT DESCRIPTION

USAC proposes to construct a new 150 tons per hour diammonium phosphate (DAP) plant. The plant consists of a phosphoric acid storage and handling system, an ammonia storage and handling system, a DAP plant, and a DAP storage and loading system. Refer to Figure 1.3.1 for the DAP Process Flow Diagram.

1.3.1 PHOSPHORIC ACID STORAGE AND HANDLING SYSTEM

Phosphoric acid produced on site will be transferred to two existing tanks each with a capacity of 248,000 gallons. The tanks will be used to adjust the P_2O_5 concentration prior to feeding the acid to the DAP plant.

The acid tanks are placed inside the containment area. The tanks are inspected and maintained in accordance with a written "Mineral Acid Tank Containment and Integrity Plan".

1.3.2 AMMONIA STORAGE AND HANDLING SYSTEM

Anhydrous ammonia will be received by railcars and trucks. Ammonia will be stored in two bullets (horizontal tanks) each holding approximately 200 tons of ammonia. Refer to Figure 1.3.2 for the Ammonia Flow Diagram.

The railcar unloading pipeline and each bullet will be equipped with a pressure relief valve. An ammonia detection system will be installed in the storage and railcar unloading area. This detection system will provide signals to the water deluge system. When activated, the water deluge system sprays water over the storage and railcar unloading area to absorb ammonia vapors.

FIGURE 1.2.1
SITE LOCATION MAP

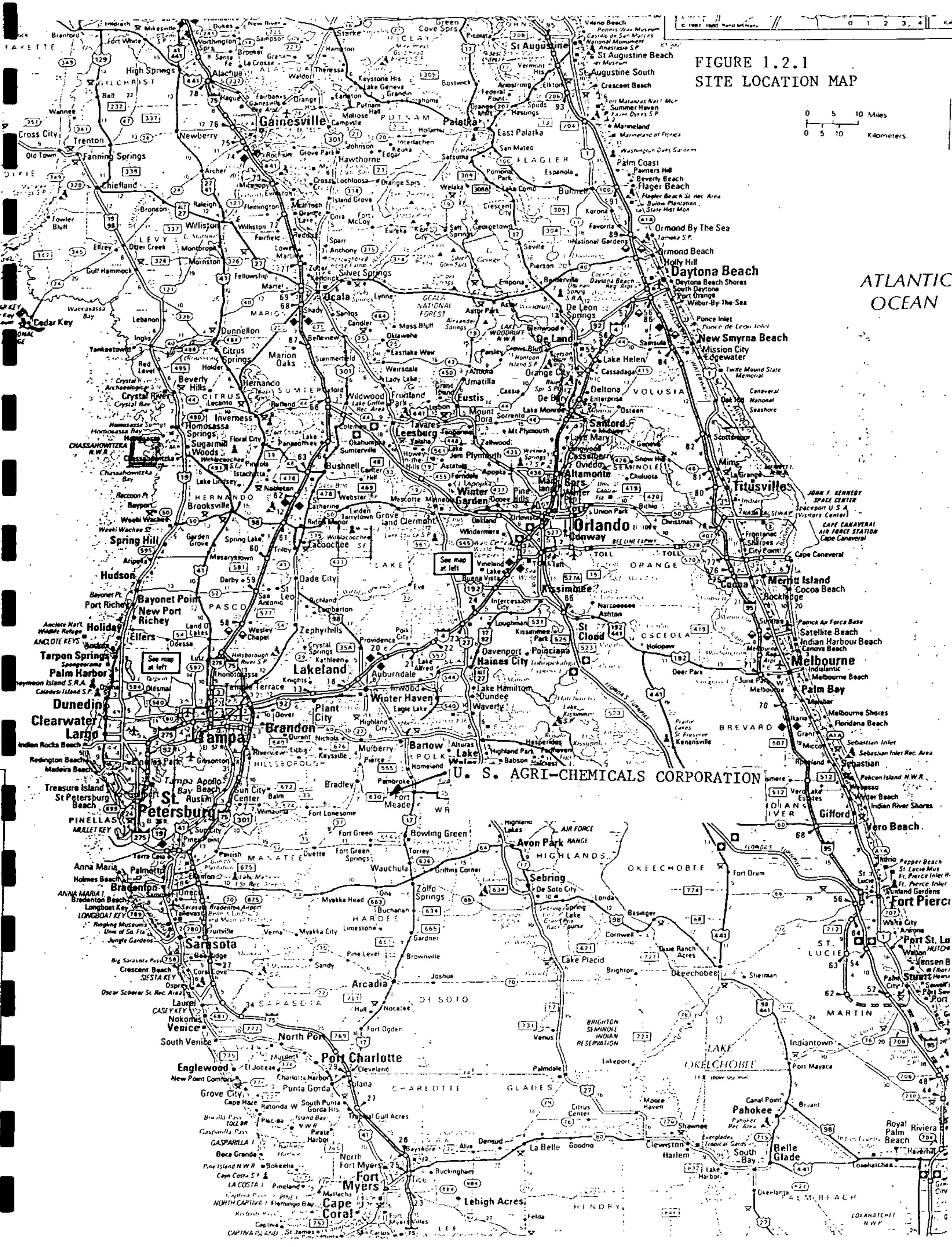
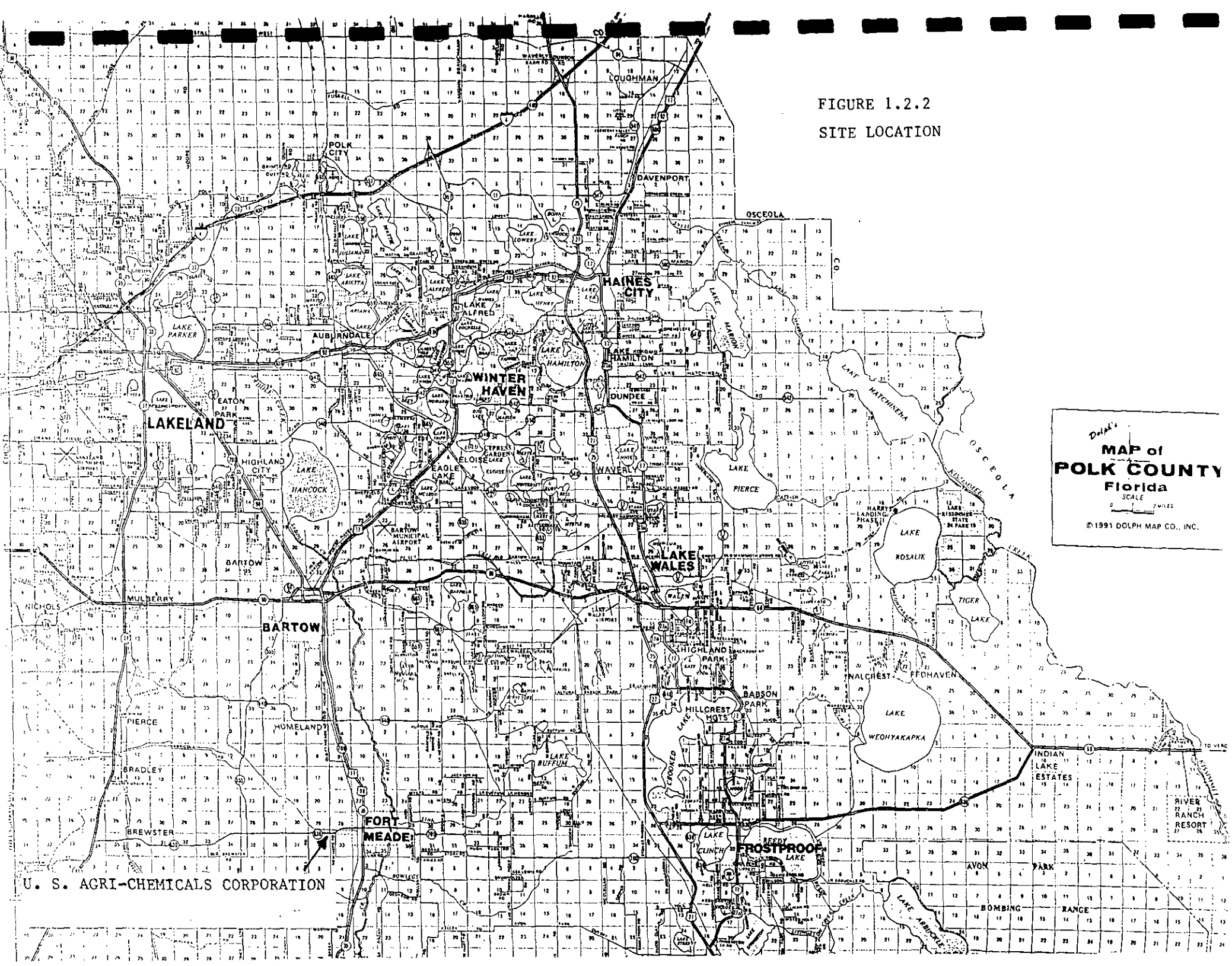


FIGURE 1.2.2

SITE LOCATION



U. S. AGRI-CHEMICALS CORPORATION

FMCP Plot Plan
Proposed Facility Location

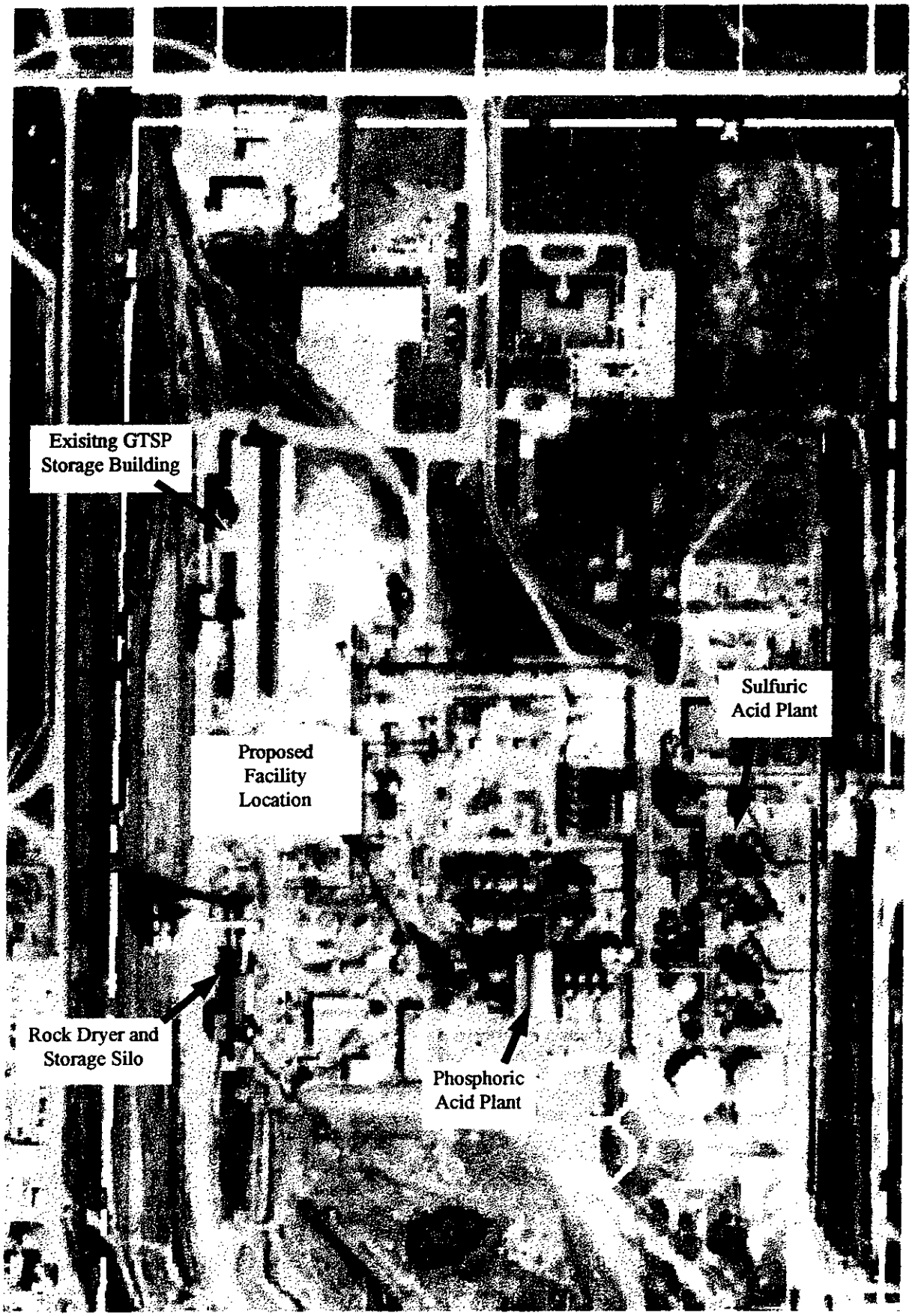


Figure 1.2.3

DAP PLANT

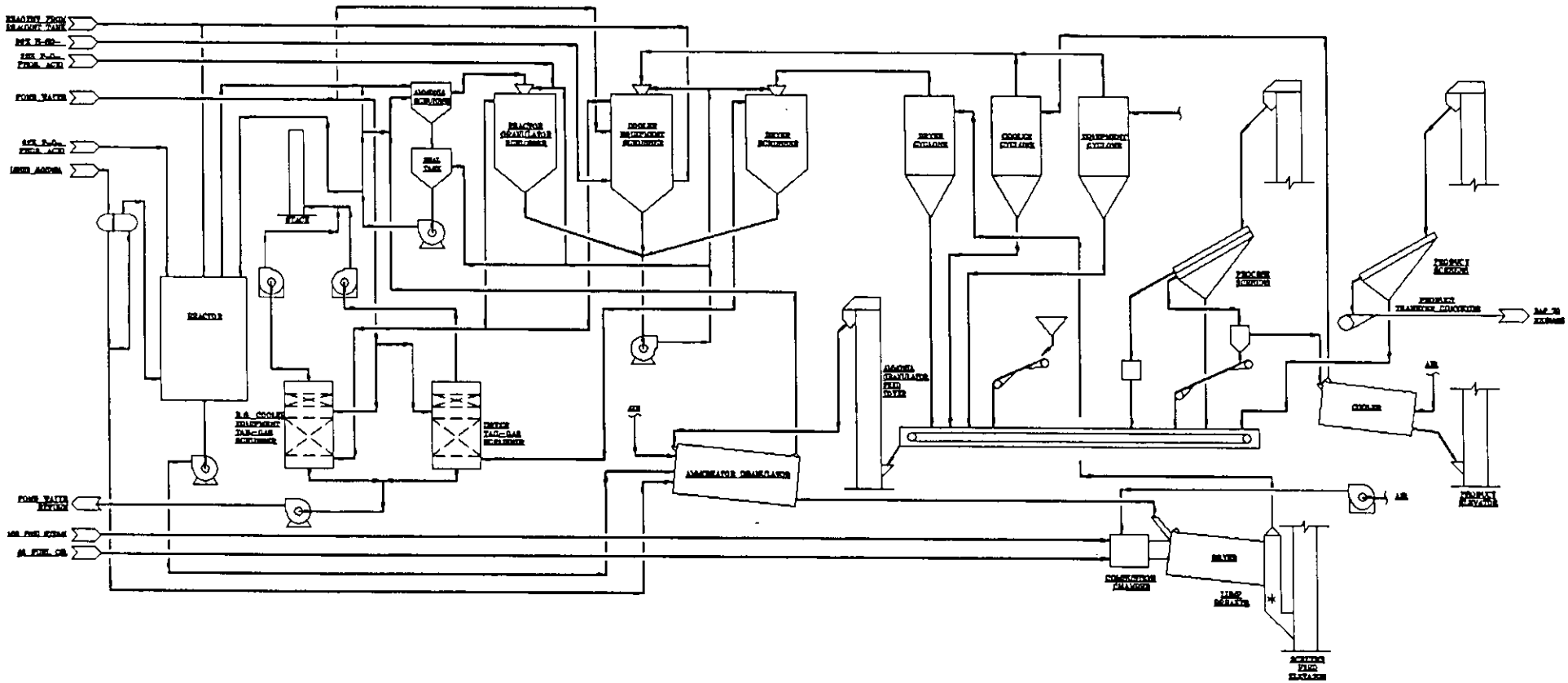


FIGURE 1.3.1

DAP FLOW DIAGRAM

Ammonia System

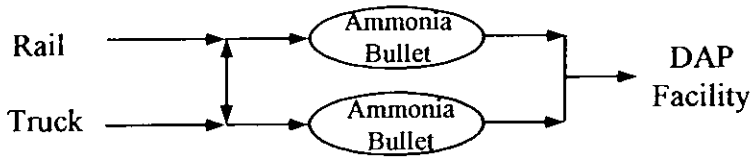


Figure 1.3.2

Whether by railcar or truck, ammonia transfers are conducted by an onsite operator. The presence of an operator allows rapid assessment and response to any release as well as immediate emergency notification.

The plant is designed with 4 venturi scrubbers to capture unreacted ammonia which would otherwise leave the process equipment. The collected ammonia is returned to the process to reduce emissions and reduce raw material consumption. The plant operating procedures will be designed to minimize ammonia losses during startup, shutdown, and steady-state operation. For example, the scrubbers will be started prior to introducing ammonia into the process and are among the last pieces of equipment to be shutdown.

1.3.3 DIAMMONIUM PHOSPHATE (DAP) PLANT

The main process equipment of the DAP plant are: a reactor, a granulator, a dryer, a screening and sizing system, a cooler, and the air pollution control equipment (see Figure 1.3.1 for the DAP Process Flow Diagram). The proposed maximum DAP production rate is 150 tons per hour. This production rate equates to 69 tons of P_2O_5 per hour. The corresponding ammonia feed rate is 33 tons per hour.

The DAP process begins in the reactor. Measured quantities of ammonia and phosphoric acid are fed into the reactor to produce 1.5 mole ratio slurry. The slurry is sprayed onto a bed of fines and granules in the granulator where additional ammonia is added to raise the mole ratio to 1.98. The granulator discharges to a natural gas fired dryer to reduce product moisture. The dried granules are conveyed to the screener to separate the product-size granules from the under-size and the over size materials. The product-size materials are conveyed to the cooler where additional heat and moisture are removed. The over-size materials are crushed and returned to the granulator along with the under-size. The product-size granules are coated to reduce dust generated by handling. Urea may be added to bring the product to nitrogen specification. The DAP product is conveyed to the storage building and loaded into railcars or trucks (see Figure 1.3.3 for the Product Loadout Diagram).

An important function of the air pollution control system is the recovery of ammonia and phosphate in the exhaust gas streams. The exhaust gas streams from the reactor, granulator, dryer, cooler, and screener contain ammonia. There are 4 venturi scrubbers using phosphoric acid as the scrubbing liquor to absorb ammonia. The venturi scrubbers are also effective in the removal of dust containing ammonium phosphate. Three cyclone separators are installed upstream of the venturi scrubbers to remove the majority of dust to reduce build-up in the venturi scrubbers. The scrubber liquor is pumped to the reactor to reclaim ammonia and to serve as a phosphoric acid input side stream. Exhaust from the venturi scrubbers is ducted to two tail gas scrubbers for fluorides and additional particulate removal. Dust generated from the railcar loading is controlled by a baghouse.

DAP Product Loadout

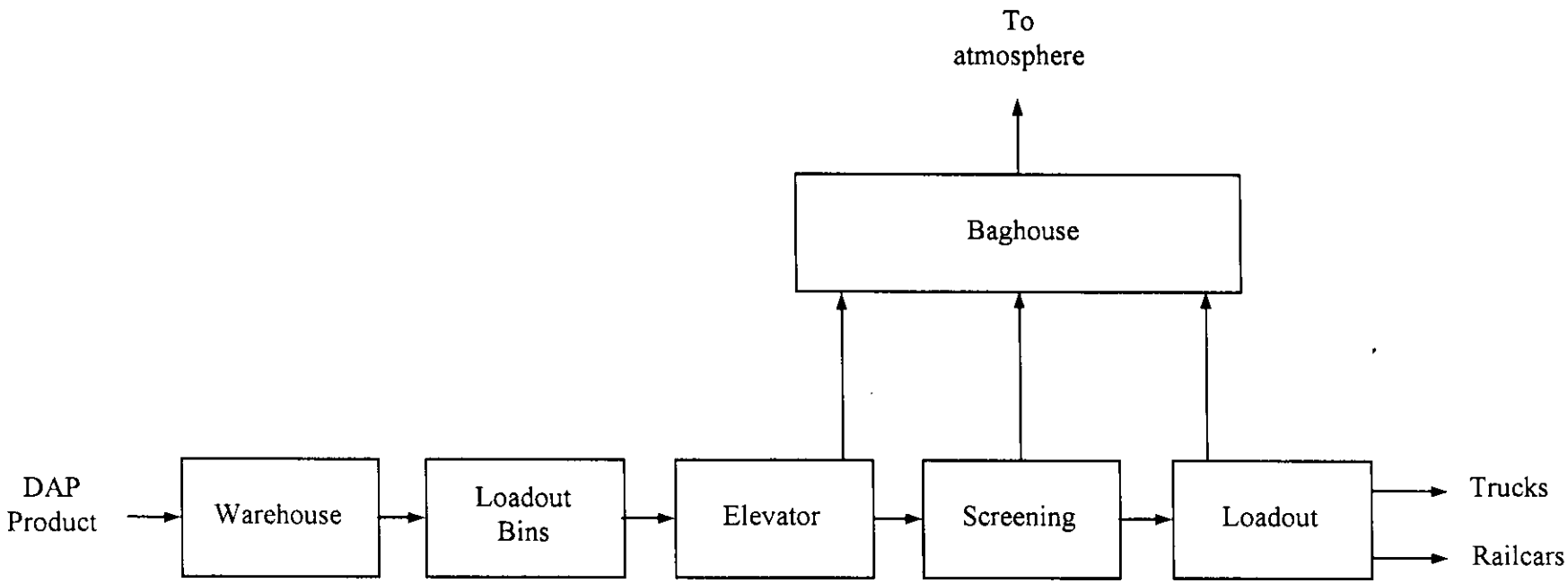


Figure 1.3.3

2.0 EXISTING FACILITY DESCRIPTION

The existing facility consists of two sulfuric acid plants, two phosphoric acid plants, a rock dryer, and the supporting equipment. The supporting equipment include an auxiliary boiler, a lime silo, phosphoric acid tank farm, rock screening and storage, and the sulfur storage. Refer to Figure 2.0.1 for the Existing Facility Flow Diagram. The following table lists the plants and equipment along with the current permits and their capacity.

Table 2.1
Facility Air Permits

Plant	Permit#	Capacity
Sulfuric Acid #1	AO53-212737	2200 tons per day
Sulfuric Acid #2	AO53-212738	2200 tons per day
Phosphoric Acid A	AO53-212733	1000 tons per day
Phosphoric Acid B	AO53-212734	1000 tons per day
Phosphoric Acid Tank Farm	AO53-229855	N/A
Sulfur Storage and Handling	AO53-188251	N/A
Auxiliary Boiler	AO53-234085	110 MMBTU/HR
Lime Silo	AO53-238044	N/A
Rock Dryer, Screening and Storage	AO53-221968	200 tons per hour

The permitted and actual emissions from the plants and equipment are summarized in the following table:

Table 2.2
Summary of Facility Emissions

	Facility Emissions (tpy)									
	Permitted				Actual*				New	
Source	F	SO_2	SAM	TSP	F	SO_2	SAM	TSP	F	TSP
Sulfuric Acid #1		1608	60.4			576	12.7			
Sulfuric Acid #2		1608	60.4			927	12.6			
Phosphoric Acid "A" Train	3.5				0.6					
Phosphoric Acid "B" Train	3.5				0.6					
Phosphoric Acid Tank Farm	Tank farm emissions included in "A" and "B" Train permits									
Sulfur Storage & Handling	Permit does not set mass emission limits									
Auxiliary Boiler		1.3		0.5		.001		0.01		
Lime Silo				0.13				0.13		
Rock Dryer & Storage				231.3						0
DAP Plant									17.4	162
DAP Product Loadout										79.4
Total Facility Emissions	7	3217	121	232	1.2	1503	24.3	0.01	24.4	242
* Actual emissions based on average of last two years except lime silo (issued in '93) is one year										

Exisiting FMCP Facility Flow Diagram

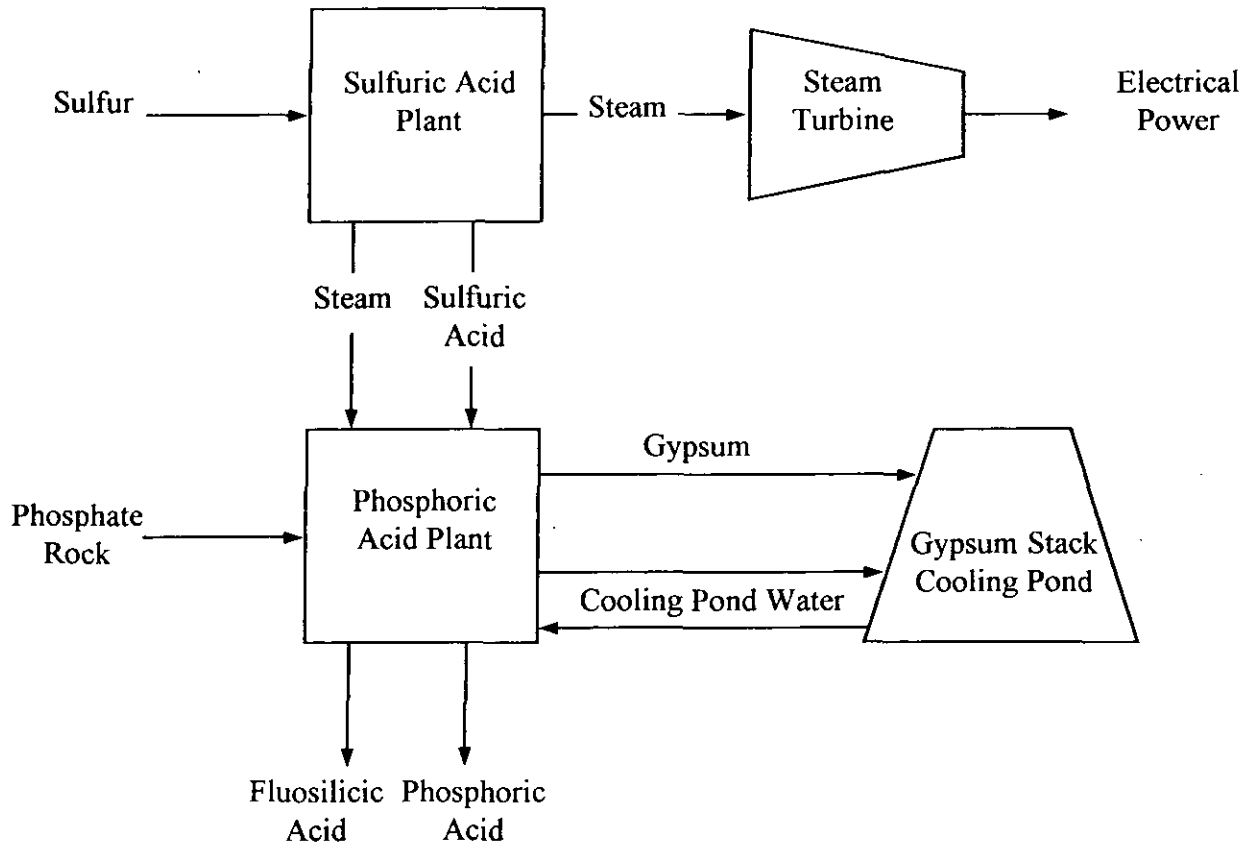


Figure 2.0.1

2.1 SULFURIC ACID PLANTS

These plants are designed by Monsanto following the double absorption process. Sulfur from storage tank is pumped into the furnace to be oxidized into sulfur dioxide. Sulfur dioxide is then passed through 3 vanadium pentoxides catalyst beds to be converted into sulfur trioxide which is absorbed in the interpass acid tower to increase acid strength. Water is added as needed to control acid strength to product concentration. Unconverted sulfur dioxide is passed through a fourth catalyst bed to produce additional sulfur trioxide which is absorbed in the final acid tower. Acid mist created in the towers is captured by the mist eliminators. Refer to Figure 2.1.1 for the Sulfuric Acid Plant Flow Diagram.

2.2 PHOSPHORIC ACID PLANTS

These plants are designed by Badger following the dihydrate process. Phosphate rock is ground in a ball mill to produce rock slurry. Rock slurry is digested in the reactor by sulfuric acid to produce 29% phosphoric acid and phosphogypsum. Phosphogypsum is removed by filtering and deposited on the gypsum stack. The 29% phosphoric acid is concentrated by evaporators to produce 40% and 52% acids. The acids are clarified before being pumped to storage tank. Vapors in the evaporators are collected in the condensers to produce fluocilicic acid. Fluoride emissions from the phosphoric acid plants and the tank farm are controlled by venturi scrubbers. Refer to Figure 2.2.1 for the Phosphoric Acid Plant Flow diagram.

2.3 ROCK DRYER, SCREENING AND STORAGE

The rock dryer is used to reduce moisture content in the phosphate rock or concentrate prior to shipping. The dryer has a maximum heat input rate of 111.6 MMBTU/HR. It can be operated on either natural gas or No. 6 fuel oil with a maximum sulfur content of 2.3%. The maximum permitted process rate is 200 tons per hour. Particulate matter emissions from the dryer are controlled by a venturi and an impingement plate scrubbers. Dried rock is conveyed to a screening system to remove oversize prior to being loaded into silo. Particulate matter emissions from the screening system and the silo are controlled by a cyclone and a venturi scrubber. Refer to Figure 2.3.1 for the Rock Dryer, Screening and Storage Flow Diagram.

2.4 SULFUR STORAGE AND HANDLING

The operation of the sulfuric acid plants requires a steady supply of molten sulfur. Sulfur is shipped to the plant by trucks and railcars. These discharge sulfur into a sulfur pit to be pumped into the sulfur tank. Sulfur is withdrawn from the tank as needed to operate the sulfuric acid plants. Air pollutants emitted from sulfur unloading and storage are uncontrolled and may include trace amounts of particulate sulfur, organic compounds, and sulfur dioxides. Refer to Figure 2.4.1 for the Sulfur Storage and Handling Flow Diagram.

FMCP Sulfuric Acid Plant Gas Flow

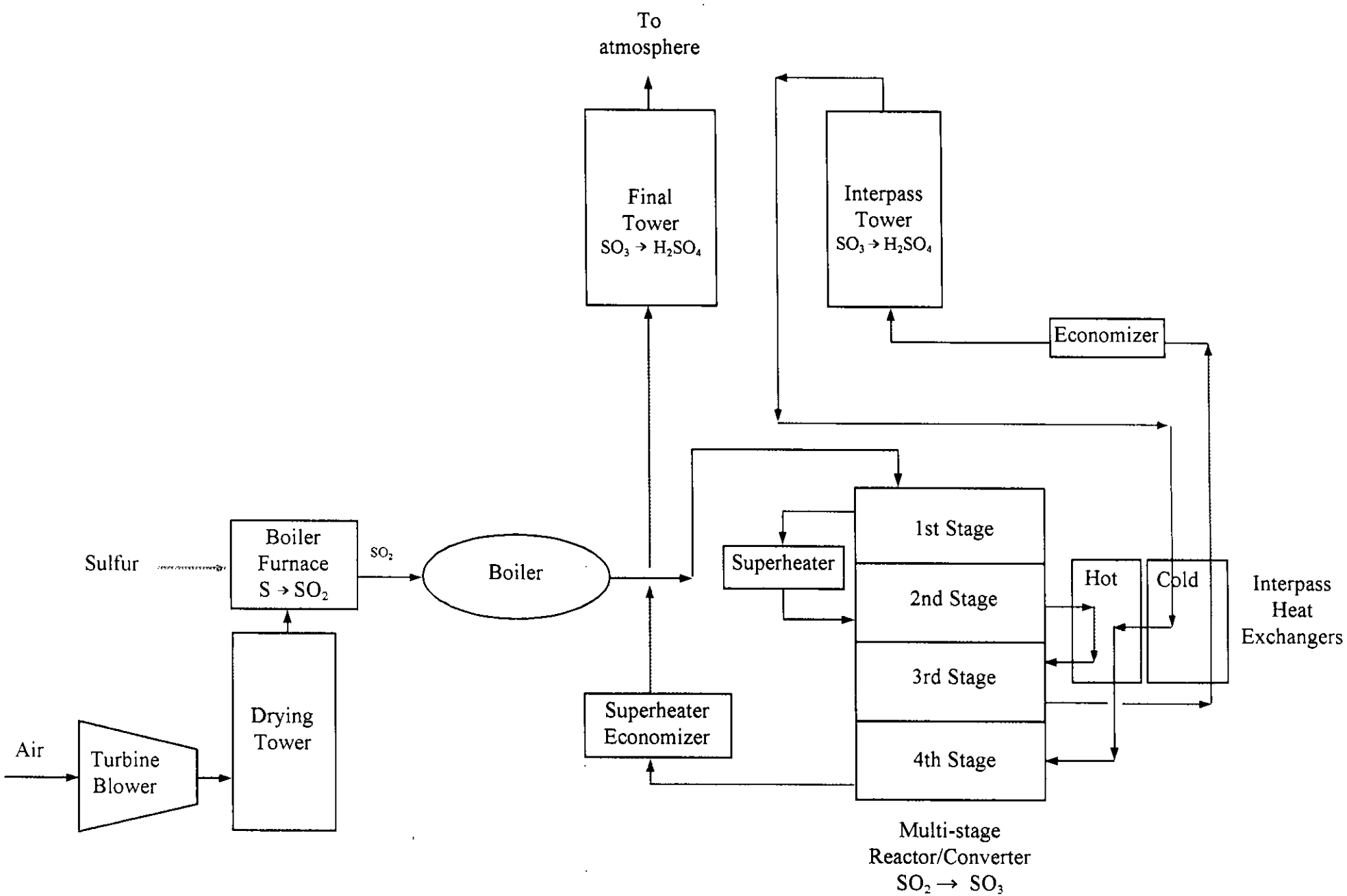


Figure 2.1.1

FMCP Wet Phosphoric Acid Process

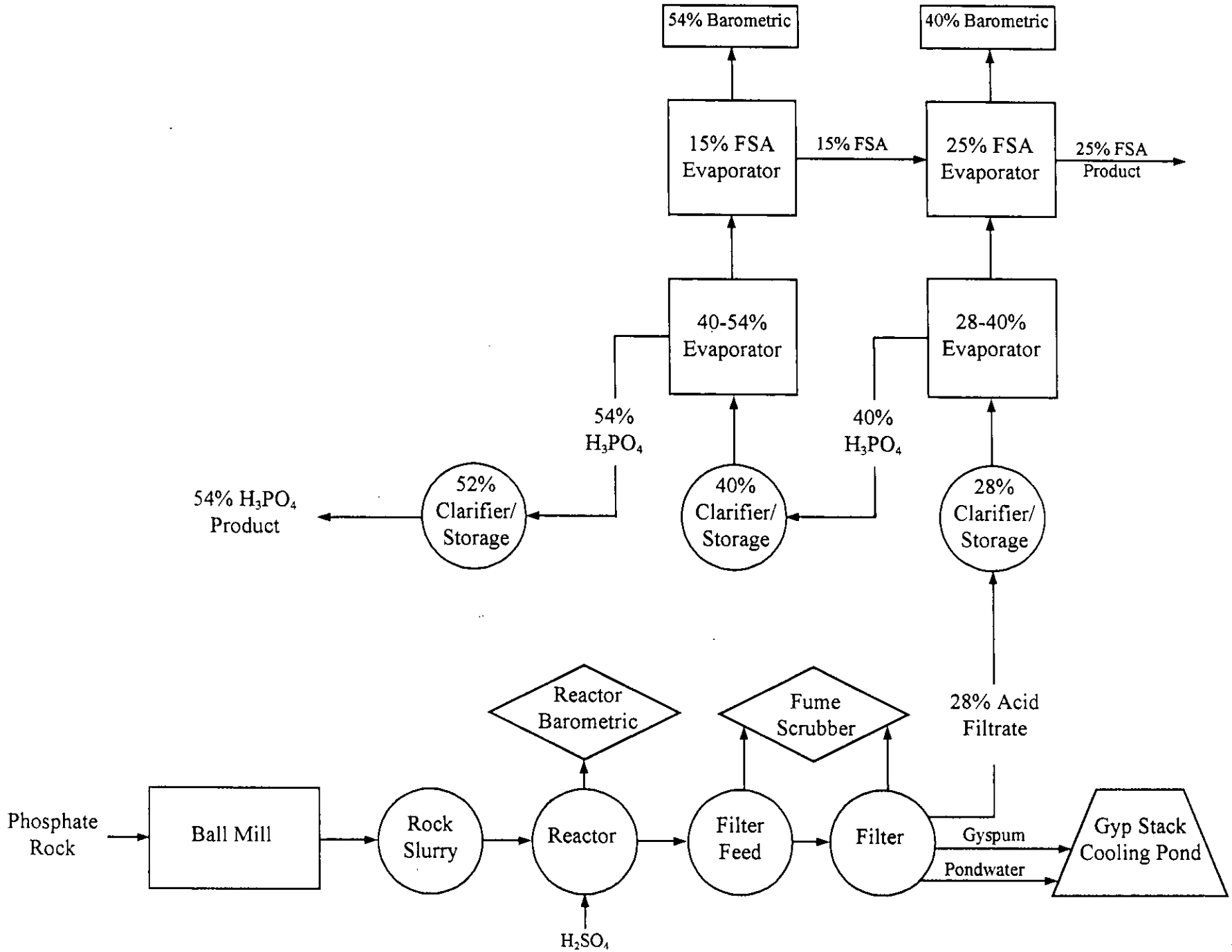


Figure 2.2.1

FMCP Phosphate Rock Drying, Screening, and Storage

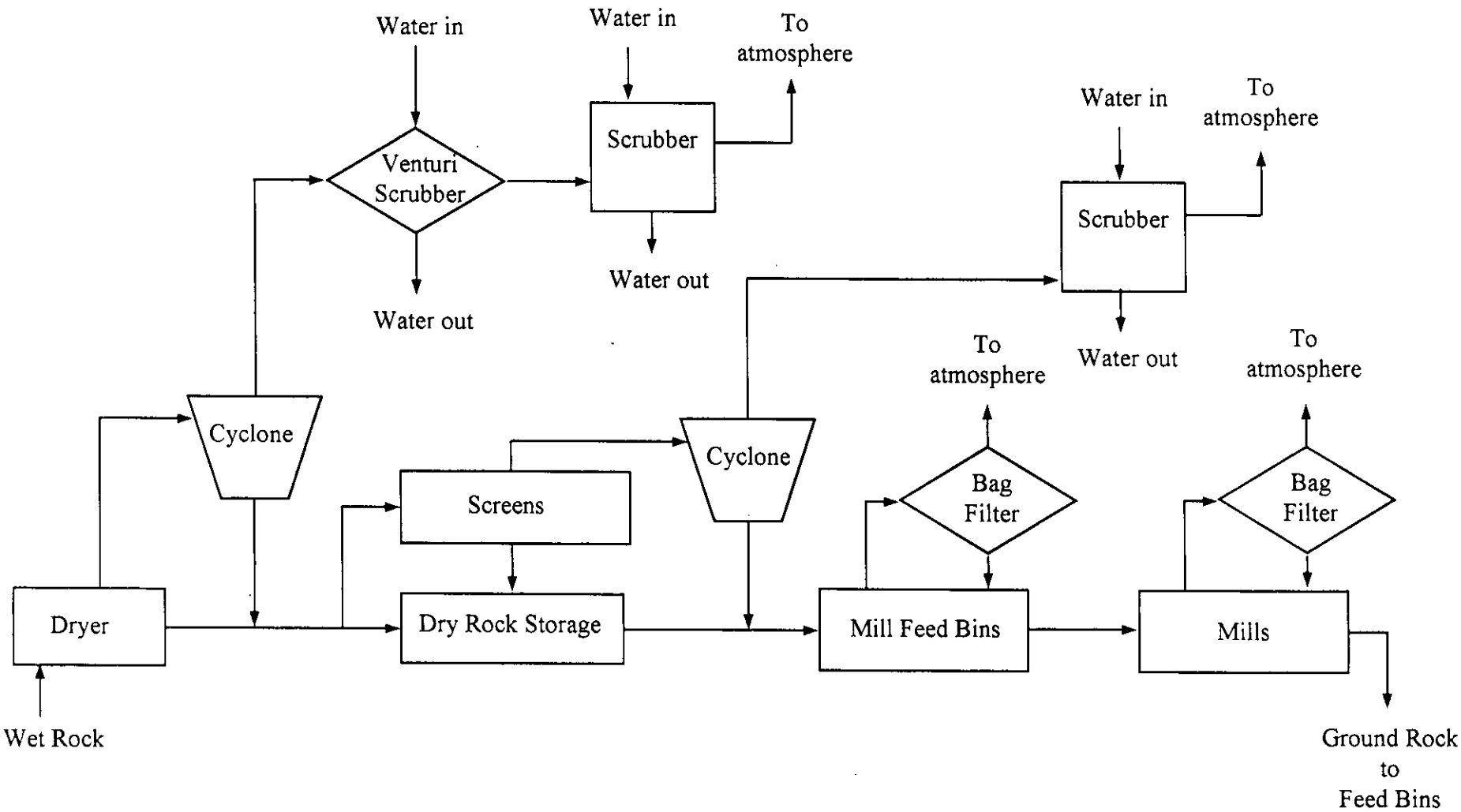


Figure 2.3.1

FMCP Molten Sulfur Storage and Handling

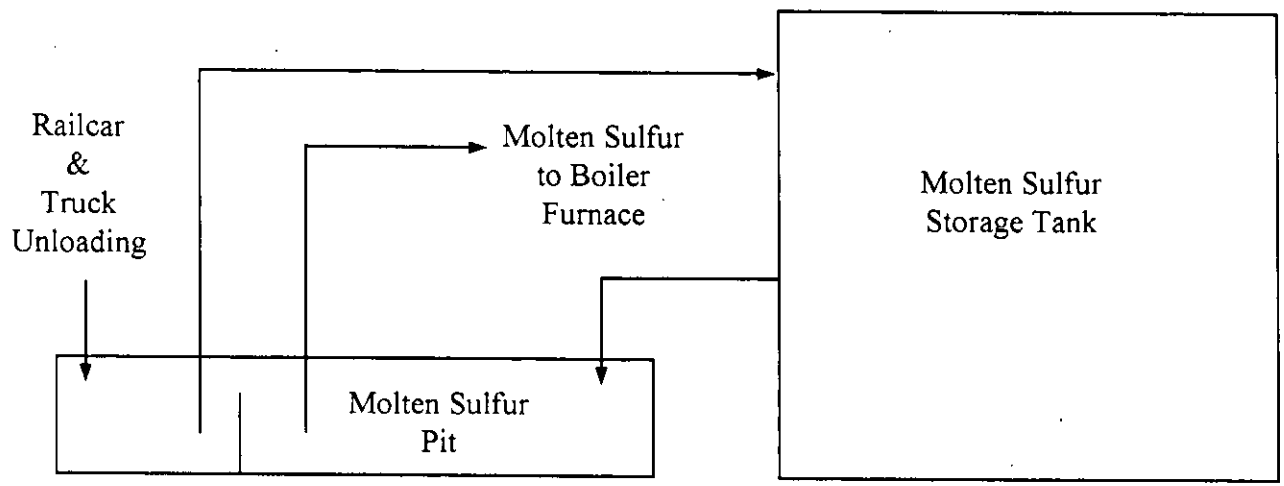


Figure 2.4.1

2.5 LIME SILO

The operation and maintenance of the phosphoric acid and sulfuric acid plants includes the potential for acid spills and leaks. Lime is used to make a slurry which neutralizes these spills and leaks. Lime is shipped to the plant by trucks and pneumatically pumped into the silo for storage. Lime is withdrawn from the silo and discharge into a mix tank where water is added to produce lime slurry. Particulate matter emitted during silo loading is controlled by a baghouse. Refer to Figure 2.5.1 for the Lime Silo Flow Diagram.

2.6 AUXILIARY BOILER

The normal operation of the sulfuric acid plants provide adequate steam for the operation of the phosphoric acid plants. Therefore, the boiler is not operating for the majority of the time. Whenever the sulfuric acid plants are shutdown, the boiler can be operated to provide steam to the phosphoric acid plant. The boiler is designed to operate on either natural gas or #2 fuel oil. Natural gas is the primary fuel and #2 fuel oil is used only as a backup when natural gas is not available. Air pollutants emitted due to fuel combustion are uncontrolled.

3.0 RULE REVIEW

The preconstruction review for stationary sources are covered under Florida Administrative Code, Rule 62-212. This Rule specifies requirements for sources subject to: i) Prevention of Significant Deterioration (PSD), ii) Non-attainment areas, and iii) not subject to PSD or non-attainment.

3.1 PSD RULE REVIEW

The PSD Rule is found in 62-212.400, FAC. It prohibits the construction or modification of any source that would cause or contribute to a violation of the ambient air quality standard. 40 CFR 51, Subpart I, Section 51.165 states that a major source or modification will be considered to cause or contribute to a violation of the ambient air quality standard when such source exceeds the following significant levels (see Table 3-1) at a locality that does not or would not meet the applicable ambient air quality standards (AAQS):

Table 3-1
Significant Levels

Pollutant	Annual	24-hrs	8-hrs	3-hrs	1-hr
SO_2	1 $\mu g/m^3$	5 $\mu g/m^3$		25 $\mu g/m^3$	
PM_{10}	1 $\mu g/m^3$	5 $\mu g/m^3$			
NO_2	1 $\mu g/m^3$				
CO	1 $\mu g/m^3$		0.5 $\mu g/m^3$		2 $\mu g/m^3$

FMCP Neutralizing System
Hydrated Lime Storage Silo

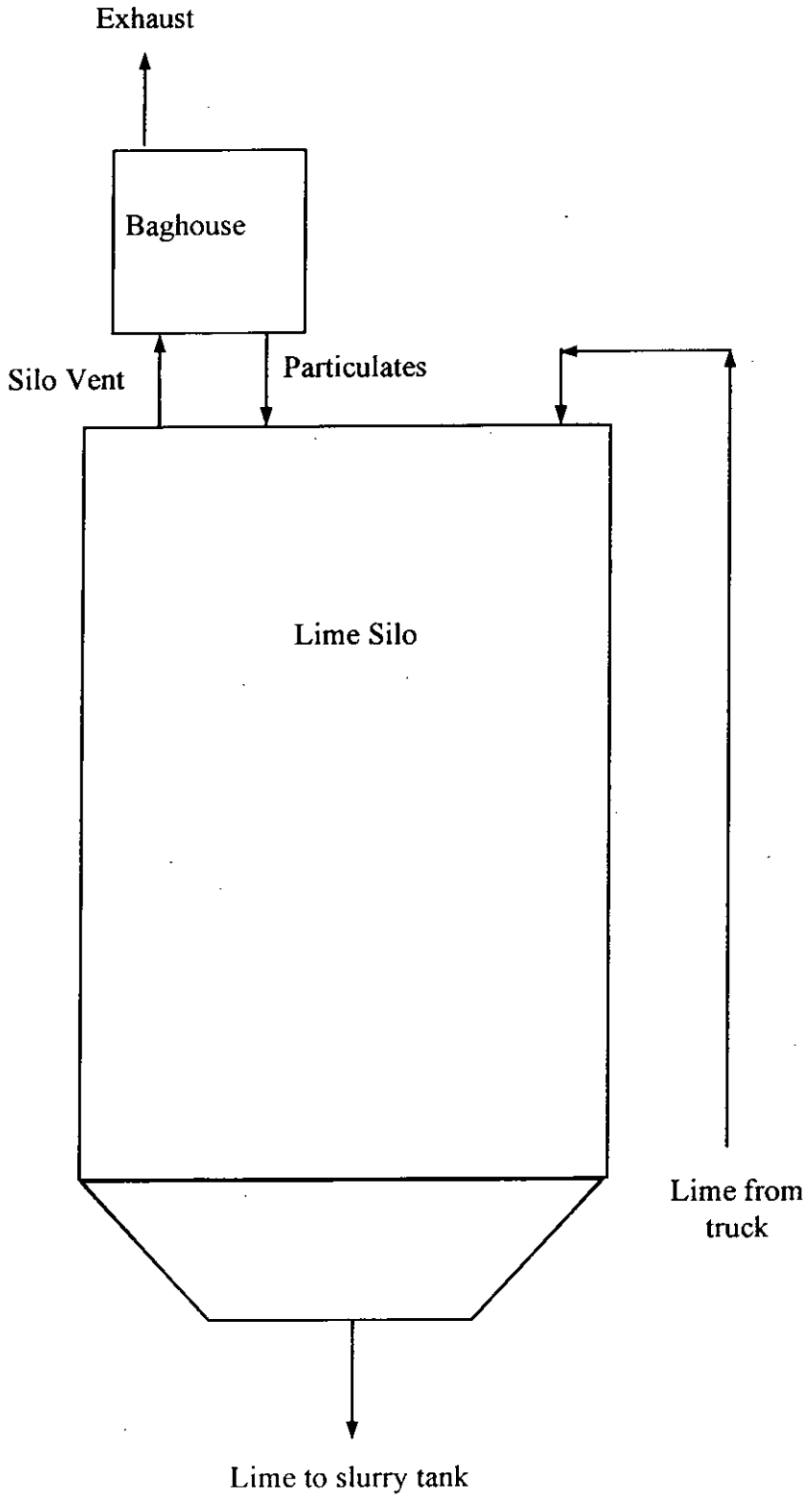


Figure 2.5.1

Air Quality Areas designations are found under Rule 62-275, FAC. Polk County has been designated as meeting AAQS for pollutants SO_2, CO, and NO_2, and as unclassifiable for pollutant PM_{10}. However, a particulate matter air quality maintenance area exists 50 km to the west of the proposed project. This area is "That portion of Hillsborough County which falls within the area of the circle having a centerpoint at the intersection of U.S. 41 South and State Road 60 and a radius of 12 kilometers." In order to determine whether or not the particulate matter emissions from the proposed project exceeds the above significant level, computer modeling was run. Emissions from the proposed project were modeled with a receptor placed at the above maintenance area. Exhibit A is a print out of the results of the run showing an annual particulate matter impact of 0.03 ug/m^3 compared to the significant level of 1 ug/m^3. It also show a 24-hour impact of 0.52 ug/m^3 compared to the significant level of 5 ug/m^3. Since the results are well below the significant levels, it can be concluded that the proposed project will not cause or contribute to violation of the particulate matter AAQS.

The Rule also prohibits an increase in the baseline concentration above the allowable PSD increments. 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.

The Ft. Meade Chemical Plant is located in a Class II area. The nearest Class I area is the Chassahowitzka National Wild Life Refuge which is more than 125 kilometers from the facility.

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

The emissions not included in the baseline concentration and, therefore, affecting PSD increment consumption, are the actual emissions from any major stationary facility on which construction commenced after January 6, 1975, for SO_2 and PM (TSP); after February 8, 1988, for NO_2; and the actual emission increases and decreases at any stationary facility occurring after the baseline date. The PSD increments are provided for Classes I, II, and III areas. The proposed project location is designated under Rule 62-275.800 as Class II area. The allowable PSD increments are listed under Rule 62-212.400(4) and are presented in Table 3-2.

Table 3-2
Allowable PSD Increments
(State/National)
($\mu g/m^3$)

Pollutant	Period	Class I	Class II	Class III
TSP	Annual	5	19	37

Table 3-2 Allowable PSD Increments (State/National) ($\mu g/m^3$)				
Pollutant	Period	Class I	Class II	Class III
TSP	24-hr	10	37	75
SO_2	Annual	2	20	40
SO_2	24-hr	5	91	182
SO_2	3-hr	25	512	700
NO_2	Annual	2.2	25	50

Particulate emissions from the proposed project were modeled with a polar receptor network placed at 10 degrees increments and at distances of 250, 500, 750, 1000, 1500, and 2000 meters. Exhibit B is a print out of the run. The results show the highest annual particulate matter impact of 3.4 $\mu g/m^3$ compared to the PSD increment of 19 $\mu g/m^3$. It also show the highest 24-hour impact of 27.6 $\mu g/m^3$ compared to the PSD increment of 37 ug/m^3. Both of these impacts occur 500 meters from the plant in a northerly direction. No other particulate matter PSD increment consuming sources are expected to have a significant impact in this area. Since the results are well below the PSD increments, it can be concluded that the proposed project will not exceed the allowable PSD increments.

The PSD review applies to the construction or modification of major facilities located in attainment areas. Since the proposed project is located in an attainment area, the PSD review is required. PSD review process determines whether the construction or modification would trigger the PSD New Source Review (NSR) requirements in Rule 62-212.400(5).

The following sections explore Rule 62-212.400 to determine whether or not the proposed plant is subject to PSD New Source Review (NSR) requirements.

A new facility is subject to the PSD NSR if it is:

- A facility which has the potential to emit 250 tons per year (tpy) of any regulated pollutant.

- A facility which has the potential to emit 100 tons per year (tpy) of any regulated pollutant and it belongs to one of the 28 specific source categories listed in the Standard Industrial Classification Code (SIC) (see Table 3-3).

- A facility which has the potential to emit 5 tons of lead per year (tpy) or more.

- A minor facility which becomes a major facility due to a modification.

Table 3-3 Major Facility Categories
Fossil fuel fired steam electric plants of more than 250 MMBTU/hr heat input
Coal cleaning plants (with thermal dryers)
Kraft pulp mills
Portland cement plants
Primary zinc smelters
Iron and steel mill plants
Primary aluminum ore reduction plants
Primary copper smelters
Municipal incinerators capable of charging more than 250 tons of refuse per day
Hydrofluoric acid plants
Sulfuric acid plants
Nitric acid plants
Petroleum refineries
Lime plants
Phosphate rock processing plants
Coke oven batteries
Sulfur recovery plants
Carbon black plants (furnace process)
Primary lead smelters
Fuel conversion plants
Sintering plants
Secondary metal production plants
Chemical process plants
Fossil fuel boilers (or combinations thereof) totaling more than 250 million BTU/hr heat input
Petroleum storage and transfer units with total storage capacity exceeding 300,000 barrels
Taconite ore processing plants
Glass fiber processing plants
Charcoal production plants

A modification to a major facility is subject to the PSD NSR if:

→ The facility would be subject to the PSD NSR if it were itself a proposed new facility.

→ The modification will result in a significant net emission increase of any pollutant (see following table)

Table 3-4 Significant Emission Rates of Regulated Pollutants		
Pollutant	tons/yr	lbs/yr
CO	100	
NOx	40	
SO_2	40	
Ozone	40	
PM	25	
PM10	15	
TRS (including H2S)	10	
H_2SO_4 mist	7	
Fluorides	3	
Vinyl Chloride	1	
Lead		1200
Mercury		200
Asbestos		14
Beryllium		0.8

The Fort Meade Chemical Plant (FMCP) is listed under SIC Code 38 "Chemical Process Plant. It has the potential to emit more than 100 tons per year of a regulated pollutant, SO2. The proposed DAP Plant is also listed in the SIC Codes under "Chemical Process Plants". It has the potential to emit 242 tons per year of particulate matter and 12 tons per year of fluorides. It would be subject to the PSD NSR if it were itself a proposed new facility. The proposed construction of the DAP plant is considered a modification to a major facility. The modification will result in a significant net emission increase of fluoride and particulate matter. SO_2 emissions will not be significant because the DAP dryer will be fired only with natural gas.

As stated under existing facility description, the Ft. Meade Chemical Plant also has a rock drying operation. The allowable annual particulate matter emissions for this operation is 232 tons per year. USAC proposes to surrender the permits associated with the drying operation to obtain particulate matter emission credits to offset the increase due to the proposed project. USAC will agree to a condition in the DAP plant construction permit which revokes the drying operation permits to ensure that the particulate matter net emissions increase is less than significant. Table 3-5 provides a summary of the net emissions increases when offset is applied.

Table 3-5 Net Emissions Increase (tpy)			
Pollutant	Current	New Allowable	Net Increase
TSP	232	242	10
F	1.2	31.4	30.2

Therefore only a PSD NSR for fluoride is required.

PSD NSR requirements may include technology review, source impact analysis, air quality analysis, pre- and post construction ambient air monitoring, Good Engineering Practices (GEPs), stack height, and additional environmental impact analyses.

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.

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. Because the increase in fluorides is significant, fluoride impact analysis is required. Approved atmospheric dispersion models are required in performing the impact analysis. The analysis should demonstrate the project's compliance with AAQS (see Table 3-6) and allowable PSD increments (Table 3-2). It should be noted there is not an AAQS for fluorides and the PSD increments for fluorides does not exist. It should also be noted that Florida has a fluorides 24-hour "no threat level" of 6 $\mu g/m^3$ .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. De Minimus Ambient Impacts are found under Rule 62-212.400(3) and are presented here as Table 3-7.

Table 3-6
Ambient Air Quality Standards

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

Table 3-7 De Minimus Ambient Impacts		
Pollutant	$\mu g/m^3$	Period
CO	575	8 hour
NOx	14	NO_2, annual
SO_2	13	24 hour
TSP	10	24 hour
PM10	10	24 hour
Fluorides	0.25	24 hour
Vinyl Chloride	15	24 hour
Lead	0.1	quarterly
Mercury	0.25	24 hour
Beryllium	0.001	24 hour
Hydrogen Sulfide	0.2	1 hour
Ozone	No deminimus. Increase of 100 tpy VOC subject to NSR will require ambient impact analysis	

Impact analysis for fluorides due to the proposed project was conducted using the approved computer dispersion model ISC2 and Tampa 1986 meteorological data. The results showed a 24-hour ambient impact to be 0.7 $\mu g/m^3$, which is higher than the De Minimus impact level of 0.25 $\mu g/m^3$ (see Exhibit C). Therefore, additional impact analysis was performed by modeling fluorides emissions from the existing phosphoric acid plants as well as that from the proposed DAP plant. The results showed a highest 24-hour ambient impact to be 2.4 $\mu g/m^3$ and a highest annual impact of 0.3 $\mu g/m^3$ (see Exhibit D).

Although the 24-hour Deminimus level was exceeded, the 24-hour ambient impact of 2.4 $\mu g/m^3$ is well below the Florida "no threat level" of 6 $\mu g/m^3$.

Because the EPA has not approved an ambient monitor for fluorides, pre- and post construction ambient air monitoring can not be accomplished. Also, since there is not an AAQS for fluorides, the air quality analysis was conducted by approved computer air dispersion model.

The last pollutant which may requires ambient impact analysis is ammonia. As is the case with fluorides, ammonia has neither an AAQS nor a PSD increment. Therefore, the ambient impact analysis is conducted similar to fluorides analysis.

Impact analysis for ammonia due to the proposed project was conducted using computer dispersion model ISC2 and Tampa 1986 meteorological data.. The results showed a highest 24-hour ambient impact to be 1.3 $\mu g/m^3$ and a highest annual impact of 0.14 $\mu g/m^3$ (see Exhibit E). These are well below the Florida "no threat levels" of 40.8 $\mu g/m^3$ and 100 $\mu g/m^3$, respectively.

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:

   $Hg = H + 1.5 L$

   where:

   Hg - GEP stack height,

   H - Height of the structure or nearby structure, and

   L - Lesser dimension, height or projected width of nearby structure(s)
3. A height demonstrated by a model or field study.

The GEP stack height regulation requires that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height. In order to obtain the worst case results, the stack height used in the modeling wa 40 meters. The actual stack height may be higher or lower.

The PSD rules also require analysis 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 Class I areas if any is located within 100 kilometers of the proposed project. Impacts due to commercial, residential, industrial, and other growth associated with the source must be addressed.

The air quality modeling demonstrates that the level of fluoride expected at the Ft. Meade Chemical Plant, as a result of the proposed project, will exceed the de minimis impact level established by FDER. However, studies conducted by several fertilizer companies in the area in accordance with past FDER requirements had shown little or no effect on vegetation from airborne fluorides at even higher concentrations than those evaluated for this project. In the case of particulate matter, the net increase as a result of the proposed project is insignificant, therefore the de minimis level for particulates is not applicable.

The Ft. Meade Chemical plant property and the surrounding areas are comprised of mining lands (phosphate), flatwoods, marshes, and sloughs. The soils of the area are primarily sandy and are typically low in both clay and silt content. These characteristics and the semi-tropical climatic factors of high temperature and rainfall are the natural factors which determine the terrestrial communities of the region.

The land in the vicinity of Ft. Meade Chemical plant supports various plant communities. Much of the natural vegetation on the site and the surrounding areas has been altered due to mining and industrial use; there is very little undisturbed land in existence in the vicinity of the plant. As a

result, no adverse impacts from the proposed project are expected on the soils and vegetation in the vicinity of the facility.

The response of vegetation to air pollutants is influenced by the concentration of the pollutant, the duration of the exposure, and the frequency of the exposure. The pattern of exposure expected from a single facility is that of a few episodes of relatively high concentrations interdispersed with long periods of no exposure or extremely low concentrations. This is the pattern of exposure that would be expected from fluorides and particulate matter emissions.

As in the case of Class II area impacts, the fluoride emissions from the proposed project are not expected to have any adverse impacts on vegetation because the impacts are close to de minimis levels in the vicinity of the Ft. Meade Chemical plant and correspondingly insignificant at the Class I area located over 125 kilometers away.

In the previous section, the impact of the air emission increases on air quality related values in the vicinity of the proposed project was addressed. The increased emissions on air quality related values to the Chassahowitzka Class I PSD area is not applicable because it is more than 125 kilometers northwest of the plant.

Based upon the expected fluoride concentrations in the Ft. Meade Chemical area resulting from the increased emissions from the Ft. Meade Chemical plant, it is not expected that there will be any adverse impact on the native soils.

As the predicted fluoride levels are below those known to affect vegetation, the proposed project is not expected to have any impact on the wildlife in the Ft. Meade Chemical area.

The proposed modification will require the additional 50 persons to operate the facility. Also, there will be an increase in delivery truck tanker traffic, but this 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.

3.2 NON-ATTAINMENT AREA REVIEW

Because the facility is located in an area which is in attainment for all pollutants, and it is also located outside of the area of influent, non-attainment requirements do not apply. Therefore, non-attainment preconstruction review is omitted.

3.3 NOT SUBJECT TO PSD OR NON-ATTAINMENT REVIEW

Under Rule 62-296.400, Specific Emission Limiting and Performance Standards, the standards for a new source is the "Federal New Source Performance Standards" adopted in Rule 62-296.800, unless a different and more stringent standard is required by Rules 62-296.401 through 62-296.414. (A review of the Federal New Source Performance Standards will follow the FAC Rule review.)

FLUORIDES

A review of Rules 62-296.401 through 62-296.414 reveals that Rule 62-296.403, Phosphate Processing, listed a fluorides standards for various phosphate production and equipment (there is no standard for any other pollutants). For new plants, the fluorides standards (per ton of P_2O_5 input) are:

(a) Wet phosphoric Acid Production: 0.02 lbs.
(b) Run-of-Pile TSP belt and den: 0.05 lbs.
(c) Run-of-Pile TSP curing and storage: 0.12 lbs.
(d) GTSP: 1. GTSP by Run-of-Pile TSP: 0.06 lbs.
2. GTSP by Phosphoric Acid and Rock: 0.15 lbs.
(e) GTSP Storage: 0.05 lbs.
(f) DAP: 0.06 lbs.
(g) Calciner: 0.05 lbs.
(h) Rock Defluorinator: 0.37 lbs.
(i) All plants, sections, operations not listed above: BACT as determined pursuant to Rule 62-296.330.

Therefore, the fluorides standard for the proposed DAP plant is 0.06 lbs. per ton of P_2O_5 input. Since the P_2O_5 input rate is 69 tons per hour, the mass emissions standard is 0.06 x 69 = 4.14 lbs. per hour.

PARTICULATE MATTER AND VISIBLE EMISSIONS

Since Rules 62-296.401 through 62-296.414 do not set particulate matter and visible emission standards for the DAP plant, the General Particulate Emission Limiting Standard under Rule 62-296.310 applies.

Rule 62-296.310 sets standards for particulate matter and visible emissions. The particulate matter standard is determined by use of the equation:

$$E = 17.31\ P^{0.16}$$

where: E is emissions in lbs. per hour,
and P is process weight rate in tons per hour.

For the 150 tons per hour DAP plant, the particulate matter standard is 38.59 lbs. per hour.

Similarly, for the 300 tons per hour railcar loadout system, the particulate matter standard is 43.12 lbs. per hour.

According to Rule 62-296.310, the visible emissions standard for the DAP plant and the loadout system is 20% opacity.

Since the facility is located in Polk County, which is classified as attainment for all pollutants, and it is also located outside of the area of influence, RACT Rules do not apply.

3.4 EPA RULE REVIEW

Rule 62-296.800 adopted the EPA New Source Performance Standards (NSPS) codified under 40 C.F.R. 60.

The Regulation pertains to the DAP plant is found under Subpart V - Standard of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants. The standard for fluorides is 0.06 lbs per ton, which is identical to the Florida standard. There is no standard for any other pollutants.

The federal standards referenced are the New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR Parts 60 and 61, respectively. A review of NSPS was presented under paragraph 3.2, EPA Rule Review. The review of NESHAP shows no applicable standard for the proposed project.

The state standards referenced are those found in Chapter 62-296. They are: general standards, specific standards, RACT, NSPS, and NESHAP, and BACT. General standards are not applicable because there are specific standards for the proposed project. A review of the Specific Standards and RACT were presented under paragraph 3.1, FAC Rule Review. As mentioned above, NESHAP does not apply. Therefore, BACT is the last state Rule to be reviewed.

BACT is defined in Chapter 62-212, FAC as: "an emission limitation, including a visible emissions 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 standards(s) by means which achieve equivalent results."

Rule 62-212.410 specifies that the Department has the responsibility to make a determination of BACT. The Department is required to give consideration to the followings:

- BACT determination pursuant to the Clean Air Act, Section 169.

- The NSPS and the NESHAP emissions standards in 40 CFR 60 and 61. The BACT, as a minimum, has to comply with the applicable NSPS and NESHAP for the source.

- All scientific, engineering, and technical material and other information available.

- The emission standards or BACT determinations of any other state.

- The social and economic impact of the application of such technology.

EPA currently requires the "top-down" approach to BACT determination. The top-down approach requires identification of the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent control level is evaluated. This process continues until a control level cannot be eliminated by any substantial or unique technical , environmental or economic objections.

The emission standard propose by the applicant is:

- Fluorides: 0.06 lbs. per ton of P_2O_5 input.

The emissions standard selected by the applicant represents the fluorides emission limit imposed by NSPS and the BACT standard for fluoride applied by FDEP to two of the three most recently permitted DAP plants in Florida.

Appendix A

Supplemental Requirements

The following information includes process input rates, product weight, emissions estimates, control system efficiencies, control system critical operating parameters, and proposed methods to show proof of compliance. Most of the information is estimates provided by engineering consultants being considered for the construction project.

1. Process Input Rate and Product Weight

Input

Phosphoric Acid	138,300 lbs/hr as 100% P_2O_5
Ammonia	64,800 lbs/hr
Urea	3,321 lbs/hr

Product

Diammonium Phosphate	300,000 lbs

2. Estimated Air Pollution Discharged

DAP Plant

Fluorides	4.14 lbs/hr
Particulates	38.6 lbs/hr
Ammonia	5.25 lbs/hr

Loadout

Particulates	37.8 lbs/hr

The proposed methods to show compliance are:

Particulates	Method 5
Fluoride	Method 13b
Ammonia	Modified Method 5
Visible Emissions	Method 9

3. Potential Discharges

The potential discharges per AP42 Table 6.10.3-1 "Average Controlled Emission Factors for the Production of Ammonium Phosphates" are given as controlled emission factors:

AP42 Table 6.10.3-1 (excerpted)						
	Fluorides as F		Particulates		Ammonia	
Emission point	lb/ton Product	Factor Rating	lb/ton Product	Factor Rating	lb/ton Product	Factor Rating
Reactor/ammoniator granulator	0.05	E	1.52	E		
Dryer/cooler	0.04	E	1.50	E		
Product sizing and material transfer	0.002	E	0.06	E		
Total Plant Emissions	0.04	A	0.68	A	0.14	E

Since the DAP production rate is 150 tph, the emissions become:

Potential Emissions						
	Fluorides as F		Particulates		Ammonia	
Emission point	lbs/hr	Factor Rating	lbs/hr	Factor Rating	lbs/hr	Factor Rating
Reactor/ammoniator granulator	7.5	E	228	E		
Dryer/cooler	6	E	225	E		
Product sizing and material transfer	0.3	E	9	E		
Total Plant Emissions	6	A	102	A	21	E

4 & 5. Control Device Efficiencies and Critical Parameters

Production Rate	150	Tons DAP/hr							
		Into Control Device		Exiting Control Device			Critical Parameter		
Control Equipment	Pollutant	lbs/ton DAP	lbs/hr	lbs/ton DAP	lbs/hr	Efficiency	Liquid Flow (gpm)	Pressure Drop (" H2O)	Air Flow (cu.ft./min)
Equipment Cyclone	PM	84	12,600	25.2	3,780	70.0%			
Dryer Cyclone	PM	257.6	38,640	63	9,450	75.5%			
Cooler Cyclone	PM	67	10,050	20.1	3,015	70.0%			
Dryer Venturi Scrubber	PM	63	9,450	4.2	630	93.3%	1,000		
Ammonia Venturi Scrubber	Ammonia	85.6	12,840	34.5	5,175	59.7%	1,526		
Ammonia Venturi Scrubber	PM	66	9,900	9.6	1,440	85.5%	1,526		
RG Venturi Scrubber	Ammonia	34.5	5175	0.42	63	98.8%	5		
RG Venturi Scrubber	PM	9.6	1440	4	600	58.3%	876		
CE Venturi Scrubber	PM	45.3	6,795	2.7	405	94.0%	1,350		
RGCE Tailgas Scrubber	PM	6.7	1,005		23.16	97.7%	1,700	25	
RGCE Tailgas Scrubber	F	0.51	77	0.0178	3	96.5%	1,700	25	
Dryer Tailgas Scrubber	PM	4.2	630		15	97.5%	800	25	
Dryer Tailgas Scrubber	F	0.11	17	0.01	2	90.9%	800	25	
Baghouse	PM	2	600		37.8	93.7%		15	30,000

Note: Baghouse loading = 2 x production rate
Baghouse data: 512 bags x 0.375 x 10' each = 6032 sq.ft.
Air to cloth ratio = 4.97

```
CO STARTING
  TITLEONE U.S.AGRICHEMICALS DAP/MAP GRANULAR PLANT PM10 MODELING
  MODELOPT DFAULT RURAL CONC
  AVERTIME 24 PERIOD
  POLLUTID PM10
  RUNORNOT RUN
  ERRORFIL errors.out
CO FINISHED

SO STARTING
**       SRCID  SRCTYP X    Y    Z
  LOCATION DAP   POINT 0.0   0.0   0.0
  LOCATION LOAD  POINT -25   100   0.0
**            QS   HS    TS    VS    DS
  SRCPARAM DAP   4.87 40.26 321.9 15.59 2.135
  SRCPARAM LOAD  4.8  30.5  299.7 23.2  0.92
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE DISCPOLR DAP 50000 292
RE DISCPOLR LOAD 50000 292
RE FINISHED

ME STARTING
ME INPUTFIL C:\AIRMODEL\ISC2\TPAMET86.ASC
ME ANEMHGHT 10.0 FEET
ME SURFDATA 12842 1986 Tampa
ME UAIRDATA 12842 1986 Ruskin
ME DAYRANGE 1-365
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 10
OU FINISHED

************************************
*** SETUP Finishes Successfully ***
************************************
```

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates PERIOD Averages

**This Run Includes: 2 Source(s); 1 Source Group(s); and 2 Receptor(s)

**The Model Assumes A Pollutant Type of: PM10

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 3.05 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: DAPPM10X.INP ; **Output Print File: DAPPM10X.OUT
**Detailed Error/Message File: errors.out

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE X (METERS)	STACK Y (METERS)	STACK ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
DAP	0	0.48700E+01	0.0	0.0	0.0	40.26	321.90	15.59	2.13	NO	
LOAD	0	0.48000E+01	-25.0	100.0	0.0	30.50	299.70	23.20	0.92	NO	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DAP , LOAD ,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DISCRETE POLAR RECEPTORS ***
ORIGIN: (DIST, DIR, ZELEV, ZFLAG)
SRCID: (METERS,DEG,METERS,METERS)

DAP : (50000.0, 292.0, 0.0, 0.0); LOAD : (50000.0, 292.0, 0.0, 0.0);

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 111110
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\AIRMODEL\ISC2\TPAMET86.ASC FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1)
SURFACE STATION NO.: 12842 UPPER AIR STATION NO.: 12842
NAME: TAMPA NAME: RUSKIN
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
86	1	1	1	351.0	4.12	291.5	4	416.0	416.0
86	1	1	2	348.0	3.60	292.6	4	416.0	416.0
86	1	1	3	174.0	4.63	291.5	4	416.0	416.0
86	1	1	4	293.0	3.09	289.8	4	416.0	416.0
86	1	1	5	3.0	1.54	289.8	4	416.0	416.0
86	1	1	6	322.0	2.57	289.8	4	416.0	416.0
86	1	1	7	345.0	3.60	289.8	4	416.0	416.0
86	1	1	8	343.0	2.57	290.4	4	416.0	416.0
86	1	1	9	337.0	3.09	290.9	4	416.0	416.0
86	1	1	10	341.0	3.09	292.6	3	416.0	416.0
86	1	1	11	4.0	2.57	294.3	3	416.0	416.0
86	1	1	12	356.0	3.09	294.8	2	416.0	416.0
86	1	1	13	23.0	2.57	295.9	2	416.0	416.0
86	1	1	14	59.0	2.57	294.8	3	416.0	416.0
86	1	1	15	42.0	3.09	293.2	4	416.0	416.0
86	1	1	16	54.0	1.54	293.7	4	416.0	416.0
86	1	1	17	51.0	2.06	293.2	4	416.0	416.0
86	1	1	18	47.0	0.00	293.2	5	419.0	418.0
86	1	1	19	134.0	2.06	291.5	6	428.0	424.0
86	1	1	20	127.0	0.00	290.9	6	437.0	430.0
86	1	1	21	130.0	0.00	290.9	6	447.0	435.0
86	1	1	22	132.0	0.00	289.8	6	456.0	441.0
86	1	1	23	270.0	1.54	290.9	6	465.0	447.0
86	1	1	24	290.0	2.06	290.4	6	474.0	453.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , LOAD ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	ORIGIN CONC	SRCID	DIST (M)	DIR (DEG)	CONC
DAP :	50000.00	292.00	0.03391	LOAD :	50000.00	292.00	0.03379

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , LOAD ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC	(YYMMDDHH)
DAP :	50000.00	292.00	0.52383c	(86092724)	LOAD :	50000.00	292.00	0.52019c	(86092724)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , LOAD ,

*** DISCRETE POLAR RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

ORIGIN SRCID	DIST (M)	DIR (DEG)	CONC	ORIGIN (YYMMDDHH)	SRCID	DIST (M)	DIR (DEG)	CONC (YYMMDDHH)
DAP :	50000.00	292.00	0.47461c	(86061524)	LOAD :	50000.00	292.00	0.46890c (86061524)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE MAXIMUM 10 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): DAP , LOAD ,

** CONC OF PM10 IN MICROGRAMS/M**3 **

RANK	CONC (YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC (YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	0.52383c(86092724) AT	(-46359.20, 18730.33) DP	6.	0.38651c(86040424) AT	(-46384.20, 18830.33) DP
2.	0.52019c(86092724) AT	(-46384.20, 18830.33) DP	7.	0.29883c(86021724) AT	(-46384.20, 18830.33) DP
3.	0.47461c(86061524) AT	(-46359.20, 18730.33) DP	8.	0.29678c(86021724) AT	(-46359.20, 18730.33) DP
4.	0.46890c(86061524) AT	(-46384.20, 18830.33) DP	9.	0.29587c(86050124) AT	(-46359.20, 18730.33) DP
5.	0.39030c(86040424) AT	(-46359.20, 18730.33) DP	10.	0.28946c(86050124) AT	(-46384.20, 18830.33) DP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG) OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.03391 AT (-46359.20, 18730.33, 0.00, 0.00) DP
	2ND HIGHEST VALUE IS	0.03379 AT (-46384.20, 18830.33, 0.00, 0.00) DP
	3RD HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00)
	4TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00)
	5TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00)
	6TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00)

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.52383c	ON 86092724: AT (-46359.20, 18730.33, 0.00, 0.00)	DP
	HIGH 2ND HIGH VALUE IS	0.47461c	ON 86061524: AT (-46359.20, 18730.33, 0.00, 0.00)	DP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

---------- Summary of Total Messages ----------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 816 Informational Message(s)

A Total of 816 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

EXHIBIT B

U.S. AGRI-CHEMICALS

TSP MODELING OUTPUT

TSP IMPACT ON FT. MEADE CHEMICALS PLANT AREA DUE TO PROPOSED DAP PLANT

```
CO STARTING
  TITLEONE U.S.AGRICHEMICALS DAP/MAP GRANULAR PLANT PM10 MODELING
  MODELOPT DFAULT RURAL CONC
  AVERTIME 24 PERIOD
  POLLUTID PM10
  RUNORNOT RUN
  ERRORFIL errors.out
CO FINISHED

SO STARTING
**       SRCID  SRCTYP X    Y    Z
  LOCATION DAP   POINT 0.0   0.0   0.0
  LOCATION LOAD  POINT -25   100   0.0
**            QS   HS    TS    VS    DS
  SRCPARAM DAP   4.87 40.26 321.9 15.59 2.135
  SRCPARAM LOAD  4.8  30.5  299.7 23.2  0.92
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE GRIDPOLR POL1 STA
  GRIDPOLR POL1 ORIG 0.0 0.0
  GRIDPOLR POL1 DIST 250.0  500.0  750.0  1000.0  1500.0  2000.0
  GRIDPOLR POL1 GDIR 36 10 10
  GRIDPOLR POL1 END
RE FINISHED

ME STARTING
ME INPUTFIL C:\AIRMODEL\ISC2\TPAMET86.ASC
ME ANEMHGHT 10.0 FEET
ME SURFDATA 12842 1986 Tampa
ME UAIRDATA 12842 1986 Ruskin
ME DAYRANGE 1-365
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 10
OU FINISHED

************************************
*** SETUP Finishes Successfully ***
************************************
```

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates PERIOD Averages

**This Run Includes: 2 Source(s); 1 Source Group(s); and 216 Receptor(s)

**The Model Assumes A Pollutant Type of: PM10

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 3.05 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: DAPPM10.INP ; **Output Print File: DAPPM10.OUT
**Detailed Error/Message File: errors.out

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE ELEV. (METERS)	X (METERS)	Y (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
DAP	0	0.48700E+01	0.0	0.0	0.0	40.26	321.90	15.59	2.13	NO	
LOAD	0	0.48000E+01	-25.0	100.0	0.0	30.50	299.70	23.20	0.92	NO	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DAP , LOAD ,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

250.0, 500.0, 750.0, 1000.0, 1500.0, 2000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 111110
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\AIRMODEL\ISC2\TPAMET86.ASC FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1)
SURFACE STATION NO.: 12842 UPPER AIR STATION NO.: 12842
NAME: TAMPA NAME: RUSKIN
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
86	1	1	1	351.0	4.12	291.5	4	416.0	416.0
86	1	1	2	348.0	3.60	292.6	4	416.0	416.0
86	1	1	3	174.0	4.63	291.5	4	416.0	416.0
86	1	1	4	293.0	3.09	289.8	4	416.0	416.0
86	1	1	5	3.0	1.54	289.8	4	416.0	416.0
86	1	1	6	322.0	2.57	289.8	4	416.0	416.0
86	1	1	7	345.0	3.60	289.8	4	416.0	416.0
86	1	1	8	343.0	2.57	290.4	4	416.0	416.0
86	1	1	9	337.0	3.09	290.9	4	416.0	416.0
86	1	1	10	341.0	3.09	292.6	3	416.0	416.0
86	1	1	11	4.0	2.57	294.3	3	416.0	416.0
86	1	1	12	356.0	3.09	294.8	2	416.0	416.0
86	1	1	13	23.0	2.57	295.9	2	416.0	416.0
86	1	1	14	59.0	2.57	294.8	3	416.0	416.0
86	1	1	15	42.0	3.09	293.2	4	416.0	416.0
86	1	1	16	54.0	1.54	293.7	4	416.0	416.0
86	1	1	17	51.0	2.06	293.2	4	416.0	416.0
86	1	1	18	47.0	0.00	293.2	5	419.0	418.0
86	1	1	19	134.0	2.06	291.5	6	428.0	424.0
86	1	1	20	127.0	0.00	290.9	6	437.0	430.0
86	1	1	21	130.0	0.00	290.9	6	447.0	435.0
86	1	1	22	132.0	0.00	289.8	6	456.0	441.0
86	1	1	23	270.0	1.54	290.9	6	465.0	447.0
86	1	1	24	290.0	2.06	290.4	6	474.0	453.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , LOAD ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 250.00	500.00	750.00	1000.00	1500.00	2000.00
10.00	0.30676	1.45821	1.34765	1.14228	0.80003	0.60052
20.00	0.44240	1.57707	1.46018	1.22867	0.84114	0.61738
30.00	0.75980	1.68285	1.46767	1.23747	0.87333	0.65705
40.00	1.22561	2.00548	1.56807	1.24313	0.80788	0.58033
50.00	1.65547	2.54368	1.87832	1.42967	0.92347	0.67728
60.00	1.97836	3.03741	2.23472	1.65116	1.01119	0.71308
70.00	2.03984	3.38915	2.52333	1.85602	1.11473	0.76410
80.00	1.74825	3.43857	2.75891	2.06712	1.23652	0.83494
90.00	1.38909	2.94879	2.57649	2.02207	1.25801	0.86067
100.00	1.03223	2.26070	2.04076	1.65694	1.08821	0.77150
110.00	0.79365	1.62545	1.64971	1.43493	1.00961	0.74759
120.00	0.71579	1.19566	1.23181	1.12856	0.86617	0.68503
130.00	0.70379	1.04764	1.03766	0.94191	0.73515	0.59632
140.00	0.67490	1.02696	0.98729	0.87288	0.66554	0.53553
150.00	0.55956	0.89049	0.89491	0.80672	0.61618	0.48788
160.00	0.51989	0.71751	0.67784	0.59085	0.43588	0.33917
170.00	0.58601	0.82064	0.78043	0.67981	0.49878	0.38516
180.00	0.60491	0.85385	0.82116	0.72528	0.54717	0.43281
190.00	0.58098	0.83095	0.81014	0.73282	0.57901	0.47596
200.00	0.55029	0.82698	0.82499	0.75529	0.59315	0.47889
210.00	0.57997	0.97860	0.98050	0.88307	0.67623	0.53996
220.00	0.69588	1.22963	1.28670	1.24372	1.06147	0.90715
230.00	0.83030	1.70156	1.87141	1.77848	1.46494	1.23916
240.00	0.98131	2.07855	2.23692	2.13351	1.75211	1.46930
250.00	1.10910	2.42644	2.42758	2.15836	1.66616	1.37193
260.00	1.16966	2.35482	2.13132	1.85216	1.41826	1.17047
270.00	1.10873	2.21376	2.16337	1.97708	1.56065	1.28738
280.00	0.94196	2.28082	2.24593	2.00739	1.52332	1.21282
290.00	0.80367	2.12712	1.97226	1.74008	1.35510	1.11334
300.00	0.62920	2.19934	2.18825	1.99733	1.60564	1.33065
310.00	0.48495	2.34496	2.40435	2.18025	1.64758	1.29560
320.00	0.35748	1.98331	1.90727	1.65182	1.19649	0.91813
330.00	0.21289	1.46337	1.46731	1.31239	0.99231	0.78308
340.00	0.16457	1.13923	1.14705	1.03718	0.78575	0.61706
350.00	0.18412	1.14737	1.11163	0.97793	0.72279	0.56407
360.00	0.23528	1.34526	1.30378	1.13871	0.82596	0.63177

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , LOAD ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 250.00	500.00	750.00	1000.00	1500.00
10.0	5.34062c(86080224)	19.76977c(86080224)	14.75831 (86020624)	15.03834 (86020624)	11.35000 (86020624)
20.0	6.69941c(86090124)	27.60290c(86080224)	20.18216c(86080224)	15.86333c(86022124)	13.17965c(86022124)
30.0	10.28325c(86090724)	14.32566c(86080224)	13.56800c(86080224)	12.39420c(86072924)	12.40552c(86072924)
40.0	13.91359c(86071624)	14.76713c(86071824)	14.39187 (86030424)	15.32720 (86030424)	11.26882 (86030424)
50.0	15.91795c(86071624)	18.86626c(86100424)	16.31527 (86022724)	16.34462 (86022724)	11.39290 (86022724)
60.0	15.57401c(86071624)	22.06028c(86100424)	17.43806 (86072124)	13.57984 (86072124)	9.49487 (86022724)
70.0	15.93343c(86081824)	19.69177c(86060624)	16.36257 (86070224)	14.01034 (86070224)	9.98023 (86070224)
80.0	14.58844c(86050924)	22.99335c(86081824)	16.62108c(86060624)	11.44262c(86042924)	8.67265 (86070224)
90.0	12.62492c(86050924)	25.16724c(86081524)	22.25384c(86081524)	16.27160c(86081524)	9.50430c(86060724)
100.0	8.46620c(86082424)	18.21791c(86081724)	19.31194c(86060924)	17.73508c(86060924)	12.41165c(86060924)
110.0	10.16348c(86082424)	14.39945c(86081724)	15.17333c(86081624)	14.72327c(86081624)	11.49100c(86081624)
120.0	13.28905c(86052224)	13.89699c(86082424)	12.61799c(86012024)	13.82098c(86012024)	11.88872c(86012024)
130.0	15.36137c(86052224)	15.84461c(86071924)	13.09078c(86071924)	12.37072 (86012724)	10.11517 (86012724)
140.0	12.42548c(86052224)	16.48279c(86052224)	13.78281c(86061024)	11.71012c(86061024)	7.88060c(86061024)
150.0	9.37879c(86062624)	11.99325 (86061824)	11.75613 (86021224)	10.70876 (86021224)	8.30660c(86030124)
160.0	10.79049c(86062624)	10.02751c(86010524)	13.23287c(86010524)	13.50239c(86010524)	11.16078c(86010524)
170.0	10.27849c(86062624)	10.27120c(86021324)	10.69559c(86101524)	10.26774c(86101524)	8.14037c(86101524)
180.0	10.14897c(86021324)	12.60939c(86082424)	12.21419 (86103024)	13.09334 (86103024)	11.39476 (86103024)
190.0	10.11939c(86082424)	14.71437 (86032224)	14.19015 (86032224)	12.26034 (86032224)	8.78528 (86032224)
200.0	8.99715c(86032824)	10.71734 (86112124)	10.83718 (86120424)	11.53070 (86110224)	11.34511 (86110224)
210.0	11.01120 (86112124)	13.68645c(86032824)	11.44310c(86011224)	11.40913c(86102824)	9.98925c(86102824)
220.0	10.56516c(86032824)	16.71144c(86102024)	14.71175c(86102024)	17.68287c(86102724)	18.33905c(86102724)
230.0	12.06872c(86102024)	18.99856c(86102024)	22.55255 (86122724)	19.58650 (86122724)	15.59061 (86010824)
240.0	13.37605c(86102024)	18.40325c(86102024)	16.61389 (86120624)	15.46945 (86120624)	14.00528 (86111424)
250.0	12.75213c(86082324)	19.98528 (86033024)	18.10942 (86111424)	17.56818 (86010924)	12.47374 (86010924)
260.0	13.19217c(86082324)	22.37673 (86091724)	21.17797 (86091724)	17.34866 (86091724)	11.24569 (86091724)
270.0	11.65012c(86082324)	21.39871c(86070724)	17.23089c(86082324)	15.27237c(86082324)	11.24807c(86082324)
280.0	12.32491c(86070724)	23.32349c(86070724)	22.26586c(86040424)	19.49218c(86040424)	12.02507c(86040424)
290.0	12.16096c(86070724)	21.50878c(86070724)	17.34596 (86052724)	14.20189 (86052724)	10.50513c(86051524)
300.0	8.38353c(86082624)	23.30460c(86082624)	17.40170c(86082624)	17.26198 (86070524)	12.45080 (86070524)
310.0	9.17682c(86082624)	21.12501c(86101324)	18.28332 (86112424)	15.82400 (86031324)	13.31759 (86031324)
320.0	5.52010c(86070824)	16.53729c(86101324)	13.95706 (86031324)	14.16304 (86031324)	10.73394 (86031324)
330.0	2.62925 (86052824)	14.79985c(86112524)	15.44491c(86112524)	12.28406c(86112524)	10.60308 (86021024)
340.0	3.41624c(86092324)	13.66562c(86071324)	13.84602 (86082024)	15.45488 (86082024)	13.02003 (86082024)
350.0	4.11652 (86080624)	13.38849 (86050624)	11.17271c(86010124)	11.39335c(86010124)	9.81800 (86082024)
360.0	5.46736 (86080624)	11.91706c(86072524)	11.78521 (86113024)	12.09184c(86072924)	10.14676c(86072924)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL *** INCLUDING SOURCE(S): DAP , LOAD ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 2000.00
10.0	8.48308 (86020624)
20.0	10.07938c(86022124)
30.0	10.40464 (86070424)
40.0	7.93581 (86030424)
50.0	8.01451 (86022724)
60.0	8.11821 (86022724)
70.0	7.85684 (86070224)
80.0	7.46268 (86070224)
90.0	6.91912 (86040924)
100.0	9.01842c(86081824)
110.0	9.51920c(86081724)
120.0	9.70407c(86012024)
130.0	7.96160 (86012724)
140.0	5.51189c(86061024)
150.0	7.24992c(86030124)
160.0	8.96422c(86010524)
170.0	6.41787c(86101524)
180.0	9.42824 (86103024)
190.0	6.63874 (86011124)
200.0	9.95061 (86110224)
210.0	8.19326c(86102824)
220.0	16.16988c(86102724)
230.0	12.70050 (86010824)
240.0	11.74295 (86111424)
250.0	9.78228 (86091724)
260.0	7.92951 (86091724)
270.0	9.31492 (86110824)
280.0	10.23006c(86061424)
290.0	9.52709c(86121924)
300.0	9.72096c(86121924)
310.0	10.27424 (86031324)
320.0	8.25857c(86120124)
330.0	8.91358 (86021024)
340.0	10.30942 (86082024)
350.0	7.78035 (86082024)
360.0	7.99132 (86121124)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , LOAD ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 250.00	500.00	750.00	1000.00	1500.00
10.0	5.27427c(86072524)	15.64442c(86041224)	13.82029c(86031124)	11.00566c(86031124)	6.67977 (86021024)
20.0	6.05884c(86090724)	18.35034c(86082824)	14.18867 (86070424)	12.92260c(86080224)	9.70430c(86031124)
30.0	7.81999c(86071624)	13.34073c(86022224)	11.87124c(86061924)	10.64872 (86070424)	11.42397 (86070424)
40.0	10.55724c(86080724)	13.57458c(86090724)	11.82684c(86071824)	10.10654c(86012524)	8.05489c(86122424)
50.0	14.36491c(86080724)	18.06867c(86062024)	12.14662c(86100424)	12.42921 (86111824)	10.09258 (86111824)
60.0	14.77422c(86080724)	20.99315c(86062024)	17.30972c(86100424)	12.27478c(86100424)	8.05217 (86073124)
70.0	15.62349c(86080124)	18.86798c(86100424)	15.44897c(86100424)	13.18966 (86072124)	9.54810 (86072124)
80.0	14.08277 (86072024)	22.67918c(86081524)	15.80616c(86042924)	11.37185c(86060624)	7.98086c(86121724)
90.0	11.21017 (86072024)	22.11242 (86072024)	18.25251c(86060724)	14.87819c(86060724)	9.08670c(86042924)
100.0	8.37077c(86041124)	16.91021c(86050924)	17.04995c(86081724)	14.80315c(86081824)	12.13882c(86081824)
110.0	9.85428 (86042224)	13.70474c(86012024)	14.74917c(86081724)	13.84990c(86081724)	11.46124c(86081724)
120.0	11.82199c(86071924)	13.36161c(86071924)	12.41237c(86040224)	10.76137c(86040224)	8.37600 (86041624)
130.0	12.29098c(86071924)	15.26444c(86052224)	12.04419c(86061024)	10.73991c(86071924)	7.89079c(86071924)
140.0	10.99550c(86090324)	14.15919c(86061024)	13.00917c(86052224)	9.73587c(86052224)	6.32039 (86012724)
150.0	8.93371 (86061824)	11.23724 (86021224)	10.00145 (86061824)	9.47451c(86030124)	8.08342 (86021224)
160.0	7.03741 (86101624)	9.65913 (86021224)	9.52654 (86021224)	8.37919 (86021224)	6.20637 (86021224)
170.0	9.80531c(86021324)	10.05743c(86061024)	8.23767c(86021324)	7.22833 (86102924)	6.69811 (86102924)
180.0	9.09051c(86082424)	10.59849 (86032224)	11.62702c(86082424)	10.88069 (86032124)	8.55100 (86032124)
190.0	8.42585 (86032224)	13.54151 (86011124)	13.48814 (86011124)	11.94926 (86011124)	8.72161 (86011124)
200.0	8.10306 (86112124)	9.84807c(86032824)	9.34473 (86110224)	10.57432 (86120424)	8.94203 (86120424)
210.0	9.91267c(86032824)	11.46266 (86112124)	11.41288 (86110224)	11.02167 (86110224)	8.44046 (86103024)
220.0	9.97121c(86011224)	14.08636c(86011224)	14.49092 (86120524)	15.15305 (86120524)	16.06520 (86122724)
230.0	10.99743c(86011224)	15.11791 (86032924)	18.06602c(86102724)	18.56672c(86102724)	13.74821c(86102724)
240.0	11.32037c(86082324)	15.30155 (86010824)	16.48108 (86010824)	15.07875 (86111424)	10.58247 (86010824)
250.0	11.07389c(86102024)	18.44262c(86092124)	17.59169 (86033024)	15.83587 (86111424)	10.26574c(86041424)
260.0	9.84756c(86092124)	20.90512 (86091524)	17.89588 (86091524)	14.14823 (86091524)	9.13689c(86121724)
270.0	10.19568 (86091724)	19.59015 (86091524)	14.82088c(86070724)	13.43845 (86111024)	11.17084 (86111024)
280.0	11.03799 (86091724)	18.95422c(86082324)	17.76837c(86082324)	16.16679 (86110824)	12.00095 (86110724)
290.0	6.30602 (86081024)	19.88951 (86111124)	15.98191 (86111124)	13.28130c(86051524)	9.75510c(86121924)
300.0	8.09448c(86070724)	20.23801c(86080824)	17.33914 (86070524)	13.43905 (86092924)	10.76724c(86121924)
310.0	7.48289c(86070824)	19.69041c(86070824)	17.88743c(86101324)	15.71347 (86112424)	12.18443 (86031824)
320.0	5.24278c(86080824)	14.97943c(86100924)	13.30403c(86112524)	11.58540 (86061624)	9.24476c(86120124)
330.0	2.53479c(86061124)	13.86353 (86052824)	10.86748 (86052824)	11.96468 (86021024)	8.34885c(86090624)
340.0	3.04356 (86052824)	13.38428c(86100824)	11.09010c(86071324)	10.92351c(86010124)	8.74790c(86010124)
350.0	4.10863 (86050624)	12.42146c(86091124)	10.13750c(86072524)	11.34309 (86082024)	8.83109c(86010124)
360.0	4.03524c(86072524)	11.90413c(86063024)	10.40040c(86072924)	12.06603 (86113024)	10.02086 (86121124)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , LOAD ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 2000.00
10.0	5.52061c(86012924)
20.0	8.38796c(86031124)
30.0	10.14518c(86072924)
40.0	7.19809c(86122424)
50.0	7.65405c(86073024)
60.0	6.68368 (86111824)
70.0	7.74037c(86040824)
80.0	6.61482c(86100924)
90.0	6.49847c(86042924)
100.0	8.74863c(86060924)
110.0	9.43603c(86081624)
120.0	7.15038 (86041624)
130.0	6.43952c(86071924)
140.0	5.16620 (86012724)
150.0	6.84045c(86022324)
160.0	4.82222 (86021224)
170.0	5.78935 (86102924)
180.0	6.63540 (86032124)
190.0	6.61314 (86032224)
200.0	7.56895 (86103024)
210.0	6.65105 (86103024)
220.0	15.49998 (86122724)
230.0	10.16943c(86102724)
240.0	8.62606 (86010924)
250.0	8.80575 (86010924)
260.0	6.84419c(86121724)
270.0	8.85241 (86111024)
280.0	9.29773 (86110724)
290.0	9.04672 (86092524)
300.0	8.72018 (86070524)
310.0	9.70534 (86031824)
320.0	8.11296 (86031324)
330.0	7.80019c(86090624)
340.0	6.74841c(86010124)
350.0	6.73794c(86010124)
360.0	7.98058c(86072924)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE MAXIMUM 10 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): DAP , LOAD ,

** CONC OF PM10 IN MICROGRAMS/M**3 **

RANK	CONC (YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC (YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	27.60290c(86080224) AT (	171.01, 469.85) GP	6.	22.67918c(86081524) AT (	492.40, 86.82) GP
2.	25.16724c(86081524) AT (	500.00, 0.00) GP	7.	22.55255 (86122724) AT (	-574.53, -482.09) GP
3.	23.32349c(86070724) AT (	-492.40, 86.82) GP	8.	22.37673 (86091724) AT (	-492.40, -86.82) GP
4.	23.30460c(86082624) AT (	-433.01, 250.00) GP	9.	22.26586c(86040424) AT (	-738.61, 130.24) GP
5.	22.99335c(86081824) AT (	492.40, 86.82) GP	10.	22.25384c(86081524) AT (	750.00, 0.00) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	3.43857 AT (492.40, 86.82, 0.00, 0.00)	GP	POL1
	2ND HIGHEST VALUE IS	3.38915 AT (469.85, 171.01, 0.00, 0.00)	GP	POL1
	3RD HIGHEST VALUE IS	3.03741 AT (433.01, 250.00, 0.00, 0.00)	GP	POL1
	4TH HIGHEST VALUE IS	2.94879 AT (500.00, 0.00, 0.00, 0.00)	GP	POL1
	5TH HIGHEST VALUE IS	2.75891 AT (738.61, 130.24, 0.00, 0.00)	GP	POL1
	6TH HIGHEST VALUE IS	2.57649 AT (750.00, 0.00, 0.00, 0.00)	GP	POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	27.60290c	ON 86080224: AT (171.01, 469.85, 0.00, 0.00)	GP POL1
	HIGH 2ND HIGH VALUE IS	22.67918c	ON 86081524: AT (492.40, 86.82, 0.00, 0.00)	GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

——— Summary of Total Messages ———

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 816 Informational Message(s)

A Total of 816 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

EXHIBIT C

U.S. AGRI-CHEMICALS

FLUORIDES MODELING OUTPUT

IMPACT ON FT. MEADE CHEMICALS PLANT AREA DUE TO PROPOSED DAP PLANT

```
CO STARTING
  TITLEONE U.S.AGRICHEMICALS DAP/MAP GRANULAR PLANT FLUORIDE MODELING
  MODELOPT DFAULT RURAL CONC
  AVERTIME 24
  POLLUTID SO2
  RUNORNOT RUN
  ERRORFIL errors.out
CO FINISHED

SO STARTING
**      SRCID  SRCTYP X    Y    Z
  LOCATION DAP   POINT 0.0   0.0   0.0
**           QS    HS    TS    VS    DS
  SRCPARAM DAP   0.363 40.26 321.9 15.59 2.135
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE GRIDPOLR POL1 STA
  GRIDPOLR POL1 ORIG 0.0 0.0
  GRIDPOLR POL1 DIST 100.0  250.0  500.0  750.0  1000.0
  GRIDPOLR POL1 GDIR 36 10 10
  GRIDPOLR POL1 END
RE FINISHED

ME STARTING
ME INPUTFIL C:\AIRMODEL\ISC2\TPAMET86.ASC
ME ANEMHGHT 10.0 FEET
ME SURFDATA 12842 1986 Tampa
ME UAIRDATA 12842 1986 Ruskin
ME DAYRANGE 1-365
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 50
OU FINISHED

**************************************
*** SETUP Finishes Successfully ***
**************************************
```

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR

**This Run Includes: 1 Source(s); 1 Source Group(s); and 180 Receptor(s)

**The Model Assumes A Pollutant Type of: SO2

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 3.05 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: DAPFLX.INP ; **Output Print File: DAPFLX.OUT
**Detailed Error/Message File: errors.out

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
DAP	0	0.36300E+00	0.0	0.0	0.0	40.26	321.90	15.59	2.13	NO	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DAP ,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 250.0, 500.0, 750.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 11110
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\AIRMODEL\ISC2\TPAMET86.ASC FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1)
SURFACE STATION NO.: 12842 UPPER AIR STATION NO.: 12842
NAME: TAMPA NAME: RUSKIN
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
86	1	1	1	351.0	4.12	291.5	4	416.0	416.0
86	1	1	2	348.0	3.60	292.6	4	416.0	416.0
86	1	1	3	174.0	4.63	291.5	4	416.0	416.0
86	1	1	4	293.0	3.09	289.8	4	416.0	416.0
86	1	1	5	3.0	1.54	289.8	4	416.0	416.0
86	1	1	6	322.0	2.57	289.8	4	416.0	416.0
86	1	1	7	345.0	3.60	289.8	4	416.0	416.0
86	1	1	8	343.0	2.57	290.4	4	416.0	416.0
86	1	1	9	337.0	3.09	290.9	4	416.0	416.0
86	1	1	10	341.0	3.09	292.6	3	416.0	416.0
86	1	1	11	4.0	2.57	294.3	3	416.0	416.0
86	1	1	12	356.0	3.09	294.8	2	416.0	416.0
86	1	1	13	23.0	2.57	295.9	2	416.0	416.0
86	1	1	14	59.0	2.57	294.8	3	416.0	416.0
86	1	1	15	42.0	3.09	293.2	4	416.0	416.0
86	1	1	16	54.0	1.54	293.7	4	416.0	416.0
86	1	1	17	51.0	2.06	293.2	4	416.0	416.0
86	1	1	18	47.0	0.00	293.2	5	419.0	418.0
86	1	1	19	134.0	2.06	291.5	6	428.0	424.0
86	1	1	20	127.0	0.00	290.9	6	437.0	430.0
86	1	1	21	130.0	0.00	290.9	6	447.0	435.0
86	1	1	22	132.0	0.00	289.8	6	456.0	441.0
86	1	1	23	270.0	1.54	290.9	6	465.0	447.0
86	1	1	24	290.0	2.06	290.4	6	474.0	453.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.0	0.00015c(86080824)	0.16039 (86080624)	0.36307c(86080224)	0.29612c(86041224)	0.24615c(86041224)
20.0	0.00009 (86073124)	0.19672c(86080224)	0.68763c(86080224)	0.54119c(86080224)	0.37251c(86080224)
30.0	0.00014c(86060724)	0.18729c(86090124)	0.61126c(86080224)	0.53952c(86080224)	0.40065c(86080224)
40.0	0.00014c(86060724)	0.22083c(86090724)	0.31554c(86071824)	0.32524c(86071824)	0.24855c(86071824)
50.0	0.00024c(86080124)	0.28062c(86090724)	0.42544c(86090724)	0.31292c(86071824)	0.26093 (86022724)
60.0	0.00030c(86071624)	0.36334c(86071624)	0.51201c(86100424)	0.51272c(86100424)	0.39801c(86100424)
70.0	0.00030c(86071624)	0.36767c(86071624)	0.58007c(86100424)	0.51585c(86100424)	0.41931 (86072124)
80.0	0.00021c(86080124)	0.28228c(86080724)	0.57335c(86100524)	0.44364c(86060624)	0.35575 (86070224)
90.0	0.00039c(86080124)	0.33272c(86080124)	0.69857c(86081824)	0.58238c(86081524)	0.46120c(86060724)
100.0	0.00036c(86080124)	0.28111c(86080124)	0.57182 (86072024)	0.59635c(86081524)	0.50638c(86081524)
110.0	0.00014c(86080124)	0.13458c(86080124)	0.38588c(86050924)	0.38348c(86081724)	0.34016c(86081724)
120.0	0.00002c(86080124)	0.06973c(86072424)	0.30641c(86082424)	0.28279c(86082424)	0.31345c(86012024)
130.0	0.00001c(86071424)	0.08554c(86071924)	0.36438c(86071924)	0.37806c(86071924)	0.33533c(86071924)
140.0	0.00002c(86061124)	0.10262c(86071924)	0.44042c(86052224)	0.40702c(86052224)	0.38751c(86061024)
150.0	0.00002c(86061124)	0.09687c(86061124)	0.29676c(86090324)	0.28778 (86061824)	0.24717 (86061824)
160.0	0.00003c(86062624)	0.11652c(86062624)	0.28710c(86062624)	0.19643 (86061824)	0.24591c(86010524)
170.0	0.00003c(86062624)	0.09645c(86062624)	0.25620c(86062624)	0.24092c(86061024)	0.23553c(86101524)
180.0	0.00001 (86060124)	0.07214c(86082424)	0.33275c(86082424)	0.31598c(86082424)	0.26346c(86082424)
190.0	0.00001 (86060124)	0.06646c(86082424)	0.24980c(86032824)	0.25663 (86011124)	0.29754 (86011124)
200.0	0.00003c(86090824)	0.08084c(86052224)	0.29962 (86112124)	0.28351 (86112124)	0.22769 (86112124)
210.0	0.00006c(86082324)	0.10561c(86082324)	0.28537c(86032824)	0.34450c(86011224)	0.31949c(86011224)
220.0	0.00019c(86082324)	0.22463c(86082324)	0.37713c(86102024)	0.43931c(86102024)	0.36488c(86102024)
230.0	0.00023c(86082324)	0.27400c(86082324)	0.35587 (86091924)	0.40086c(86102024)	0.40169 (86010824)
240.0	0.00013c(86082324)	0.22762c(86082324)	0.42005c(86082324)	0.46589c(86092124)	0.42478c(86092124)
250.0	0.00010c(86082224)	0.14763c(86082324)	0.56957 (86091724)	0.55556 (86091724)	0.46692 (86091724)
260.0	0.00013c(86082224)	0.15676c(86090424)	0.57660c(86070724)	0.50673 (86091524)	0.42102 (86091524)
270.0	0.00007c(86082224)	0.15496c(86070724)	0.61480c(86070724)	0.54713c(86082324)	0.52383c(86082324)
280.0	0.00012c(86082624)	0.19053c(86082624)	0.55297c(86070724)	0.47561c(86070724)	0.40121c(86040424)
290.0	0.00019c(86082624)	0.27911c(86082624)	0.57216c(86082624)	0.39517c(86082624)	0.31916c(86051524)
300.0	0.00014c(86082624)	0.23165c(86082624)	0.61575c(86082624)	0.50462c(86082624)	0.41657 (86092924)
310.0	0.00009c(86082524)	0.14966c(86082524)	0.45783c(86101324)	0.46943c(86101324)	0.41708 (86031824)
320.0	0.00004c(86082524)	0.10152c(86082524)	0.28913 (86092924)	0.32717c(86112524)	0.29878c(86112524)
330.0	0.00006c(86061124)	0.12357 (86052824)	0.38899 (86052824)	0.32931 (86052824)	0.28614c(86112524)
340.0	0.00005c(86061124)	0.12260c(86092324)	0.28131c(86100824)	0.28406c(86100824)	0.24832 (86082024)
350.0	0.00009 (86080624)	0.14302 (86050624)	0.34413 (86050624)	0.23735 (86050624)	0.19859c(86010124)
360.0	0.00016 (86080624)	0.19019 (86080624)	0.27073c(86091124)	0.23748c(86072524)	0.24244c(86072924)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.0	0.00012 (86080624)	0.12680c(86072524)	0.35971c(86063024)	0.27347c(86063024)	0.23932 (86020624)
20.0	0.00009c(86080824)	0.12715c(86072524)	0.43353c(86082824)	0.34439c(86082824)	0.28099 (86111724)
30.0	0.00009c(86090124)	0.14945c(86080224)	0.41203c(86082824)	0.32125c(86082824)	0.33150c(86072924)
40.0	0.00014c(86090724)	0.20839c(86090124)	0.30059c(86090724)	0.28455c(86061924)	0.24096c(86061924)
50.0	0.00018c(86090724)	0.21735c(86071624)	0.36317c(86071824)	0.23568 (86010424)	0.22256c(86071824)
60.0	0.00027c(86080124)	0.24213c(86080724)	0.47546c(86071424)	0.38009c(86062024)	0.31171 (86022724)
70.0	0.00022c(86080724)	0.29365c(86080724)	0.57108c(86071524)	0.48001 (86072124)	0.36934c(86100424)
80.0	0.00015c(86080724)	0.24357c(86071624)	0.53270c(86060624)	0.44269c(86100524)	0.33738c(86042924)
90.0	0.00011c(86071324)	0.24619c(86071324)	0.65618c(86100524)	0.57914c(86081824)	0.45641c(86081524)
100.0	0.00008c(86071324)	0.19667c(86071324)	0.56379c(86081524)	0.50257c(86060924)	0.47552c(86060924)
110.0	0.00003c(86062424)	0.12800c(86072424)	0.34686c(86081724)	0.35511 (86041624)	0.32363 (86041624)
120.0	0.00001c(86072424)	0.05667 (86073124)	0.23139c(86071924)	0.26664c(86040224)	0.27068c(86040224)
130.0	0.00001c(86061124)	0.06556c(86052224)	0.36144c(86052224)	0.35374c(86082424)	0.29747c(86082424)
140.0	0.00002c(86071424)	0.09217c(86090324)	0.39337c(86071924)	0.40524c(86061024)	0.30665c(86071924)
150.0	0.00002c(86062624)	0.07713c(86062624)	0.26814c(86052224)	0.25649c(86090324)	0.21913c(86050324)
160.0	0.00001c(86061124)	0.05447c(86061124)	0.16894 (86061824)	0.19240c(86062624)	0.16897 (86021224)
170.0	0.00001 (86060124)	0.04881c(86082424)	0.21845c(86061024)	0.21765c(86021324)	0.19882c(86061024)
180.0	0.00001c(86062624)	0.06640 (86060124)	0.15259c(86032824)	0.22570 (86032224)	0.25899 (86032224)
190.0	0.00001c(86090824)	0.05934c(86032824)	0.24622c(86082424)	0.20622 (86032224)	0.22944 (86032224)
200.0	0.00001c(86052224)	0.06911c(86090824)	0.26483c(86032824)	0.26238c(86032824)	0.22754c(86032824)
210.0	0.00005c(86090824)	0.10121c(86062724)	0.26541c(86102024)	0.32605c(86102024)	0.27028c(86102024)
220.0	0.00010c(86062724)	0.15115c(86062724)	0.28312 (86032924)	0.32468 (86032924)	0.31316 (86120524)
230.0	0.00012c(86062724)	0.15126c(86062724)	0.33304c(86082324)	0.34194 (86091924)	0.37625c(86102024)
240.0	0.00007c(86062724)	0.11342c(86062724)	0.41457c(86092124)	0.43647 (86033024)	0.40187 (86033024)
250.0	0.00006c(86090124)	0.14106c(86043024)	0.49327 (86091524)	0.49422c(86092824)	0.40962c(86092824)
260.0	0.00005c(86090124)	0.15611c(86070724)	0.50279 (86091524)	0.44504c(86070724)	0.33629 (86091724)
270.0	0.00003c(86082524)	0.10525 (86081024)	0.45401c(86082324)	0.48466c(86070724)	0.38160c(86040424)
280.0	0.00006c(86082524)	0.13531c(86070724)	0.46885 (86111124)	0.44402c(86040424)	0.34626c(86070724)
290.0	0.00009c(86083124)	0.17717c(86080824)	0.51081c(86080824)	0.39333c(86080824)	0.31230 (86052724)
300.0	0.00011c(86082524)	0.21404c(86080824)	0.54571c(86080824)	0.49207 (86092924)	0.36960c(86082624)
310.0	0.00006c(86080824)	0.14597c(86080824)	0.39136 (86092924)	0.45879 (86112424)	0.41051 (86031324)
320.0	0.00003c(86062224)	0.07722c(86062224)	0.27853c(86101324)	0.30185c(86101324)	0.26266 (86081224)
330.0	0.00003c(86082624)	0.10889c(86061124)	0.28356c(86100824)	0.32868c(86112524)	0.24264 (86052824)
340.0	0.00004c(86092324)	0.09906 (86050624)	0.27371c(86051224)	0.25507c(86071324)	0.21900c(86100824)
350.0	0.00006c(86082224)	0.12760c(86092324)	0.31363c(86091124)	0.22194c(86091124)	0.19678c(86072524)
360.0	0.00012c(86080824)	0.10637c(86072524)	0.25175c(86063024)	0.23286 (86051924)	0.21767 (86113024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***

INCLUDING SOURCE(S): DAP ,

** CONC OF SO2 IN MICROGRAMS/M**3 **

RANK	CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE	RANK	CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE
1.	0.69857c(86081824) AT (500.00, 0.00) GP	26.	0.54571c(86080824) AT (-433.01, 250.00) GP
2.	0.68763c(86080224) AT (171.01, 469.85) GP	27.	0.54119c(86080224) AT (256.52, 704.77) GP
3.	0.65618c(86100524) AT (500.00, 0.00) GP	28.	0.53952c(86080224) AT (375.00, 649.52) GP
4.	0.61575c(86082624) AT (-433.01, 250.00) GP	29.	0.53907c(86060624) AT (500.00, 0.00) GP
5.	0.61480c(86070724) AT (-500.00, 0.00) GP	30.	0.53270c(86060624) AT (492.40, 86.82) GP
6.	0.61459 (86072024) AT (500.00, 0.00) GP	31.	0.52383c(86082324) AT (-1000.00, 0.00) GP
7.	0.61126c(86080224) AT (250.00, 433.01) GP	32.	0.52343c(86070824) AT (-433.01, 250.00) GP
8.	0.60159c(86081524) AT (500.00, 0.00) GP	33.	0.52116c(86100524) AT (750.00, 0.00) GP
9.	0.59635c(86081524) AT (738.61, -130.24) GP	34.	0.51585c(86100424) AT (704.77, 256.52) GP
10.	0.58238c(86081524) AT (750.00, 0.00) GP	35.	0.51533c(86060624) AT (750.00, 0.00) GP
11.	0.58007c(86100424) AT (469.85, 171.01) GP	36.	0.51533c(86060724) AT (492.40, -86.82) GP
12.	0.57914c(86081824) AT (750.00, 0.00) GP	37.	0.51272c(86100424) AT (649.52, 375.00) GP
13.	0.57660c(86070724) AT (-492.40, -86.82) GP	38.	0.51201c(86100424) AT (433.01, 250.00) GP
14.	0.57602c(86060724) AT (500.00, 0.00) GP	39.	0.51081c(86080824) AT (-469.85, 171.01) GP
15.	0.57335c(86100524) AT (492.40, 86.82) GP	40.	0.50824c(86062024) AT (469.85, 171.01) GP
16.	0.57216c(86082624) AT (-469.85, 171.01) GP	41.	0.50783c(86042524) AT (469.85, 171.01) GP
17.	0.57182 (86072024) AT (492.40, -86.82) GP	42.	0.50673 (86091524) AT (-738.61, -130.24) GP
18.	0.57108c(86071524) AT (469.85, 171.01) GP	43.	0.50638c(86081524) AT (984.81, -173.65) GP
19.	0.56957 (86091724) AT (-469.85, -171.01) GP	44.	0.50462c(86082624) AT (-649.52, 375.00) GP
20.	0.56679c(86060724) AT (750.00, 0.00) GP	45.	0.50279 (86091524) AT (-492.40, -86.82) GP
21.	0.56379c(86081524) AT (492.40, -86.82) GP	46.	0.50257c(86060924) AT (738.61, -130.24) GP
22.	0.55556 (86091724) AT (-704.77, -256.52) GP	47.	0.50132c(86050924) AT (492.40, -86.82) GP
23.	0.55391 (86072024) AT (750.00, 0.00) GP	48.	0.50092c(86071624) AT (492.40, 86.82) GP
24.	0.55297c(86070724) AT (-492.40, 86.82) GP	49.	0.49444c(86081824) AT (492.40, 86.82) GP
25.	0.54713c(86082324) AT (-750.00, 0.00) GP	50.	0.49422c(86092824) AT (-704.77, -256.52) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.69857c	ON 86081824: AT (500.00, 0.00, 0.00, 0.00)	GP POL1
	HIGH 2ND HIGH VALUE IS	0.65618c	ON 86100524: AT (500.00, 0.00, 0.00, 0.00)	GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

---- Summary of Total Messages ----

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 816 Informational Message(s)

A Total of 816 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

EXHIBIT D

U.S. AGRI-CHEMICALS

FLUORIDES MODELING OUTPUT

IMPACT ON FT. MEADE CHEMICALS PLANT AREA DUE TO PROPOSED DAP PLANT AND EXISTING PHOSPHORIC ACID PLANTS

```
CO STARTING
  TITLEONE U.S.AGRICHEMICALS DAP/MAP GRANULAR PLANT FLUORIDE MODELING
  MODELOPT DFAULT RURAL CONC
  AVERTIME 24 PERIOD
  POLLUTID SO2
  RUNORNOT RUN
  ERRORFIL errors.out
CO FINISHED

SO STARTING
**       SRCID  SRCTYP X     Y    Z
  LOCATION DAP   POINT 0.0   0.0   0.0
  LOCATION PADA  POINT 182.9  121.9 0.0
  LOCATION PADB  POINT 182.9  175.3 0.0
**            QS    HS    TS    VS    DS
  SRCPARAM DAP   0.522 40.26 321.9 15.59 2.135
  SRCPARAM PADA  0.111 25.9  316.3 12.22 0.76
  SRCPARAM PADB  0.111 25.9  316.3 12.22 0.76
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE GRIDPOLR POL1 STA
  GRIDPOLR POL1 ORIG 0.0 0.0
  GRIDPOLR POL1 DIST 100.0  250.0  500.0  750.0  1000.0
  GRIDPOLR POL1 GDIR 36 10 10
  GRIDPOLR POL1 END
RE FINISHED

ME STARTING
ME INPUTFIL C:\AIRMODEL\ISC2\TPAMET86.ASC
ME ANEMHGHT 10.0 FEET
ME SURFDATA 12842 1986 Tampa
ME UAIRDATA 12842 1986 Ruskin
ME DAYRANGE 1-365
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 50
OU FINISHED

**********************************
*** SETUP Finishes Successfully ***
**********************************
```

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates PERIOD Averages

**This Run Includes: 3 Source(s); 1 Source Group(s); and 180 Receptor(s)

**The Model Assumes A Pollutant Type of: SO2

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 3.05 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: dapfl6.inp ; **Output Print File: dapfl6.out
**Detailed Error/Message File: errors.out

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE ELEV. (METERS)	X (METERS)	Y (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
DAP	0	0.52200E+00	0.0	0.0	0.0	40.26	321.90	15.59	2.13	NO	
PADA	0	0.11100E+00	182.9	121.9	0.0	25.90	316.30	12.22	0.76	NO	
PADB	0	0.11100E+00	182.9	175.3	0.0	25.90	316.30	12.22	0.76	NO	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DAP , PADA , PADB ,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 250.0, 500.0, 750.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 111110

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\AIRMODEL\ISC2\TPAMET86.ASC FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1)
SURFACE STATION NO.: 12842 UPPER AIR STATION NO.: 12842
NAME: TAMPA NAME: RUSKIN
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
86	1	1	1	351.0	4.12	291.5	4	416.0	416.0
86	1	1	2	348.0	3.60	292.6	4	416.0	416.0
86	1	1	3	174.0	4.63	291.5	4	416.0	416.0
86	1	1	4	293.0	3.09	289.8	4	416.0	416.0
86	1	1	5	3.0	1.54	289.8	4	416.0	416.0
86	1	1	6	322.0	2.57	289.8	4	416.0	416.0
86	1	1	7	345.0	3.60	289.8	4	416.0	416.0
86	1	1	8	343.0	2.57	290.4	4	416.0	416.0
86	1	1	9	337.0	3.09	290.9	4	416.0	416.0
86	1	1	10	341.0	3.09	292.6	3	416.0	416.0
86	1	1	11	4.0	2.57	294.3	3	416.0	416.0
86	1	1	12	356.0	3.09	294.8	2	416.0	416.0
86	1	1	13	23.0	2.57	295.9	2	416.0	416.0
86	1	1	14	59.0	2.57	294.8	3	416.0	416.0
86	1	1	15	42.0	3.09	293.2	4	416.0	416.0
86	1	1	16	54.0	1.54	293.7	4	416.0	416.0
86	1	1	17	51.0	2.06	293.2	4	416.0	416.0
86	1	1	18	47.0	0.00	293.2	5	419.0	418.0
86	1	1	19	134.0	2.06	291.5	6	428.0	424.0
86	1	1	20	127.0	0.00	290.9	6	437.0	430.0
86	1	1	21	130.0	0.00	290.9	6	447.0	435.0
86	1	1	22	132.0	0.00	289.8	6	456.0	441.0
86	1	1	23	270.0	1.54	290.9	6	465.0	447.0
86	1	1	24	290.0	2.06	290.4	6	474.0	453.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , PADA , PADB ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.00	0.09500	0.10033	0.12078	0.11717	0.09613
20.00	0.07726	0.04960	0.13926	0.12205	0.09689
30.00	0.06067	0.01858	0.14873	0.13801	0.11042
40.00	0.04793	0.01402	0.16550	0.14311	0.10455
50.00	0.03999	0.01852	0.21318	0.16725	0.12079
60.00	0.03641	0.02487	0.30162	0.21167	0.14281
70.00	0.03654	0.03115	0.34404	0.24994	0.16750
80.00	0.03906	0.04085	0.29806	0.25985	0.18501
90.00	0.04293	0.05195	0.23466	0.22595	0.17334
100.00	0.04769	0.05709	0.17096	0.17761	0.14416
110.00	0.05291	0.06083	0.12961	0.12818	0.11141
120.00	0.05829	0.06466	0.10588	0.09636	0.08562
130.00	0.06386	0.06735	0.08068	0.08784	0.07343
140.00	0.06957	0.06779	0.07687	0.06994	0.06535
150.00	0.07547	0.06552	0.07713	0.06454	0.05427
160.00	0.08183	0.06408	0.07034	0.06162	0.04928
170.00	0.08926	0.06891	0.07069	0.06266	0.05378
180.00	0.09843	0.07556	0.07022	0.06243	0.05520
190.00	0.10918	0.08265	0.07427	0.06414	0.05490
200.00	0.12044	0.09935	0.08086	0.06818	0.05829
210.00	0.13133	0.12452	0.11075	0.08915	0.07283
220.00	0.14159	0.14251	0.14493	0.12847	0.11262
230.00	0.15141	0.15729	0.16539	0.15051	0.13323
240.00	0.16071	0.17497	0.19227	0.17733	0.15712
250.00	0.16861	0.18507	0.19401	0.17011	0.14585
260.00	0.17359	0.18176	0.17993	0.15368	0.13019
270.00	0.17470	0.17274	0.17663	0.15765	0.13753
280.00	0.17286	0.16704	0.18248	0.16543	0.14166
290.00	0.16932	0.17107	0.19500	0.15956	0.12692
300.00	0.16473	0.17825	0.18498	0.15528	0.13344
310.00	0.15939	0.17578	0.17707	0.16124	0.14610
320.00	0.15350	0.16574	0.17682	0.16948	0.14269
330.00	0.14646	0.15827	0.19246	0.15113	0.11042
340.00	0.13742	0.15674	0.17823	0.12274	0.09547
350.00	0.12574	0.15428	0.15337	0.10857	0.08278
360.00	0.11150	0.13795	0.13433	0.10451	0.08421

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , PADA , PADB ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.0	1.00187c(86082324)	1.14469c(86070824)	1.05950c(86010124)	1.07098c(86022124)	0.87804c(86072924)
20.0	0.88773c(86082324)	0.48152c(86080824)	1.34554c(86072524)	1.06840c(86080224)	1.16344 (86020624)
30.0	0.79171c(86082324)	0.30235c(86090124)	2.04937c(86080224)	1.68767c(86080224)	1.36463c(86022124)
40.0	0.73164c(86082324)	0.31755c(86090724)	1.80594c(86080224)	1.18909c(86061924)	1.07796c(86021824)
50.0	0.69657c(86082324)	0.40354c(86090724)	1.70786c(86071824)	1.12383 (86022724)	1.08708 (86022724)
60.0	0.65026c(86082324)	0.52249c(86071624)	2.41037c(86100424)	1.77239c(86100424)	1.15108 (86022724)
70.0	0.57426c(86082324)	0.52872c(86071624)	1.94171c(86071524)	1.53563c(86100424)	1.20089 (86070224)
80.0	0.54110c(86102024)	0.41181c(86080124)	1.93780c(86081524)	1.50398c(86081524)	1.02549c(86042924)
90.0	0.58712c(86042324)	0.65164c(86062624)	1.39755c(86081524)	1.66770c(86081524)	1.39118c(86081524)
100.0	0.70443 (86112124)	0.87074c(86062624)	1.51801c(86071924)	1.51989c(86081724)	1.24473c(86081724)
110.0	0.79768 (86112124)	0.89234c(86062624)	1.39375c(86071924)	1.19019c(86081724)	1.02877c(86081724)
120.0	0.84411 (86112124)	0.87501c(86021324)	0.90598 (86061824)	0.95106c(86061024)	0.79177 (86012724)
130.0	0.91664c(86011224)	0.95987c(86082424)	0.92435 (86021224)	0.85271c(86052224)	0.74142c(86071924)
140.0	1.03565c(86011224)	0.94810 (86032224)	0.94072c(86061024)	0.89649c(86010524)	0.68192c(86061024)
150.0	1.13872c(86102024)	0.97484 (86011124)	0.90653 (86103024)	0.61549c(86061024)	0.68646c(86010524)
160.0	1.30091c(86102024)	0.74599 (86011124)	0.90793 (86032224)	1.03261 (86103024)	0.59216c(86101524)
170.0	1.43619c(86102024)	0.85453c(86032824)	0.90316 (86032224)	0.85812 (86032224)	0.70377 (86103024)
180.0	1.52849c(86102024)	0.91383c(86032824)	0.87049 (86110224)	0.87644 (86011124)	0.84961 (86032224)
190.0	1.57914c(86102024)	1.02404c(86011224)	1.22827 (86110224)	1.08223 (86110224)	0.80250 (86110224)
200.0	1.60275c(86102024)	1.11135c(86102024)	0.92049c(86102824)	0.80389 (86110224)	0.88912 (86110224)
210.0	1.61190c(86102024)	1.62142 (86122724)	1.48352c(86102724)	1.20605c(86102724)	0.95648c(86102724)
220.0	1.59900c(86102024)	1.54232 (86122724)	1.81993 (86122724)	1.77616 (86122724)	1.71390 (86122724)
230.0	1.53420c(86102024)	1.42417c(86102024)	1.37586c(86102024)	1.36578 (86010824)	1.36533 (86010824)
240.0	1.40421c(86102024)	1.22820c(86102024)	1.33141c(86092124)	1.24210 (86111424)	1.29560 (86111424)
250.0	1.28089 (86033024)	1.34246 (86033024)	1.41404 (86091524)	1.23457 (86091724)	1.07935 (86091724)
260.0	1.36718 (86033024)	1.24863c(86092824)	1.70651 (86091724)	1.39145 (86091724)	1.07734 (86091724)
270.0	1.36618 (86033024)	1.48424 (86091724)	1.29775c(86070724)	1.13669c(86082324)	1.04374c(86082324)
280.0	1.31826c(86092824)	1.35877 (86091724)	1.30676c(86070724)	1.26522c(86040424)	1.16517c(86040424)
290.0	1.37674 (86091724)	1.21552c(86082324)	1.30449c(86082324)	1.09045 (86110724)	0.86377 (86110724)
300.0	1.47382 (86091724)	1.56749c(86082324)	1.20354 (86052724)	1.09505 (86052724)	0.84774 (86092924)
310.0	1.49815 (86091724)	1.49997c(86082324)	1.25743 (86052724)	1.01956 (86112424)	0.90350c(86102424)
320.0	1.47060 (86091724)	1.42839c(86070724)	1.25631 (86092924)	0.98997 (86092924)	0.92435 (86031324)
330.0	1.40714 (86091724)	1.44065c(86070724)	1.24785c(86082624)	1.18376c(86112524)	0.85094c(86112524)
340.0	1.34465c(86070724)	1.51474c(86082624)	1.23970c(86051224)	0.82772 (86112624)	0.67246 (86112624)
350.0	1.28899c(86070724)	1.77010c(86082624)	1.00414c(86080324)	0.83258 (86021024)	0.91353 (86082024)
360.0	1.16028c(86070724)	1.55740c(86082624)	1.08113 (86052824)	1.30574c(86010124)	1.04106c(86010124)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP , PADA , PADB ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.0	0.95456c(86070724)	1.12833c(86080824)	0.94700c(86080224)	0.97721 (86070424)	0.83831 (86121124)
20.0	0.69254c(86042424)	0.44453c(86070824)	1.30007c(86080224)	0.96499 (86020624)	0.88568c(86031124)
30.0	0.59335c(86042424)	0.21492c(86080224)	1.36945c(86082824)	1.15825c(86022124)	1.13211 (86011024)
40.0	0.49185c(86042424)	0.29981c(86090124)	1.34757c(86082824)	1.08287c(86022224)	0.80260c(86061924)
50.0	0.45764c(86062324)	0.31256c(86071624)	1.66579c(86090724)	1.07776c(86071824)	0.89604c(86010324)
60.0	0.48003c(86102024)	0.34818c(86080724)	2.29493c(86062024)	1.52977c(86062024)	1.14608c(86100424)
70.0	0.51938c(86102024)	0.42227c(86080724)	1.87513c(86060624)	1.47502 (86070224)	1.14075 (86072124)
80.0	0.53351c(86062724)	0.40592c(86080724)	1.75544c(86071624)	1.39030c(86042924)	0.96682c(86060624)
90.0	0.57160 (86112124)	0.56141c(86080124)	1.39242 (86072024)	1.62558c(86081824)	1.23250c(86081824)
100.0	0.64640c(86032824)	0.62829 (86101624)	1.45704c(86081724)	1.37979c(86081624)	1.06762c(86081524)
110.0	0.74218c(86032824)	0.73114c(86021324)	1.20075c(86061024)	1.12509c(86071924)	0.98609c(86012024)
120.0	0.81676c(86032824)	0.76776c(86062624)	0.85911c(86052224)	0.88747c(86071924)	0.71879c(86071924)
130.0	0.86823c(86032824)	0.76389c(86021324)	0.90269c(86010524)	0.85176 (86021224)	0.71659 (86012724)
140.0	0.97413c(86102024)	0.90524 (86011124)	0.76405c(86052224)	0.75941c(86061024)	0.63545c(86030124)
150.0	1.11598c(86011224)	0.85929 (86032224)	0.87048c(86101524)	0.61031c(86050324)	0.65361 (86021224)
160.0	1.11694c(86011224)	0.71462 (86111524)	0.86300c(86082424)	0.63010c(86101524)	0.50908 (86102924)
170.0	1.01360c(86011224)	0.82957 (86110224)	0.86447 (86011124)	0.71557 (86032124)	0.65670c(86082424)
180.0	0.93733 (86032924)	0.87888 (86110224)	0.84105 (86111524)	0.85727 (86032224)	0.74151 (86011124)
190.0	1.02791 (86032924)	0.89872c(86102824)	0.98991c(86032824)	0.80271 (86101624)	0.68785 (86120424)
200.0	1.05138 (86032924)	1.02806 (86120524)	0.80696 (86102124)	0.75651 (86111524)	0.70762 (86111524)
210.0	1.02354 (86032924)	1.42257c(86102724)	1.20845 (86122724)	0.97547c(86102824)	0.92126c(86102824)
220.0	0.99587c(86121624)	1.32963c(86102024)	1.65288c(86102724)	1.60757c(86102724)	1.51831c(86102724)
230.0	1.05482 (86101924)	1.30768 (86010824)	1.34955 (86010824)	1.21968 (86120624)	1.18375 (86120624)
240.0	1.17202 (86101924)	1.13692 (86033024)	1.31058 (86033024)	1.23213c(86092124)	1.07613c(86092124)
250.0	1.24220c(86092124)	1.28477c(86092124)	1.34910c(86092824)	1.18748 (86091524)	0.94802 (86010924)
260.0	1.27991c(86092124)	1.21940 (86091724)	1.38501 (86091524)	1.20326 (86091524)	0.96936 (86091524)
270.0	1.24293c(86092124)	1.21010 (86091524)	1.14844 (86091524)	0.95341c(86070724)	0.88544 (86111024)
280.0	1.29484 (86033024)	1.25332 (86091524)	1.12378c(86082324)	1.11768c(86082324)	0.97490c(86060324)
290.0	1.35755c(86092824)	1.18058c(86070724)	1.25304c(86040424)	1.00387c(86040424)	0.81491 (86052724)
300.0	1.37324 (86091524)	1.25738c(86070724)	1.12510c(86040424)	0.96834c(86082624)	0.81571c(86051524)
310.0	1.40904 (86091524)	1.35663c(86040424)	1.03235 (86092924)	0.98676c(86120924)	0.88109 (86112424)
320.0	1.39810 (86091524)	1.36637c(86040424)	1.14061 (86070524)	0.95628c(86071224)	0.84837c(86112524)
330.0	1.34296 (86091524)	1.25640 (86111124)	1.17700 (86092924)	1.05450 (86031324)	0.74837 (86031324)
340.0	1.31766 (86091724)	1.29963c(86070724)	1.17866 (86031324)	0.77073c(86112524)	0.66366 (86021024)
350.0	1.21118c(86082324)	1.43233c(86070824)	0.98052c(86083124)	0.79809c(86090624)	0.76649c(86010124)
360.0	1.11455c(86082324)	1.49988c(86070824)	1.00502c(86071324)	1.01937 (86082024)	0.89250 (86082024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***

INCLUDING SOURCE(S): DAP , PADA , PADB ,

** CONC OF SO2 IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE
1.	2.41037c(86100424)	AT (433.01,	250.00) GP	26.	1.70043c(86080124)	AT (433.01,	250.00) GP
2.	2.29493c(86062024)	AT (433.01,	250.00) GP	27.	1.69853c(86100524)	AT (492.40,	86.82) GP
3.	2.04937c(86080224)	AT (250.00,	433.01) GP	28.	1.69703c(86071524)	AT (433.01,	250.00) GP
4.	1.97140c(86091224)	AT (433.01,	250.00) GP	29.	1.68767c(86080224)	AT (375.00,	649.52) GP
5.	1.94171c(86071524)	AT (469.85,	171.01) GP	30.	1.67559c(86042524)	AT (469.85,	171.01) GP
6.	1.93780c(86081524)	AT (492.40,	86.82) GP	31.	1.66770c(86081524)	AT (750.00,	0.00) GP
7.	1.87513c(86060624)	AT (469.85,	171.01) GP	32.	1.66579c(86090724)	AT (383.02,	321.39) GP
8.	1.87066c(86071624)	AT (469.85,	171.01) GP	33.	1.65288c(86102724)	AT (-321.39,	-383.02) GP
9.	1.84696c(86100524)	AT (469.85,	171.01) GP	34.	1.64787c(86081824)	AT (469.85,	171.01) GP
10.	1.84281c(86082724)	AT (433.01,	250.00) GP	35.	1.64210c(86042524)	AT (433.01,	250.00) GP
11.	1.82211c(86071624)	AT (433.01,	250.00) GP	36.	1.62558c(86081824)	AT (750.00,	0.00) GP
12.	1.81993 (86122724)	AT (-321.39,	-383.02) GP	37.	1.62142 (86122724)	AT (-125.00,	-216.51) GP
13.	1.80594c(86080224)	AT (321.39,	383.02) GP	38.	1.61554c(86082224)	AT (469.85,	171.01) GP
14.	1.78651c(86100424)	AT (469.85,	171.01) GP	39.	1.61190c(86102024)	AT (-50.00,	-86.60) GP
15.	1.77616 (86122724)	AT (-482.09,	-574.53) GP	40.	1.60757c(86102724)	AT (-482.09,	-574.53) GP
16.	1.77239c(86100424)	AT (649.52,	375.00) GP	41.	1.60617c(86081524)	AT (469.85,	171.01) GP
17.	1.77174c(86071424)	AT (433.01,	250.00) GP	42.	1.60289c(86060924)	AT (492.40,	86.82) GP
18.	1.77010c(86082624)	AT (-43.41,	246.20) GP	43.	1.60275c(86102024)	AT (-34.20,	-93.97) GP
19.	1.75544c(86071624)	AT (492.40,	86.82) GP	44.	1.59900c(86102024)	AT (-64.28,	-76.60) GP
20.	1.74171c(86081824)	AT (492.40,	86.82) GP	45.	1.59718c(86071824)	AT (433.01,	250.00) GP
21.	1.71390 (86122724)	AT (-642.79,	-766.04) GP	46.	1.59540c(86091224)	AT (469.85,	171.01) GP
22.	1.71119c(86062024)	AT (469.85,	171.01) GP	47.	1.59275 (86072124)	AT (433.01,	250.00) GP
23.	1.70786c(86071824)	AT (383.02,	321.39) GP	48.	1.58237 (86072024)	AT (750.00,	0.00) GP
24.	1.70651 (86091724)	AT (-492.40,	-86.82) GP	49.	1.58089c(86080124)	AT (469.85,	171.01) GP
25.	1.70528 (86072024)	AT (492.40,	86.82) GP	50.	1.57914c(86102024)	AT (-17.36,	-98.48) GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG) OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.34404 AT (469.85, 171.01, 0.00, 0.00) GP POL1
	2ND HIGHEST VALUE IS	0.30162 AT (433.01, 250.00, 0.00, 0.00) GP POL1
	3RD HIGHEST VALUE IS	0.29806 AT (492.40, 86.82, 0.00, 0.00) GP POL1
	4TH HIGHEST VALUE IS	0.25985 AT (738.61, 130.24, 0.00, 0.00) GP POL1
	5TH HIGHEST VALUE IS	0.24994 AT (704.77, 256.52, 0.00, 0.00) GP POL1
	6TH HIGHEST VALUE IS	0.23466 AT (500.00, 0.00, 0.00, 0.00) GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	2.41037c	ON 86100424: AT (433.01, 250.00, 0.00, 0.00)	GP POL1
	HIGH 2ND HIGH VALUE IS	2.29493c	ON 86062024: AT (433.01, 250.00, 0.00, 0.00)	GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

---------- Summary of Total Messages ----------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 816 Informational Message(s)

A Total of 816 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

EXHIBIT E

U.S. AGRI-CHEMICALS

AMMONIA MODELING OUTPUT

IMPACT ON FT. MEADE CHEMICALS PLANT AREA DUE TO PROPOSED DAP PLANT

```
CO STARTING
  TITLEONE U.S.AGRICHEMICALS MAP/DAP GRANULAR PLANT AMMONIA MODELING
  MODELOPT DFAULT RURAL CONC
  AVERTIME 24 PERIOD
  POLLUTID SO2
  RUNORNOT RUN
  ERRORFIL errors.out
CO FINISHED

SO STARTING
**       SRCID  SRCTYP X     Y    Z
  LOCATION DAP    POINT 0.0   0.0   0.0
**            QS    HS    TS    VS    DS
  SRCPARAM DAP    0.66  40.26  321.9 15.59 2.135
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE GRIDPOLR POL1 STA
  GRIDPOLR POL1 ORIG 0.0 0.0
  GRIDPOLR POL1 DIST 100.0  250.0  500.0  750.0  1000.0
  GRIDPOLR POL1 GDIR 36 10 10
  GRIDPOLR POL1 END
RE FINISHED

ME STARTING
ME INPUTFIL C:\AIRMODEL\ISC2\TPAMET86.ASC
ME ANEMHGHT 10.0 FEET
ME SURFDATA 12842 1986 Tampa
ME UAIRDATA 12842 1986 Ruskin
ME DAYRANGE 1-365
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 50
OU FINISHED

************************************
*** SETUP Finishes Successfully ***
************************************
```

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 180 Receptor(s)

**The Model Assumes A Pollutant Type of: SO2

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 3.05 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: DAPNH3.INP ; **Output Print File: DAPNH3.OUT
**Detailed Error/Message File: errors.out

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	BASE ELEV. (METERS)	STACK X (METERS)	STACK Y (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	BUILDING DIAMETER (METERS)	EMISSION RATE EXISTS	SCALAR VARY BY
DAP	0	0.66000E+00	0.0	0.0	0.0	40.26	321.90	15.59	2.13	NO	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	DAP ,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

100.0, 250.0, 500.0, 750.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 111110

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\AIRMODEL\ISC2\TPAMET86.ASC FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1)
SURFACE STATION NO.: 12842 UPPER AIR STATION NO.: 12842
NAME: TAMPA NAME: RUSKIN
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
86	1	1	1	351.0	4.12	291.5	4	416.0	416.0
86	1	1	2	348.0	3.60	292.6	4	416.0	416.0
86	1	1	3	174.0	4.63	291.5	4	416.0	416.0
86	1	1	4	293.0	3.09	289.8	4	416.0	416.0
86	1	1	5	3.0	1.54	289.8	4	416.0	416.0
86	1	1	6	322.0	2.57	289.8	4	416.0	416.0
86	1	1	7	345.0	3.60	289.8	4	416.0	416.0
86	1	1	8	343.0	2.57	290.4	4	416.0	416.0
86	1	1	9	337.0	3.09	290.9	4	416.0	416.0
86	1	1	10	341.0	3.09	292.6	3	416.0	416.0
86	1	1	11	4.0	2.57	294.3	3	416.0	416.0
86	1	1	12	356.0	3.09	294.8	2	416.0	416.0
86	1	1	13	23.0	2.57	295.9	2	416.0	416.0
86	1	1	14	59.0	2.57	294.8	3	416.0	416.0
86	1	1	15	42.0	3.09	293.2	4	416.0	416.0
86	1	1	16	54.0	1.54	293.7	4	416.0	416.0
86	1	1	17	51.0	2.06	293.2	4	416.0	416.0
86	1	1	18	47.0	0.00	293.2	5	419.0	418.0
86	1	1	19	134.0	2.06	291.5	6	428.0	424.0
86	1	1	20	127.0	0.00	290.9	6	437.0	430.0
86	1	1	21	130.0	0.00	290.9	6	447.0	435.0
86	1	1	22	132.0	0.00	289.8	6	456.0	441.0
86	1	1	23	270.0	1.54	290.9	6	465.0	447.0
86	1	1	24	290.0	2.06	290.4	6	474.0	453.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.00	0.00000	0.01347	0.05076	0.05135	0.04543
20.00	0.00000	0.01436	0.05447	0.05486	0.04869
30.00	0.00000	0.01500	0.05852	0.05967	0.05336
40.00	0.00000	0.01736	0.06487	0.06152	0.05124
50.00	0.00001	0.02342	0.08156	0.07383	0.05993
60.00	0.00001	0.03143	0.10937	0.09794	0.07772
70.00	0.00001	0.03663	0.13187	0.11774	0.09198
80.00	0.00001	0.03700	0.14337	0.13220	0.10463
90.00	0.00001	0.03382	0.14467	0.13922	0.11237
100.00	0.00000	0.02492	0.11016	0.10992	0.09150
110.00	0.00000	0.01425	0.07124	0.07768	0.06912
120.00	0.00000	0.00749	0.04309	0.05121	0.04925
130.00	0.00000	0.00565	0.03354	0.04013	0.03900
140.00	0.00000	0.00559	0.03272	0.03857	0.03674
150.00	0.00000	0.00466	0.02776	0.03395	0.03384
160.00	0.00000	0.00353	0.02121	0.02590	0.02516
170.00	0.00000	0.00348	0.02403	0.03022	0.02936
180.00	0.00000	0.00339	0.02319	0.02948	0.02935
190.00	0.00000	0.00361	0.02140	0.02676	0.02737
200.00	0.00000	0.00487	0.02459	0.02885	0.02892
210.00	0.00000	0.00742	0.03408	0.03814	0.03683
220.00	0.00000	0.01025	0.04608	0.05267	0.05309
230.00	0.00000	0.01219	0.06001	0.07042	0.06926
240.00	0.00000	0.01377	0.07243	0.08631	0.08437
250.00	0.00000	0.01546	0.07616	0.08415	0.07763
260.00	0.00000	0.01657	0.07555	0.08076	0.07350
270.00	0.00000	0.01692	0.07865	0.08612	0.08095
280.00	0.00000	0.01648	0.07351	0.07742	0.06972
290.00	0.00000	0.01717	0.07585	0.07924	0.07044
300.00	0.00000	0.01778	0.08454	0.09054	0.08193
310.00	0.00000	0.01559	0.07952	0.08770	0.08139
320.00	0.00000	0.01167	0.06046	0.06650	0.06088
330.00	0.00000	0.00970	0.04678	0.05092	0.04680
340.00	0.00000	0.00972	0.03954	0.04121	0.03817
350.00	0.00000	0.01079	0.04060	0.04093	0.03698
360.00	0.00000	0.01221	0.04668	0.04906	0.04519

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.0	0.00028c(86080824)	0.29162 (86080624)	0.66012c(86080224)	0.53840c(86041224)	0.44754c(86041224)
20.0	0.00017 (86073124)	0.35768c(86080224)	1.25024c(86080224)	0.98398c(86080224)	0.67730c(86080224)
30.0	0.00026c(86060724)	0.34053c(86090124)	1.11139c(86080224)	0.98094c(86080224)	0.72846c(86080224)
40.0	0.00026c(86060724)	0.40150c(86090724)	0.57371c(86071824)	0.59134c(86071824)	0.45190c(86071824)
50.0	0.00044c(86080124)	0.51023c(86090724)	0.77352c(86090724)	0.56895c(86071824)	0.47442 (86022724)
60.0	0.00054c(86071624)	0.66062c(86071624)	0.93092c(86100424)	0.93221c(86100424)	0.72365c(86100424)
70.0	0.00055c(86071624)	0.66849c(86071624)	1.05467c(86100424)	0.93791c(86100424)	0.76239 (86072124)
80.0	0.00039c(86080124)	0.51323c(86080724)	1.04246c(86100524)	0.80662c(86060624)	0.64682 (86070224)
90.0	0.00071c(86080124)	0.60495c(86080124)	1.27013c(86081824)	1.05887c(86081524)	0.83855c(86060724)
100.0	0.00065c(86080124)	0.51111c(86080124)	1.03967 (86072024)	1.08428c(86081524)	0.92068c(86081524)
110.0	0.00026c(86080124)	0.24469c(86080124)	0.70160c(86050924)	0.69724c(86081724)	0.61848c(86081724)
120.0	0.00004c(86080124)	0.12679c(86072424)	0.55711c(86082424)	0.51417c(86082424)	0.56990c(86012024)
130.0	0.00002c(86071424)	0.15553c(86071924)	0.66251c(86071924)	0.68738c(86071924)	0.60968c(86071924)
140.0	0.00004c(86061124)	0.18658c(86071924)	0.80077c(86052224)	0.74004c(86052224)	0.70456c(86061024)
150.0	0.00004c(86061124)	0.17613c(86061124)	0.53957c(86090324)	0.52323 (86061824)	0.44939 (86061824)
160.0	0.00005c(86062624)	0.21186c(86062624)	0.52200c(86062624)	0.35715 (86061824)	0.44711c(86010524)
170.0	0.00005c(86062624)	0.17536c(86062624)	0.46582c(86062624)	0.43804c(86061024)	0.42824c(86101524)
180.0	0.00002 (86060124)	0.13117c(86082424)	0.60501c(86082424)	0.57450c(86082424)	0.47902c(86082424)
190.0	0.00002 (86060124)	0.12084c(86082424)	0.45418c(86032824)	0.46660 (86011124)	0.54098 (86011124)
200.0	0.00006c(86090824)	0.14697c(86052224)	0.54476 (86112124)	0.51548 (86112124)	0.41398 (86112124)
210.0	0.00011c(86082324)	0.19202c(86082324)	0.51885c(86032824)	0.62636c(86011224)	0.58088c(86011224)
220.0	0.00034c(86082324)	0.40843c(86082324)	0.68569c(86102024)	0.79875c(86102024)	0.66342c(86102024)
230.0	0.00042c(86082324)	0.49818c(86082324)	0.64704 (86091924)	0.72884c(86102024)	0.73035 (86010824)
240.0	0.00023c(86082324)	0.41386c(86082324)	0.76373c(86082324)	0.84707c(86092124)	0.77233c(86092124)
250.0	0.00018c(86082224)	0.26843c(86082324)	1.03557 (86091724)	1.01011 (86091724)	0.84895 (86091724)
260.0	0.00024c(86082224)	0.28502c(86090424)	1.04836c(86070724)	0.92134 (86091524)	0.76549 (86091524)
270.0	0.00013c(86082224)	0.28175c(86070724)	1.11782c(86070724)	0.99478c(86082324)	0.95241c(86082324)
280.0	0.00021c(86082624)	0.34641c(86082624)	1.00540c(86070724)	0.86475c(86070724)	0.72948c(86040424)
290.0	0.00035c(86082624)	0.50747c(86082624)	1.04030c(86082624)	0.71849c(86082624)	0.58029c(86051524)
300.0	0.00025c(86082624)	0.42119c(86082624)	1.11955c(86082624)	0.91748c(86082624)	0.75741 (86092924)
310.0	0.00017c(86082524)	0.27210c(86082524)	0.83241c(86101324)	0.85350c(86101324)	0.75833 (86031824)
320.0	0.00007c(86082524)	0.18458c(86082524)	0.52570 (86092924)	0.59485c(86112524)	0.54323c(86112524)
330.0	0.00010c(86061124)	0.22468 (86052824)	0.70726 (86052824)	0.59874 (86052824)	0.52025c(86112524)
340.0	0.00009c(86061124)	0.22292c(86092324)	0.51147c(86100824)	0.51648c(86100824)	0.45149 (86082024)
350.0	0.00016 (86080624)	0.26004 (86050624)	0.62568 (86050624)	0.43155 (86050624)	0.36107c(86010124)
360.0	0.00028 (86080624)	0.34580 (86080624)	0.49224c(86091124)	0.43179c(86072524)	0.44080c(86072924)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DAP ,

*** NETWORK ID: POL1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 100.00	250.00	500.00	750.00	1000.00
10.0	0.00022 (86080624)	0.23055c(86072524)	0.65401c(86063024)	0.49721c(86063024)	0.43513 (86020624)
20.0	0.00016c(86080824)	0.23118c(86072524)	0.78824c(86082824)	0.62616c(86082824)	0.51090 (86111724)
30.0	0.00017c(86090124)	0.27173c(86080224)	0.74915c(86082824)	0.58409c(86082824)	0.60274c(86072924)
40.0	0.00025c(86090724)	0.37889c(86090124)	0.54653c(86090724)	0.51736c(86061924)	0.43811c(86061924)
50.0	0.00033c(86090724)	0.39519c(86071624)	0.66032c(86071824)	0.42851 (86010424)	0.40465c(86071824)
60.0	0.00048c(86080124)	0.44023c(86080724)	0.86447c(86071424)	0.69107c(86062024)	0.56674 (86022724)
70.0	0.00040c(86080724)	0.53390c(86080724)	1.03832c(86071524)	0.87275 (86072124)	0.67153c(86100424)
80.0	0.00027c(86080724)	0.44286c(86071624)	0.96854c(86060624)	0.80488c(86100524)	0.61341c(86042924)
90.0	0.00019c(86071324)	0.44762c(86071324)	1.19306c(86100524)	1.05297c(86081824)	0.82983c(86081524)
100.0	0.00015c(86071324)	0.35759c(86071324)	1.02507c(86081524)	0.91376c(86060924)	0.86458c(86060924)
110.0	0.00006c(86062424)	0.23273c(86072424)	0.63066c(86081724)	0.64565 (86041624)	0.58842 (86041624)
120.0	0.00003c(86072424)	0.10303 (86073124)	0.42071c(86071924)	0.48481c(86040224)	0.49214c(86040224)
130.0	0.00001c(86061124)	0.11920c(86052224)	0.65716c(86052224)	0.64317c(86082424)	0.54085c(86082424)
140.0	0.00003c(86071424)	0.16758c(86090324)	0.71521c(86071924)	0.73679c(86061024)	0.55755c(86071924)
150.0	0.00003c(86062624)	0.14024c(86062624)	0.48752c(86052224)	0.46634c(86090324)	0.39842c(86050324)
160.0	0.00002c(86061124)	0.09903c(86061124)	0.30717 (86061824)	0.34982c(86062624)	0.30722 (86021224)
170.0	0.00001 (86060124)	0.08874c(86082424)	0.39719c(86061024)	0.39573c(86021324)	0.36148c(86061024)
180.0	0.00002c(86062624)	0.12073 (86060124)	0.27744c(86032824)	0.41037 (86032224)	0.47089 (86032224)
190.0	0.00002c(86090824)	0.10789c(86032824)	0.44767c(86082424)	0.37495 (86032224)	0.41716 (86032224)
200.0	0.00002c(86052224)	0.12565c(86090824)	0.48150c(86032824)	0.47706c(86032824)	0.41371c(86032824)
210.0	0.00008c(86090824)	0.18402c(86062724)	0.48257c(86102024)	0.59282c(86102024)	0.49143c(86102024)
220.0	0.00018c(86062724)	0.27483c(86062724)	0.51477 (86032924)	0.59033 (86032924)	0.56938 (86120524)
230.0	0.00023c(86062724)	0.27503c(86062724)	0.60553c(86082324)	0.62171 (86091924)	0.68409c(86102024)
240.0	0.00013c(86062724)	0.20622c(86062724)	0.75376c(86092124)	0.79359 (86033024)	0.73067 (86033024)
250.0	0.00011c(86090124)	0.25648c(86043024)	0.89686 (86091524)	0.89858c(86092824)	0.74475c(86092824)
260.0	0.00010c(86090124)	0.28384c(86070724)	0.91416 (86091524)	0.80917c(86070724)	0.61143 (86091724)
270.0	0.00006c(86082524)	0.19137 (86081024)	0.82547c(86082324)	0.88121c(86070724)	0.69382c(86040424)
280.0	0.00010c(86082524)	0.24602c(86070724)	0.85246 (86111124)	0.80731c(86040424)	0.62957c(86070724)
290.0	0.00016c(86083124)	0.32212c(86080824)	0.92874c(86080824)	0.71515c(86080824)	0.56782 (86052724)
300.0	0.00021c(86082524)	0.38917c(86080824)	0.99220c(86080824)	0.89468 (86092924)	0.67200c(86082624)
310.0	0.00012c(86080824)	0.26540c(86080824)	0.71157 (86092924)	0.83417 (86112424)	0.74638 (86031324)
320.0	0.00005c(86062224)	0.14040c(86062224)	0.50641c(86101324)	0.54881c(86101324)	0.47756 (86081224)
330.0	0.00005c(86082624)	0.19797c(86061124)	0.51556c(86100824)	0.59760c(86112524)	0.44117 (86052824)
340.0	0.00008c(86092324)	0.18011 (86050624)	0.49765c(86051224)	0.46377c(86071324)	0.39819c(86100824)
350.0	0.00011c(86082224)	0.23200c(86092324)	0.57024c(86091124)	0.40352c(86091124)	0.35778c(86072524)
360.0	0.00022c(86080824)	0.19340c(86072524)	0.45773c(86063024)	0.42338 (86051924)	0.39577 (86113024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL
***

INCLUDING SOURCE(S): DAP ,

** CONC OF SO2 IN MICROGRAMS/M**3 **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	1.27013	(86081824)	AT (	500.00, 0.00)	GP
2.	1.25024	(86080224)	AT (	171.01, 469.85)	GP
3.	1.19306	(86100524)	AT (	500.00, 0.00)	GP
4.	1.11955	(86082624)	AT (	-433.01, 250.00)	GP
5.	1.11782	(86070724)	AT (	-500.00, 0.00)	GP
6.	1.11744	(86072024)	AT (	500.00, 0.00)	GP
7.	1.11139	(86080224)	AT (	250.00, 433.01)	GP
8.	1.09380	(86081524)	AT (	500.00, 0.00)	GP
9.	1.08428	(86081524)	AT (	738.61, -130.24)	GP
10.	1.05887	(86081524)	AT (	750.00, 0.00)	GP
11.	1.05467	(86100424)	AT (	469.85, 171.01)	GP
12.	1.05297	(86081824)	AT (	750.00, 0.00)	GP
13.	1.04836	(86070724)	AT (	-492.40, -86.82)	GP
14.	1.04731	(86060724)	AT (	500.00, 0.00)	GP
15.	1.04246	(86100524)	AT (	492.40, 86.82)	GP
16.	1.04030	(86082624)	AT (	-469.85, 171.01)	GP
17.	1.03967	(86072024)	AT (	492.40, -86.82)	GP
18.	1.03832	(86071524)	AT (	469.85, 171.01)	GP
19.	1.03557	(86091724)	AT (	-469.85, -171.01)	GP
20.	1.03053	(86060724)	AT (	750.00, 0.00)	GP
21.	1.02507	(86081524)	AT (	492.40, -86.82)	GP
22.	1.01011	(86091724)	AT (	-704.77, -256.52)	GP
23.	1.00712	(86072024)	AT (	750.00, 0.00)	GP
24.	1.00540	(86070724)	AT (	-492.40, 86.82)	GP
25.	0.99478	(86082324)	AT (	-750.00, 0.00)	GP
26.	0.99220	(86080824)	AT (	-433.01, 250.00)	GP
27.	0.98398	(86080224)	AT (	256.52, 704.77)	GP
28.	0.98094	(86080224)	AT (	375.00, 649.52)	GP
29.	0.98012	(86060624)	AT (	500.00, 0.00)	GP
30.	0.96854	(86060624)	AT (	492.40, 86.82)	GP
31.	0.95241	(86082324)	AT (	-1000.00, 0.00)	GP
32.	0.95168	(86070824)	AT (	-433.01, 250.00)	GP
33.	0.94756	(86100524)	AT (	750.00, 0.00)	GP
34.	0.93791	(86100424)	AT (	704.77, 256.52)	GP
35.	0.93697	(86060624)	AT (	750.00, 0.00)	GP
36.	0.93696	(86060724)	AT (	492.40, -86.82)	GP
37.	0.93221	(86100424)	AT (	649.52, 375.00)	GP
38.	0.93092	(86100424)	AT (	433.01, 250.00)	GP
39.	0.92874	(86080824)	AT (	-469.85, 171.01)	GP
40.	0.92408	(86062024)	AT (	469.85, 171.01)	GP
41.	0.92333	(86042524)	AT (	469.85, 171.01)	GP
42.	0.92134	(86091524)	AT (	-738.61, -130.24)	GP
43.	0.92068	(86081524)	AT (	984.81, -173.65)	GP
44.	0.91748	(86082624)	AT (	-649.52, 375.00)	GP
45.	0.91416	(86091524)	AT (	-492.40, -86.82)	GP
46.	0.91376	(86060924)	AT (	738.61, -130.24)	GP
47.	0.91149	(86050924)	AT (	492.40, -86.82)	GP
48.	0.91077	(86071624)	AT (	492.40, 86.82)	GP
49.	0.89898	(86081824)	AT (	492.40, 86.82)	GP
50.	0.89858	(86092824)	AT (	-704.77, -256.52)	GP

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.14467 AT (500.00, 0.00, 0.00, 0.00)	GP	POL1
	2ND HIGHEST VALUE IS	0.14337 AT (492.40, 86.82, 0.00, 0.00)	GP	POL1
	3RD HIGHEST VALUE IS	0.13922 AT (750.00, 0.00, 0.00, 0.00)	GP	POL1
	4TH HIGHEST VALUE IS	0.13220 AT (738.61, 130.24, 0.00, 0.00)	GP	POL1
	5TH HIGHEST VALUE IS	0.13187 AT (469.85, 171.01, 0.00, 0.00)	GP	POL1
	6TH HIGHEST VALUE IS	0.11774 AT (704.77, 256.52, 0.00, 0.00)	GP	POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	1.27013c	ON 86081824: AT (500.00, 0.00, 0.00, 0.00)	GP POL1
	HIGH 2ND HIGH VALUE IS	1.19306c	ON 86100524: AT (500.00, 0.00, 0.00, 0.00)	GP POL1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

------- Summary of Total Messages -------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 816 Informational Message(s)

A Total of 816 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Steven J. Susick, P.E.
General Manager
US Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, Florida 33841-9799

4a. Article Number

Z 751 860 003

4b. Service Type

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

11-30-94

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, December 1991 ☆U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 751 860 003

Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to: Mr. Steven J. Susick, P.E.	
Street and No.: 3225 State Road 630 West	
P.O., State and ZIP Code: Fort Meade, FL 33841-9799	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date: Mailed: 11/28/94 PSD-FL-222 (AC53-260190) PSD-FL-223 (AC53-260192)	

PS Form **3800**, March 1993

PERMIT APPLICATION FEE/ASSIGNMENT SHEET

APPLICATION TYPE: AC1A FILE PROCESSING NO: AC53-260192

COMPANY: US AGRI-CHEM COUNTY: 53 POLK
(Code/name)

DESCRIPTION/COMMENTS: DAP PLANT

(amend/extend/transfer/etc.) and permit no., when applicable

DATE REC'D (Day 1): 10/28/94

CHECK ATTACHED: (Y) N Not Required ( )

FEE SUBMITTED: (✓) correct ( ) incorrect - Should Be $ 7500.
(ONE $15,000. CK. RCVD. FOR 2 APP'S.) Submitted $ 7500.
Needed/Refund $ _____

FEE CHECKED BY: JK DATE: 11/2

APPLICATION ASSIGNED TO: _____ DATE: _____

PERMIT APPLICATION PROCESSING STATUS

	Completed	Initials
Date PATS Updated With Processor Name:		
Permit Engineer Submit Finished Permit Package & Recommendations to District Air Engineer:		
Permit Package to District Air Administrator:		
Permit Package to Director of District Management:		
Permit Package Mailed Out:		

DATA FOLLOW UP

Issue Date Updated on PATS:		
Updated on DEC:		

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

238092

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from US Agri-Chemicals Date 11-2-94

Address 3225 SR 630 West, Ft. Meade Dollars $ 15000.00

Applicant Name & Address Same

Source of Revenue MAP Plant, DAP Plant AC53-260190 - #7500.00

Revenue Code 2222 Application Number AC53-260192 - #7500.00

ck # 16867

By Betty Carver