

# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

January 7, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. J. B. Munroe  
Vice President, Operations  
Occidental Chemical Corporation  
P. O. Box 300  
White Springs, Florida 32096

Dear Mr. Munroe:

Re: Construction Permit Application for GSPA Plant

Since the subject application has been revised to build the GSPA plant at the Suwannee River Plant instead of Swift Creek, it appears at this time that PSD review would not be required. Therefore, it will not be necessary to submit the revised application to the Tallahassee office.

Sincerely,

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

CHF/JR/plm

c: J. Cole, NED  
J. Koogler, P.E.

**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 next to the article number.

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. J. B. Munroe  
 Vice President, Operations  
 Occidental Chemical Corp.  
 P. O. Box 300  
 White Springs, FL 32096

4a. Article Number

P 832 538 762

4b. Service Type

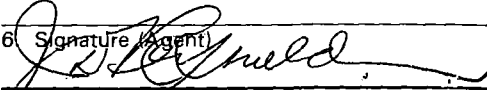
- Registered  Insured
- Certified  COD
- Express Mail  Return Receipt for Merchandise

7. Date of Delivery

1-15-92

5. Signature (Addressee)

6. Signature (Agent)



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

PS Form 3811, October 1990

\*U.S. GPO: 1990-273-861

**DOMESTIC RETURN RECEIPT**

P 832 538 762



**Certified Mail Receipt**

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

Sent to	
Mr. J. B. Munroe, Occidental	
Street & No.	
P. O. Box 300	
P.O., State & ZIP Code	
White Springs, FL 32096	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$
Postmark or Date	
Mailed: 1-13-92	
Permit: GSPA Plant	

PS Form 3800, June 1990

Withdrawn AC 24-85867

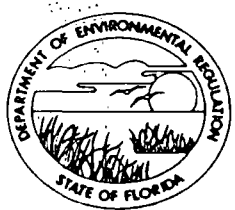
STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT  
3319 MAGUIRE BOULEVARD  
SUITE 232  
ORLANDO, FLORIDA 32803

DER

APR 18 1984



BOB GRAHAM GOVERNOR  
VICTORIA J. TSCHINKEL SECRETARY  
ALEX SENKEVICH DISTRICT MANAGER

3/29/84

BAQM

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Granular Fertilizer Plant [ ] New<sup>1</sup> [X] Existing<sup>1</sup>  
APPLICATION TYPE: [ ] Construction [ ] Operation [X] Modification  
COMPANY NAME: Occidental Chemical Agricultural Products, Inc. COUNTY: Hamilton

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) Diammonium Phosphate Plant No. 2

SOURCE LOCATION: Street SR 137 City White Springs

UTM: East 3283.20 km E North 3368.82 km N

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: Occidental Chemical Agricultural Products, Inc./

APPLICANT ADDRESS: Post Office Box 300, White Springs, Florida 32096

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Occidental Chemical Agricultural Products, Inc.

I certify that the statements made in this application for a 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: M.P. McArthur

M.P. McArthur, V.P. & General Manager  
Name and Title (Please Type)

Date: 4/19/84 Telephone No. (904) 397-8101

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

<sup>1</sup> 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 *J. Koogler*  
John B. Koogler, Ph.D., P.E.  
Name (Please Type)

SHOLTES & KOOGLER ENVIRONMENTAL CONSULTANTS  
Company Name (Please Type)

1213 NW 6th Street, Gainesville, FL 32601  
Mailing Address (Please Type)

Florida Registration No. 12925 Date: 4/17/84 Telephone No. (904) 377-5822

**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.  
 Permit application to increase the production capacity of the No. 2 DAP plant from 60 STPH (DAP) to 75 STPH (DAP) with no physical plant modifications. Product will be produced by reacting 30% and 50% phosphoric acid with phosphate rock. Product dryer is gas fired with 1.5% sulfur oil as standby fuel. Recycle rate through screens and dryer is 6.2 to 1. Plant will operate in full compliance with all applicable air quality regulations.
- B. Schedule of project covered in this application (Construction Permit Application Only)  
 Start of Construction May 1984 Completion of Construction May 1984
- 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.)  
None - Existing control equipment is adequate
- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.  
A024-10781 issued 7/7/78 and expired 7/31/80; A024-33051 issued 9/16/80 and expiring 9/16/85; AC24-56215 issued 5/17/83 and expiring 9/1/84.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
if power plant, hrs/yr \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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? \_\_\_\_\_  
b. If yes, has "Lowest Achievable Emission Rate" been applied? \_\_\_\_\_  
c. If yes, list non-attainment pollutants. \_\_\_\_\_

2. Does best available control technology (BACT) apply to this source?  
If yes, see Section VI. NO\*

3. Does the State "Prevention of Significant Deterioration" (PSD)  
requirement apply to this source? If yes, see Sections VI and VII. NO\*

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? \_\_\_\_\_

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 justifi-  
cation for any answer of "No" that might be considered questionable.

\*Proposed modification is a minor modification to a source which is part of a  
facility which is a major source.

**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	F	1 - 3	181,667	1
Anhydrous Ammonia	None	0	35,206	2
Sulfuric Acid	None	0	3,000	8

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

1. Total Process Input Rate (lbs/hr): 219,873
2. Product Weight (lbs/hr): 150,000 (DAP)

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

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission Rate per Rule 17-2	Allowable <sup>3</sup> Emission lbs/hr	Potential <sup>4</sup> Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
Fluoride(asF)	2.18	8	NSPS	2.18	54.5	239	7
Part. Matter	46.2	202	17-2.610(1)	46.2	1027	4497	7
SO <sub>2</sub>	14.8	65	BACT*	14.8	74.0	323	7
NO <sub>x</sub>	16.9	74	NA	16.9	17.0	74	7
*PSD FL-083							

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>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)

<sup>3</sup>Calculated from operating rate and applicable standard.

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3).

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, Cyclone & Entrainment Separator by Badger/Polycon	F	96.0	NA	Design & Test
	Part. Matter	95.5	> 5	" "
Absorption in Dryer	SO <sub>2</sub>	80%	NA	BACT*
*PSD FL-083				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Gas	0.037	0.044	45
No. 6 fuel oil	256	307	45

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

Fuel Analysis: Gas/Oil

Percent Sulfur: Nil/1.5 Percent Ash: Nil/0.09

Density: NA/8.0 lbs/gal Typical Percent Nitrogen: Nil/Nil

Heat Capacity: 1025 BTU/ft<sup>3</sup>/18,300 BTU/lb 146,400 BTU/gal

Other Fuel Contaminants (which may cause air pollution): None

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

Annual Average NA Maximum

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

Scrubber effluent is pumped to the process cooling water pond. Particulate  
matter from the cyclones is returned to the process as recycle material.

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

Stack Height: 140 ft. Stack Diameter: 8.0 ft.  
 Gas Flow Rate: 76,000 ACFM 56,200 DSCFM Gas Exit Temperature: 140 °F.  
 Water Vapor Contents: 16 % Velocity: 25.2 FPS

SECTION IV: INCINERATOR INFORMATION  
 NOT APPLICABLE

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) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ 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 devices:  Cyclone  Wet Scrubber  Afterburner  
 Other (specify) \_\_\_\_\_



**Brief description of operating characteristics of control devices:** Cyclones are used to recover fines from the mill and screens. Venturi scrubbers are used to control ammonia and particulate matter emissions from the reactor/granulator, the dryer and the mill/screens cyclone. The gas streams from the three venturi scrubbers are combined and passed through a packed bed scrubber for fluoride control.

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

Scrubber water is recirculated through the process water cooling pond. Fines from the cyclones are returned to the process as recycle material.

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

#### 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.

SECTION V  
SUPPLEMENTAL REQUIREMENTS

1. Process Input and Production Rate

PRODUCT: Diammonium Phosphate as 46% P<sub>2</sub>O<sub>5</sub>, 18% N granules

PRODUCT RATE: 1,800 Short tons per day (STPD)

-or-

150,000 pounds per hour (1,800 × 2,000/24)

PROCESS LOSSES: - 5% of P<sub>2</sub>O<sub>5</sub> in phosphoric acid input or 95% recovery  
- 6.5% of ammonia input or 93.5% recovery

PROCESS INPUT:

Phosphoric Acid: 872 STPD of 100% P<sub>2</sub>O<sub>5</sub> from both 30 and 50% P<sub>2</sub>O<sub>5</sub> acid<sup>(1)</sup>  
(1,800 × 0.46/0.95)

-or-

2,180 STPD of 40% P<sub>2</sub>O<sub>5</sub> acid from 30 and 50% mixed "half & half"  
(872/0.40)

-or-

181,667 lbs/hr 40% P<sub>2</sub>O<sub>5</sub> acid

-or-

90,833 lbs/hr of 30% P<sub>2</sub>O<sub>5</sub> acid and  
90,833 lbs/hr of 50% P<sub>2</sub>O<sub>5</sub> acid

Ammonia: 347 STPD of 100% nitrogen (1,800 × 0.18/0.935)

-or-

422 STPD of NH<sub>3</sub> (347 × 17/14/0.996)<sup>(2)</sup>

-or-

35,206 lbs/hr

Sulfuric Acid: Used for "grade control" may average about 3,000 lbs/hr of  
93% acid.

Total Process Input Rate: 219,873 lbs/hr (181,667 + 35,206 + 3,000)

---

(1) Water-Heat balance in slurry process requires an average 40% P<sub>2</sub>O<sub>5</sub> strength feed acid at previous, average permitted rate.

(2) Purity of anhydrous ammonia is 99.6% NH<sub>3</sub>.

## 2&3. Uncontrolled and Controlled Emissions

### FLUORIDE

#### Controlled:

Based on 0.06 lb F/ton  $P_2O_5$  input

$$\begin{aligned} F &= 872 \text{ tpd } P_2O_5 \times 1/24 \times 0.06 \\ &= 2.18 \text{ lb F/hr (Permitted under A024-33051 is 1.74 lbs/hr)} \end{aligned}$$

- or -

Annual = Presently permitted rate (6.1 tpy\*; A024-33051)  
+ Annualized hourly rate increase.

$$\begin{aligned} F &= 6.1 + (2.18 - 1.74) \times 8760/2000 \\ &= 8.0 \text{ tpy} \end{aligned}$$

Annual Increase:

$$\begin{aligned} F &= 8.0 - 6.1 \\ &= 1.9 \text{ tpy} < 3.0 \text{ tpy PSD de minimus rate increase.} \end{aligned}$$

\*6.1 tpy  $F^-$  emission rate increase permitted under A024-33051 was calculated from hourly production rate of 50 tph (DAP); 0.06 lb F/ton  $P_2O_5$ ; and 8760 hours per year operation. This rate was not increased so that PSD would not be triggered under "old" PSD rule.

#### Uncontrolled:

Based on 96.0% control as reported in application for A024-33051. Typical control efficiencies reported in AP-42, Supplement 13 and in the range of 74-94%.

$$\begin{aligned} F &= 2.18/(1 - 0.96) \\ &= 54.5 \text{ lbs/hr} \times 8760/2000 \\ &= 239 \text{ tpy} \end{aligned}$$

### PARTICULATE MATTER

#### Controlled:

Based on "Process Weight Table" (Chapter 17-2.610(1), FAC) and recycle rate of 9.3 to 1 on original plant design rate of 50 tph or a recycle rate of 6.2 to 1 on a proposed operating rate of 75 tph.

2&3. Uncontrolled and Controlled Emissions (continued)

Process weight rate  
=  $6.2 \times 75$  tph  
= 465 tph

Particulate Matter  
PM =  $17.31 (465) \exp. 0.16$   
=  $46.2 \text{ lbs/hr} \times 8760/2000$   
= 202 tpy

Annual Increase  
PM =  $202 - 193^*$   
= 9.0 tpy < 25 tpy PSD de minimus rate increase

\* Permitted under A024033051

Uncontrolled:

Based on 95.5% control reported in permit application for AC24-56215.  
Typical control efficiencies reported in AP-42, Supplement 13 are in the range 75-99.8%

=  $46.2 \text{ lbs/hr} / (1 - 0.955)$   
=  $1027 \text{ lbs/hr} \times 8760/2000$   
= 4497 tpy.

SULFUR DIOXIDE

Uncontrolled:

Based on use of 1.5% No. 2 fuel oil to provide maximum of 45 million BTU per hour heat input.

$\text{SO}_2 = 45 \times 10^6 / 18,300 \times 0.015 \times 2$   
=  $73.8 \text{ lbs/hr} \times 8760/2000$   
= 323 tpy.

Controlled:

Based on 80% control efficiency as assumed in AC24-56215

$\text{SO}_2 = 73.8 (1 - 0.8)$   
=  $14.8 \text{ lbs/hr} \times 8760/2000$   
= 64.6 tpy

Annual Increase

$\text{SO}_2 = 64.6 - 51.7$   
= 12.9 tpy < 40 tpy PSD de minimus rate increase.

## NITROGEN OXIDES

### Controlled and Uncontrolled:

Based on AP-42, Supplement 13 factor of 0.055 lb NO<sub>x</sub>/gal.

$$\begin{aligned}\text{NO}_x &= 307 \text{ gal/hr} \times 0.055 \\ &= 16.9 \text{ lbs/hr} \times 8760/2000 \\ &= 74.0 \text{ tpy}\end{aligned}$$

(Present permit [AC24-56215] does not limit NO<sub>x</sub> emissions. Conditions specified in this permit would result in an annual NO<sub>x</sub> emission rate of 59.2 tpy)

Annual Increase

$$\begin{aligned}\text{NO}_x &= 74.0 - 59.2 \\ &= 14.7 \text{ tpy} < 40 \text{ tpy PSD de minimus rate increase.}\end{aligned}$$

4. Air pollution control system is an existing system which has been reviewed previously by FDER and EPA.
5. See Sections 2 and 3 for efficiency calculations.
6. Attachment 1 - Process Flow
7. Attachment 2 - Site Location
8. Attachment 3 - Plot Plan.

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**

NOT APPLICABLE

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

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

Yes  No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

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

1. Control Device/System:
3. Efficiency:\*

2. Operating Principles:
4. Capital Costs:

\*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

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:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

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:<sup>1</sup>

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:<sup>2</sup>

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>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 operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- 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:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:<sup>1</sup>
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:<sup>2</sup>
- 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:
- 2. Efficiency:<sup>1</sup>
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:<sup>2</sup>
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

<sup>1</sup>Explain method of determining efficiency.

<sup>2</sup>Energy to be reported in units of electrical power - KWH design rate.



(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:<sup>1</sup>

Contaminant	Rate or Concentration

(8) Process Rate:<sup>1</sup>

10. Reason for selection and description of systems:

<sup>1</sup>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**

NOT APPLICABLE

**A. Company Monitored Data**

1. \_\_\_\_\_ no. sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sub>2</sub>\* \_\_\_\_\_ 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.

\*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. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year month day year
- 2. Surface data obtained from (location) \_\_\_\_\_
- 3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_
- 4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

- 1. \_\_\_\_\_ Modified? 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.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO <sup>2</sup>	_____ 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.

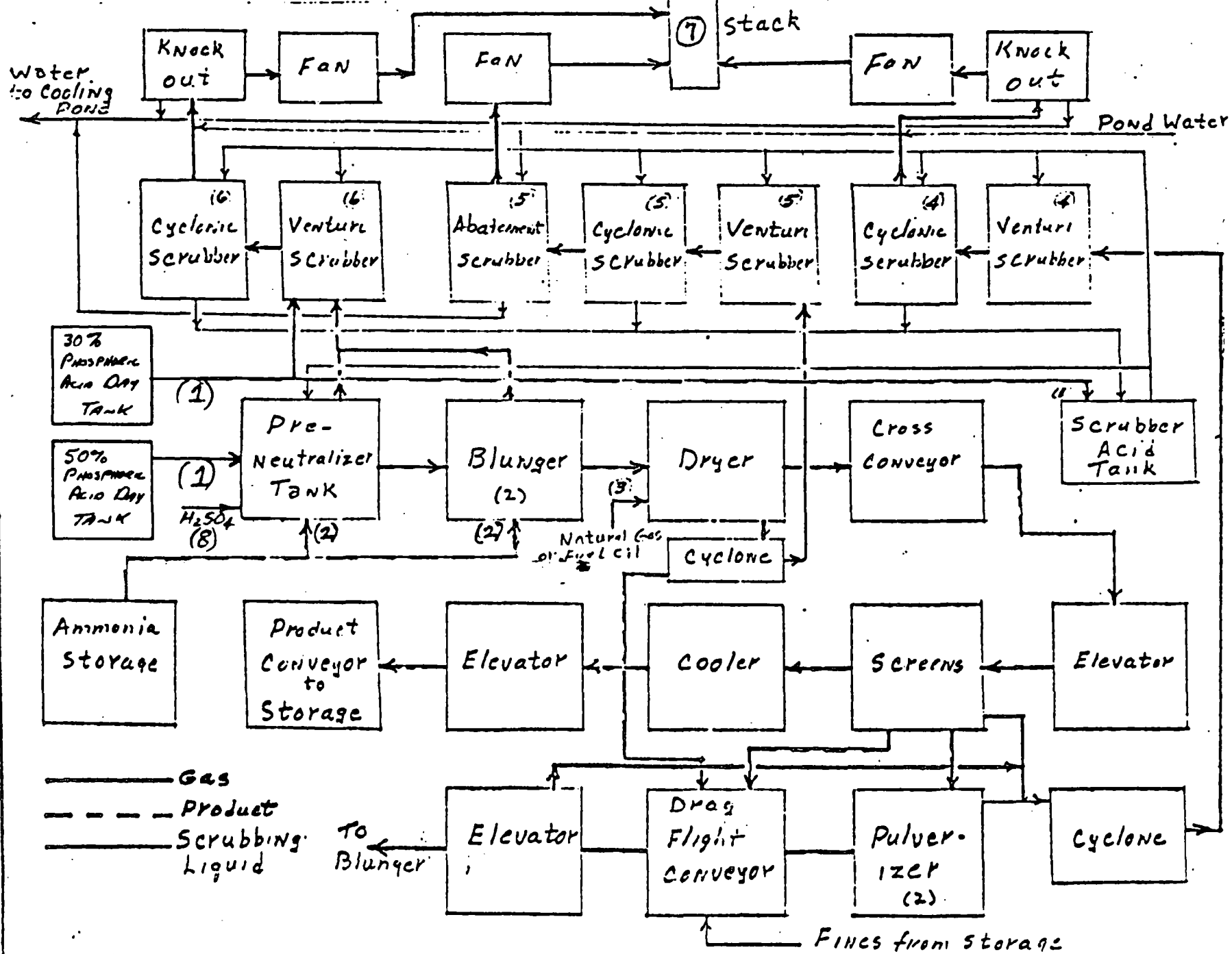
G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

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.

ATTACHMENT 2

DAP PRODUCTION USING A 30% - 50% SPLIT PHOSPHORIC ACID FEED

DRAWN BY  
 DATE  
 SCALE  
 REVISION  
 REVISION  
 REVISION  
 DIAMMONIUM PHOSPHATE PLANT  
 TITLE  
 FLOW DIAGRAM



————— Gas  
 - - - - - Product  
 ———— Scrubbing Liquid

To Blunger

Fines from storage

OCCIDENTAL OF FLORIDA  
 REV. NO.  
 CHANGE NO.  
 SHEET NO.

ATTACHMENT 1

