CM: P 303 004 564

File Copy

CARGILL FERTILIZER, INC.

8813 Hwy 41 South • Riverview, Florida 33569 • Telephone 813 — 677-9111 • TWX 810 — 876-0648 • Telex 52666 • FAX-813-671-6146

March 15, 1991 Certified Mail: 303 004 564

Mr. Clair Fancy, P.E.
Central Air Permitting
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

RE: Air Construction/Modification Permit Application
#3 Ammonium Phosphate Granulator, South Ammonium System
(AO29-152717)
#4 Ammonium Phosphate Granulator, South Ammonium System
(AO29-152718)
South Ammonium Phosphate Cooler
(AO29-152266)

Dear Mr. Fancy:

Enclosed are four certified copies of an air construction modification permit application for the above mentioned permits. Since the South Ammonium Cooler is common equipment to both the No. 3 and 4 Ammonium Phosphate Granulators (which are co-located in the same building structure), it is requested that one permit be issued for all three facilities. In an attempt to minimize delays, should you feel the South Ammonium Cooler to be separate from the manufacturing facility, we have enclosed two separate checks.

Should you have questions, or the need for further clarification, please call my office.

Sincerely,

Wesley C. Sassaman

Wesley C. Sassaman, REM
Environmental Specialist

cc: O. Morris
D. Jellerson, PE
J. Campbell, HCEPC/Check
P-8,9,10

Enclosures: Construction/Modification Permit Applications
Check FLDER $1000.00 (#079047)
Check FLDER $500.00 (#079144)
Check HCEPC $400.00 (#081630)
Check HCEPC $400.00 (#079101)

Willard Hanks 3-28-91 RBR
SW Dist 4-3-91 WMH

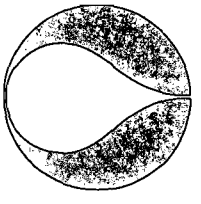
Barry
Willard

John R
~~Patty~~
Cindy

Effective March 1, 1991

GARDINIER, INC.

is proud to announce
its name is changed to:



CARGILL
FERTILIZER,
INC.

We will continue our past traditions of product quality, community involvement and technological innovation. Our new name will allow us to be more closely identified with our company owner, Cargill Incorporated, and to Cargill's Fertilizer Division.

No other aspects of our company will change. Our address will remain the same.

CARGILL FERTILIZER, INC.
8813 HIGHWAY 41 SOUTH
RIVERVIEW, FLORIDA 33569
(813) 677-9111

AC 29-194504
RE: 151258
3-25-91

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: #3 Ammonium Phosphate Granulator [ ] New[1] [x] Existing[1]

APPLICATION TYPE: [x] Construction [ ] Operation [X] Modification

COMPANY NAME: Cargill Fertilizer, Inc. COUNTY: Hillsborough

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) #3 Process Scrubber

SOURCE LOCATION: Street 8813 Hwy 41 South City Riverview

UTM: East 17-362.6 North 3082.4

Latitude 27 ° 51 ' 28 "N Longitude 82 ° 23 ' 15 "W

APPLICANT NAME AND TITLE: Ozzie Morris, Environmental Manager

APPLICANT ADDRESS: 8813 Hwy 41 South, Riverview, FL 33569

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Cargill Fertilizer, Inc.

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: O. D. Morris

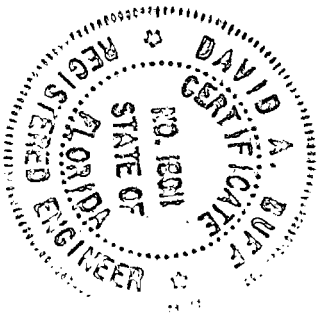
Ozzie Morris, Environmental Manager
Name and Title (Please Type)

Date: 3/15/91 Telephone No. (813) 677-9111

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 judgement, that

[1]See Florida Administration 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 David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 N.W. 57th St., Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 3/14/91 Telephone No. (904) 331-9000

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.

See Attachment A

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

Start of Construction upon permit issuance Completion of Construction 18 months after permit issuance

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.)

Conversion to acid scrubbing: $160,000

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

Permit A029-152717 Issued 9/28/89 Expires 6/8/94

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
If power plant, hrs/yr _____; if seasonal, describe: 8,500 hr/yr maximum

F. If this is a new source or major modification, answer the following questions.
(Yes or No) Not applicable

1. Is this source in a non-attainment area for a particular pollutant? _____
   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. _____
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? Yes
   a. If yes, for what pollutants? Particulates
   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.

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	N/A	N/A	53,116	1
Ammonia	N/A	N/A	6,721	2

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

1. Total Process Input Rate (lbs/hr): 59,837

2. Product Weight (lbs/hr): 54,200

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

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/hr	T/yr	
Particulate	5.0	21.25	0.3 lb/ton[5]	8.13	5.0	21.25	3
Fluoride	1.0	4.25	17-2.600 (3)(b)	Fluoride allocation	1.0	4.25	3
Ammonia	100	425	Current permi	t limit	100	425	3
Sulfur	0.0015	0.0064	N/A	N/A	0.0015	0.0064	3
Nitrogen	0.24	1.02	N/A	N/A	0.24	1.02	3
Carbon	0.049	0.21	N/A	N/A	0.049	0.21	3
VOCs	0.013	0.055	N/A	N/A	0.013	0.055	3

[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 with~~out~~ control (See Section V, Item 3).
[5]From F.A.C. Rule 17-2.650(2)(c)5.b.(i) - 0.3 lb/ton

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)
ARCO WM-350-RL and	Particulate	95%	Submicron	Design
Chemco venturi acid	Fluorides	95%	N/A	Design
scrubber (Existing)	Ammonia	95%	N/A	Design

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.0012	0.00244	2.5

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

Fuel Analysis:

Percent Sulfur:_____ Percent Ash:_____

Density: _____ lbs/gal Typical Percent Nitrogen:_____

Heat Capacity: 1025 Btu/scf BTU/lb _____ BTU/gal

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

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

Annual Average Not applicable Maximum _____

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

Scrubber water is recycled back into process.

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

Stack Height: 90 ft. Stack Diameter: 3.33 ft.

Gas Flow Rate: 35,000 ACFM 26,800 DSCFM Gas Exit Temperature: 140 °F.

Water Vapor Content: 13 % Velocity: 67.0 FPS

SECTION IV: INCINERATOR INFORMATION

Not applicable

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (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		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: _____

_____

_____

_____

_____

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.

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 ½" 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 ½" 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 (Examples: Copy of relevant portion of USGS topographic map).

8. An 8 ½" 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

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

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

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 Devices:

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 operate 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 operate within proposed levels:

4.

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:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

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

Not applicable

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.

*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^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.

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.

AC 29-194507
R#: 151258
03-25-91

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: #4 Ammonium Phosphate Granulator [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Cargill Fertilizer, Inc. COUNTY: Hillsborough

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) #4 Process Scrubber

SOURCE LOCATION: Street 8813 Hwy 41 South City Riverview

UTM: East 17-362.6 North 3082.4

Latitude 27 ° 51 ' 28 "N Longitude 82 ° 23 ' 15 "W

APPLICANT NAME AND TITLE: Ozzie Morris, Environmental Manager

APPLICANT ADDRESS: 8813 Hwy 41 South, Riverview, FL 33569

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Cargill Fertilizer, Inc.

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: E. O. Morris

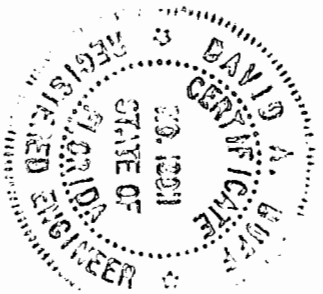
Ozzie Morris, Environmental Manager
Name and Title (Please Type)

Date: 3/15/91 Telephone No. (813) 677-9111

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 judgement, that

[1]See Florida Administration 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 David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 NW 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 3/14/91 Telephone No. (904) 331-9000

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.

See Attachment A

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

Start of Construction upon permit issuance Completion of Construction 18 months after permit issuance

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.)

Conversion to acid scrubbing: $160,000

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

A029-152718 Issued 9/28/89 Expires 6/8/94

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) Not Applicable

1. Is this source in a non-attainment area for a particular pollutant? _____
   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. _____
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? Yes
   a. If yes, for what pollutants? Particulate matter
   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.

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	N/A	N/A	53,116	1
Ammonia	N/A	N/A	6,721	2

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

1. Total Process Input Rate (lbs/hr): 59,837

2. Product Weight (lbs/hr): 54,200

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

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/hr	T/yr	
Particulate	5.0	21.25	0.3 lb/ton[5]	8.13	5.0	21.25	3
Fluoride	1.0	4.25	17-2.600 (3)(b)	Fluoride allocation	1.0	4.25	3
Ammonia	100	425	Current permi	t limit	100	425	3
Sulfur	0.0015	0.0064	N/A	N/A	0.0015	0.0064	3
Nitrogen	0.24	1.02	N/A	N/A	0.24	1.02	3
Carbon	0.049	0.21	N/A	N/A	0.049	0.21	3
VOCs	0.013	0.055	N/A	N/A	0.013	0.055	3

[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 with~~out~~ control (See Section V, Item 3).
[5]From F.A.C. Rule 17-2.650(2)(c)5.b.(i) - 0.3 lb/ton

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)
ARCO WM-350-RL and	Particulate	95%	Submicron	Design
Chemco venturi acid	Fluorides	95%	N/A	Design
scrubber (Existing)	Ammonia	95%	N/A	Design

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.0012	0.00244	2.5

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

Fuel Analysis:

Percent Sulfur:_____ Percent Ash:_____

Density: _____ lbs/gal Typical Percent Nitrogen:_____

Heat Capacity: 1025 Btu/scf BTU/lb _____ BTU/gal

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

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

Annual Average Not applicable Maximum _____

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

Scrubber water is recycled back into process.

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

Stack Height: 90 ft. Stack Diameter: 3.33 ft.

Gas Flow Rate: 35,000 ACFM 26,800 DSCFM Gas Exit Temperature: 140 °F.

Water Vapor Content: 13 % Velocity: 67.0 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (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		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: _____

_____

_____

_____

_____

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.

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 ½" 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 ½" 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 (Examples: Copy of relevant portion of USGS topographic map).

8. An 8 ½" 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

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

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

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 Devices:

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 operate 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 operate within proposed levels:

4.

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:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

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 Not applicable

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.

*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^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.

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.

AC 29-194508
R# 151258
3-25-91

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: South Ammonium Phosphate Cooler [ ] New[1] [x] Existing[1]

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

COMPANY NAME: Cargill Fertilizer, Inc. COUNTY: Hillsborough

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) South Ammonium Cooler Cyclone

SOURCE LOCATION: Street 8813 Hwy 41 South City Riverview

UTM: East 17-362.6 North 3082.4

Latitude 27 ° 51 ' 28 "N Longitude 82 ° 23 ' 15 "W

APPLICANT NAME AND TITLE: Ozzie Morris, Environmental Manager

APPLICANT ADDRESS: 8813 Hwy 41 South, Riverview, FL 33569

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Cargill Fertilizer, Inc.

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: E. O. Morris

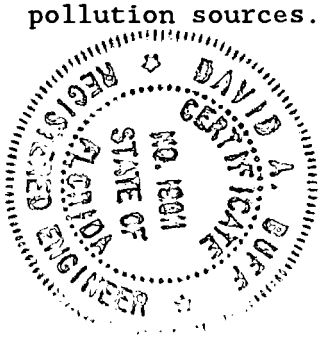
Ozzie Morris, Environmental Manager
Name and Title (Please Type)

Date: 3/15/91 Telephone No. (813) 677-9111

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 judgement, that

[1]See Florida Administration 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 David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 N.W. 57th St., Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 3/14/91 Telephone No. (904) 331-9000

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.

See Attachment A

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

Start of Construction upon permit issuance Completion of Construction 18 months after permit issuance

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.)

Modification to existing scrubber system: $25,000

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

A029-152266 Issued 10/27/88 Expires 10/14/93

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) Not applicable

1. Is this source in a non-attainment area for a particular pollutant? _____
   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. _____
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? Yes
   a. If yes, for what pollutants? Particulate matter
   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.

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		
Ammonium phosphate	Particulate	100	108,400	

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

1. Total Process Input Rate (lbs/hr): 108,400

2. Product Weight (lbs/hr): 108,400

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

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/hr	T/yr	
Particulate	12.0	51.0	0.6 lb/ton[5]	32.52	12.0	51.0	
Fluorides	1.0	4.25	17-2.600 (3)(b)	Fluoride allocation	1.0	4.25	

[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).

[5]Based on 17-2.650(2)(c)5.b.(iv) - 0.6 lb/ton

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)
Buell wetted wall	Particulate	+88%	Submicron	Estimate
Cyclones (2 existing)				

E. Fuels

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

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

Fuel Analysis:

Percent Sulfur:_____ 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.

Annual Average Not applicable Maximum _____

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

Wastewater from wet cyclones is returned to process.

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

Stack Height: 54 ft. Stack Diameter: 4.35 ft.

Gas Flow Rate: 45,000 ACFM 36,500 DSCFM Gas Exit Temperature: 125 °F.

Water Vapor Content: 10 % Velocity: 50.5 FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (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		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: _____

_____

_____

_____

_____

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.

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 ½" 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 ½" 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 (Examples: Copy of relevant portion of USGS topographic map).

8. An 8 ½" 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

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

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

[ ] Yes [ ] No

Contaminant	Rate or Concentration

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

Contaminant	Rate or Concentration

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

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

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 Devices:

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 operate 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 operate within proposed levels:

4.

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:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

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

Not applicable

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.

*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^2	_____ grams/sec

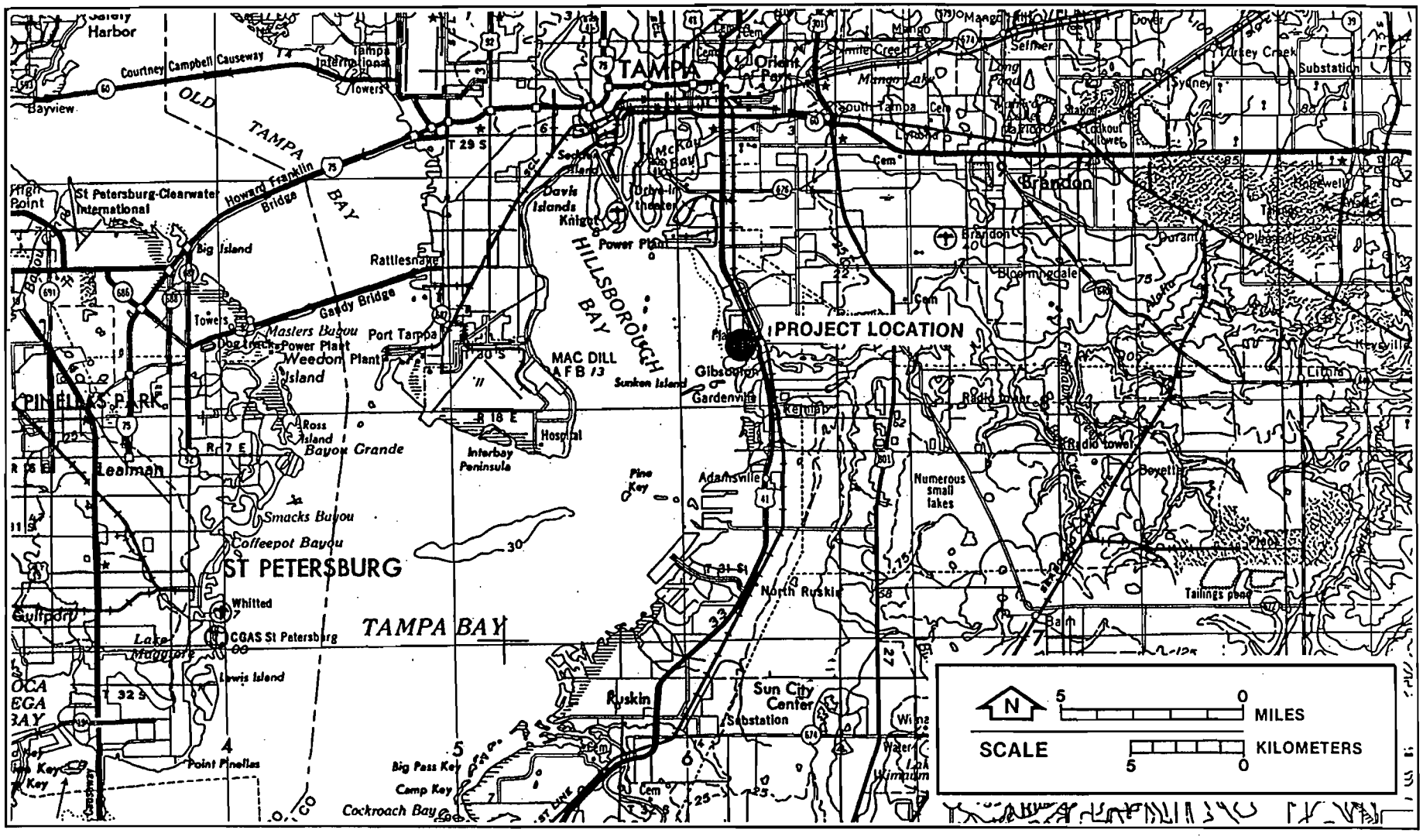
E. Emission Data Used in Modeling

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.

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.

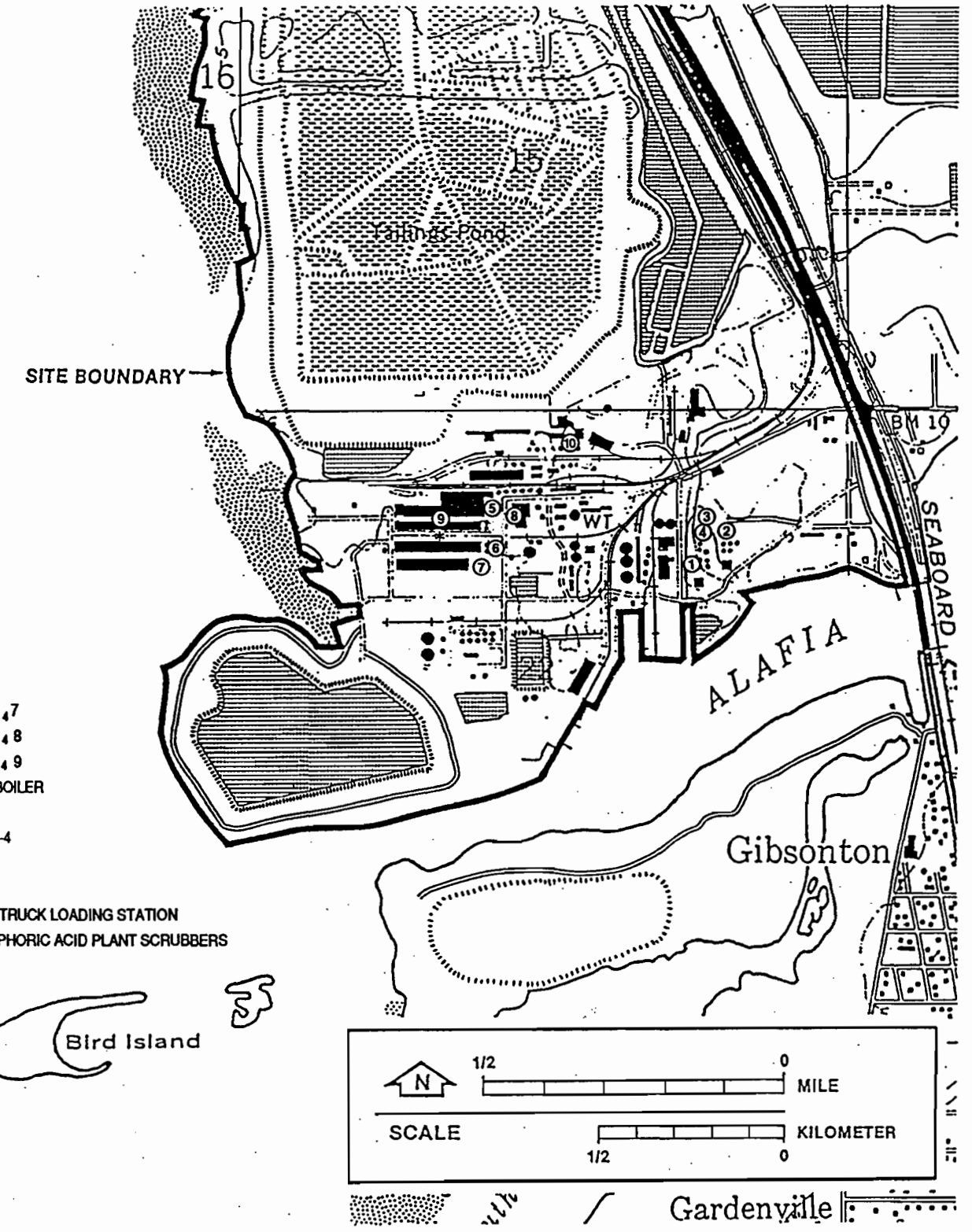
H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.



GENERAL LOCATION MAP OF CARGILL FERTILIZER, INC.

SOURCE: USGS, 1981.

KBN



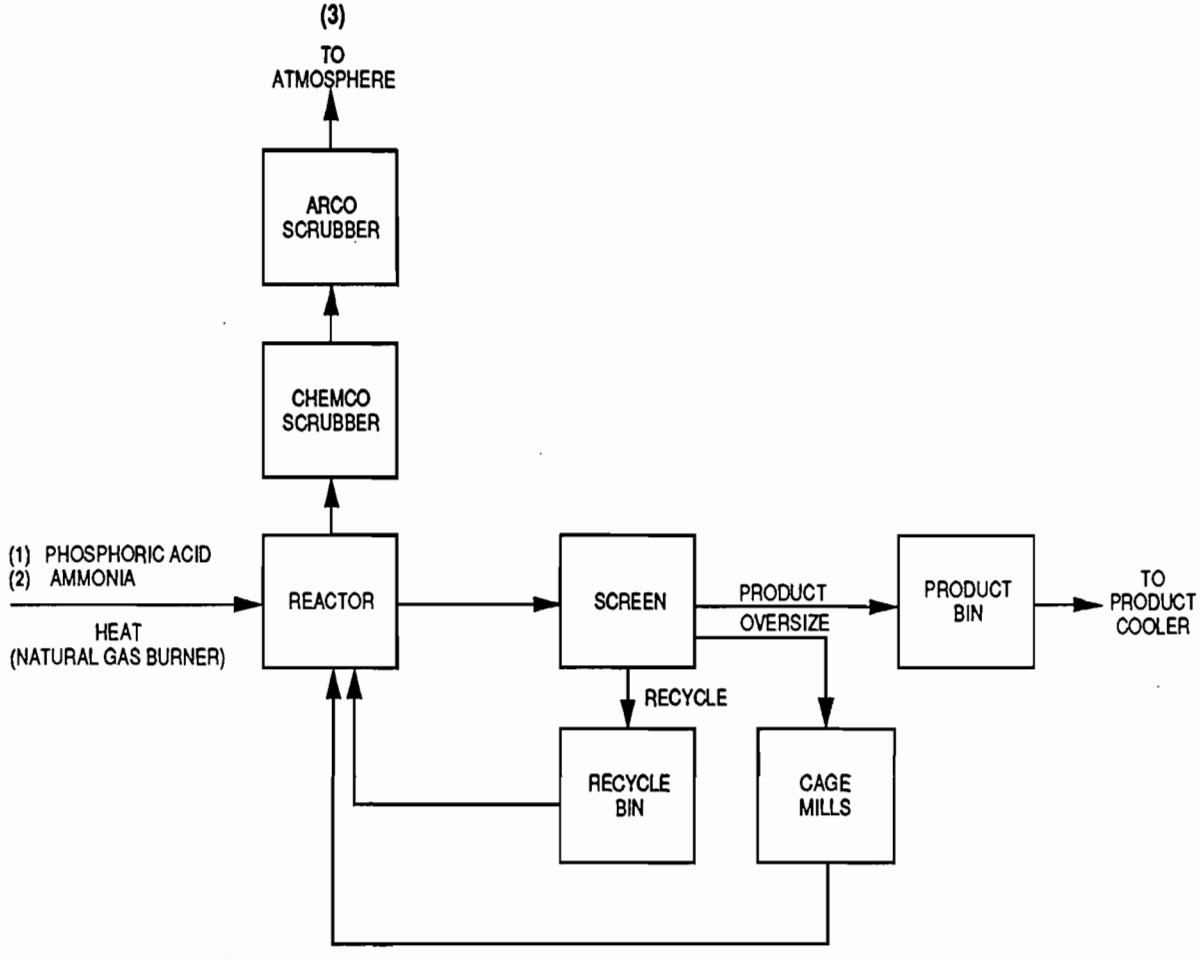
SITE LOCATION MAP OF CARGILL FERTILIZER, INC.

SOURCE: USGS, 1981.

KBN

NO. 3 AMMONIUM PHOSPHATE PLANT

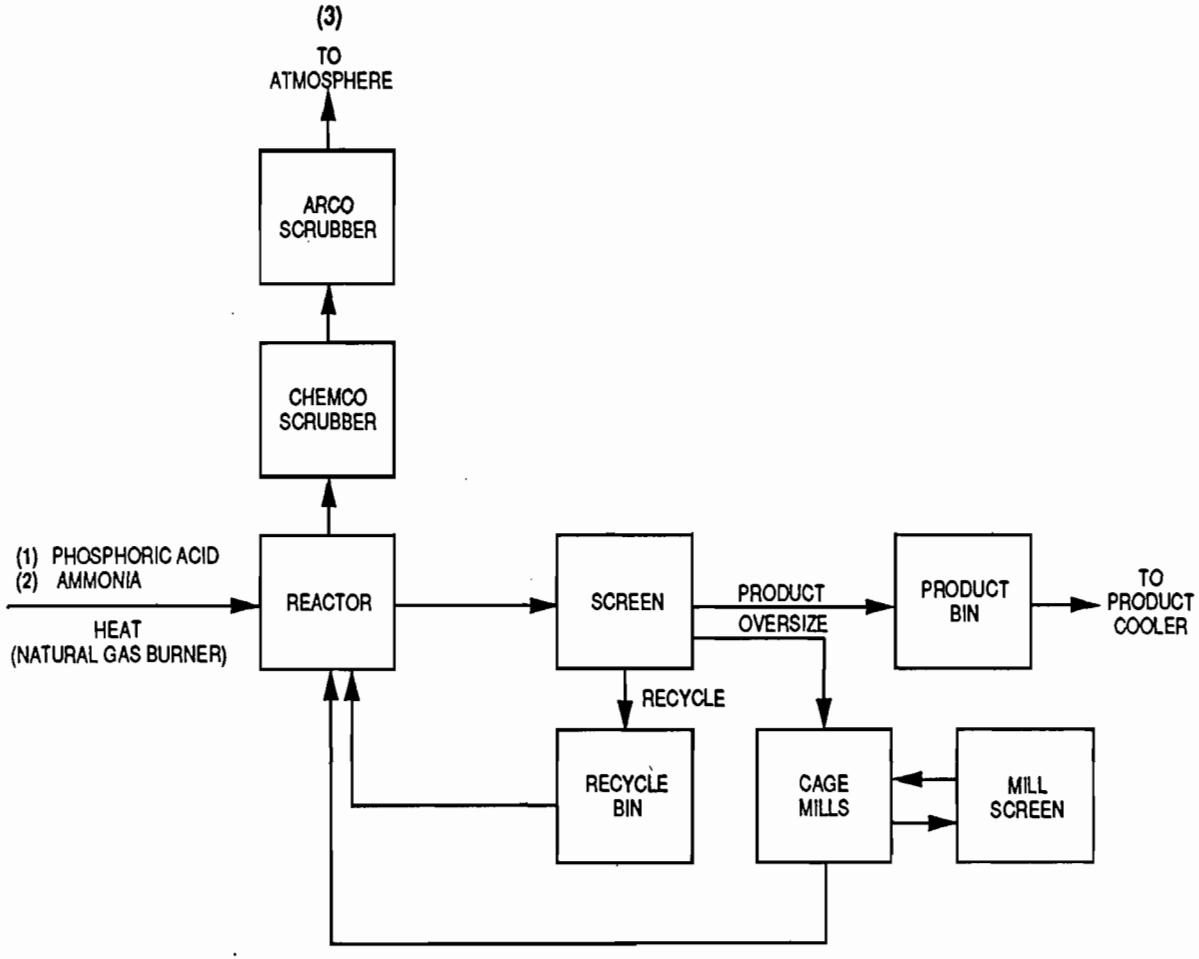
SIMPLIFIED FLOW DIAGRAM



KBN

NO. 4 AMMONIUM PHOSPHATE PLANT

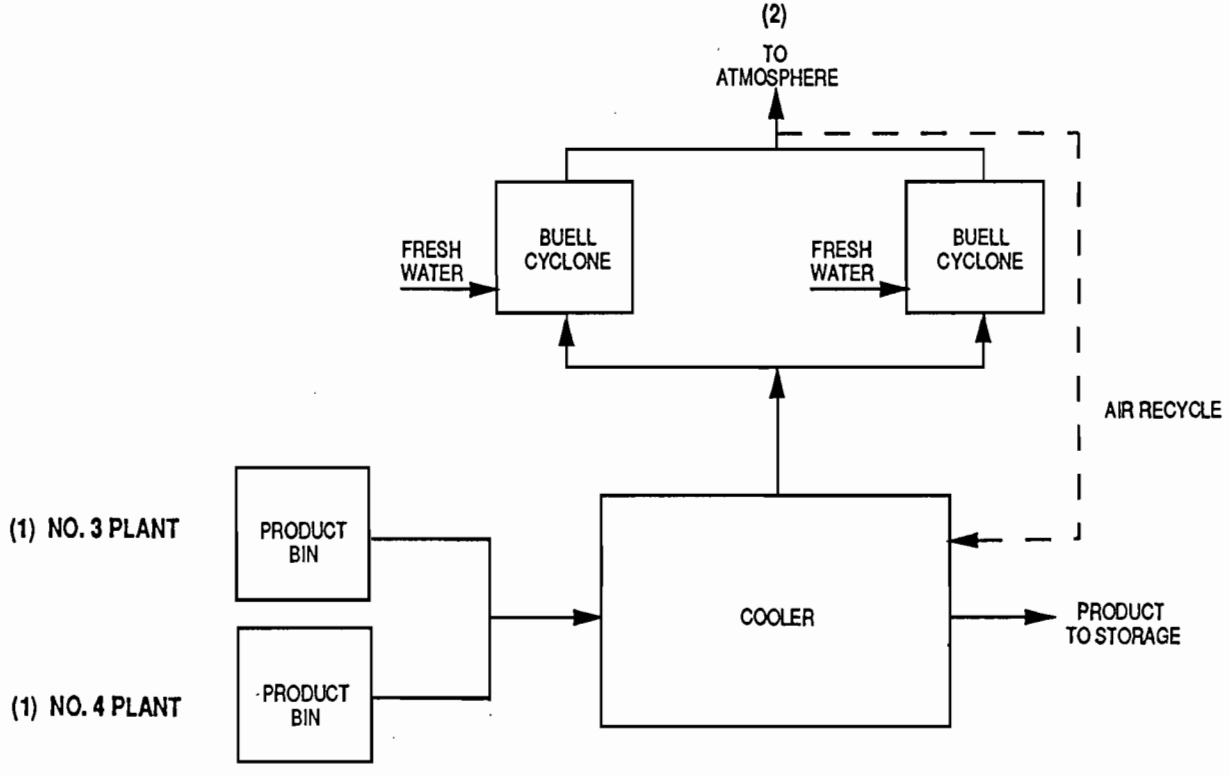
SIMPLIFIED FLOW DIAGRAM



KBN

AMMONIUM PHOSPHATE COOLER

SIMPLIFIED FLOW DIAGRAM



KBN

ATTACHMENT A

AMMONIUM PHOSPHATE PLANT

1.0 PROJECT DESCRIPTION

Cargill Fertilizer, Inc., currently operates a monoammonium phosphate plant at its existing phosphate fertilizer plant in Riverview, Florida, just south of Tampa. The MAP plant consists of two process units (No. 3 MAP and No. 4 MAP) and a process cooler. The No. 3 MAP plant currently is permitted for 19 tons per hour (TPH) of ammonium phosphate, while the No. 4 MAP plant is permitted for 21 TPH. Over the past year and a half, Cargill has made control improvements in several areas of the plant that have given the plant the capability to run at higher production rates, without increasing actual emissions. The expected production capability of the No. 3 MAP and No. 4 MAP plants is now 27.1 TPH of ammonium phosphate each, or 54.2 TPH total.

The changes occurred in four areas of the process and are listed below, along with the cost associated with the changes:

1.	Recycle control automation	$ 40,000
2.	Ammonia vaporizer stabilization	15,000
3.	Evacuation system retrofit	240,000
4.	Conversion to acid scrubbing on primary scrubber	315,000
	TOTAL	$610,000

The estimated total value of the No. 3 and No. 4 MAP plants is approximately $5,000,000. The total value of the changes amounted to about 12 percent of the value of the plants.

Each of the changes had a small impact on the operation, but when added together, the impact on the capabilities of each plant was significant. The changes are described in greater detail below.

1. Recycle Control Automation--The installation of relatively simple controllers and diverter gates in the product stream to automatically control the amount of recycle in the plant has

smoothed the operation of the material handling system to a point where it is now operating below its capacity and is steady. Ammonia and phosphoric acid flows also are steadier.

2. Ammonia Vaporizer Stabilization--The ammonia vaporizer is not part of the ammonium phosphate plant. The vaporizer vaporizes liquid ammonia before the ammonia enters the ammonium phosphate reactor vessel. Ammonia is a raw material used in the ammonium phosphate manufacturing process. Changes have been made to the ammonia vaporizer to decrease the heating surface area and to narrow the range of variability in controlling the temperature of the ammonia as it is introduced to the reactor. These modifications have reduced the temperature of the off-gases to the scrubber by about 20°F, making them easier to scrub. It also has resulted in a less dusty bed in the reactor, which in turn results in less particulate loading to the evacuation system. The lower temperature also has resulted in slightly less slippage of ammonia from the reaction bed into the scrubbing system.
3. Evacuation System Retrofit--The evacuation system in the MAP plant provides negative pressure to several dust-generating points within the plant (i.e., reactor, bucket elevators, mills, screens, etc.). The evacuation system had deteriorated over time and was in need of major maintenance and repair. This project was undertaken to completely update and resize the evacuation system ductwork for the plant. The effect of this project was to eliminate the entrance of large amounts of tramp air that entered the evacuation system through oversized ductwork, abandoned trunk lines, and poorly fitting inspection doors. This in-leakage of air limited the effectiveness of the dust-handling system by creating a higher-than-necessary load on the scrubbing system. Elimination of this excess air now enables the dust-handling system to remove much more particulate before it reaches the scrubbing system, thus allowing higher production rates while maintaining the same emission rates.

4. Conversion To Acid Scrubbing on Primary Scrubber--The Chemco scrubbers installed for the plants are used to control ammonia and particulate emissions. This particular project lent further stability and a measure of security to the scrubbing portion of the plant operation. While this system was effective at controlling ammonia emissions under normal operations, small upsets in the operation of the plant could lead to higher-than-desired ammonia emissions if not caught immediately as they happened. Attempts had been made previously to convert the system to acid scrubbing in the primary scrubber since acid has much greater capacity than water to absorb ammonia. Earlier problems with high opacity and lower-than-desired recirculation rates finally were overcome. The system is now operational and is able not only to capture much more of the ammonia than before at higher rates, but in the process, also has become more effective in controlling higher-than-desired ammonia emissions associated with upsets in the operation. This conversion to acid scrubbing was requested by the Hillsborough County EPC.

As a result of the four improvements working together, the No. 3 and No. 4 MAP plants now are capable of sustaining higher production rates while meeting the present permitted emission limits. The changes made as listed will allow the plants to meet the current emission limits at rates of up to 27.1 TPH each.

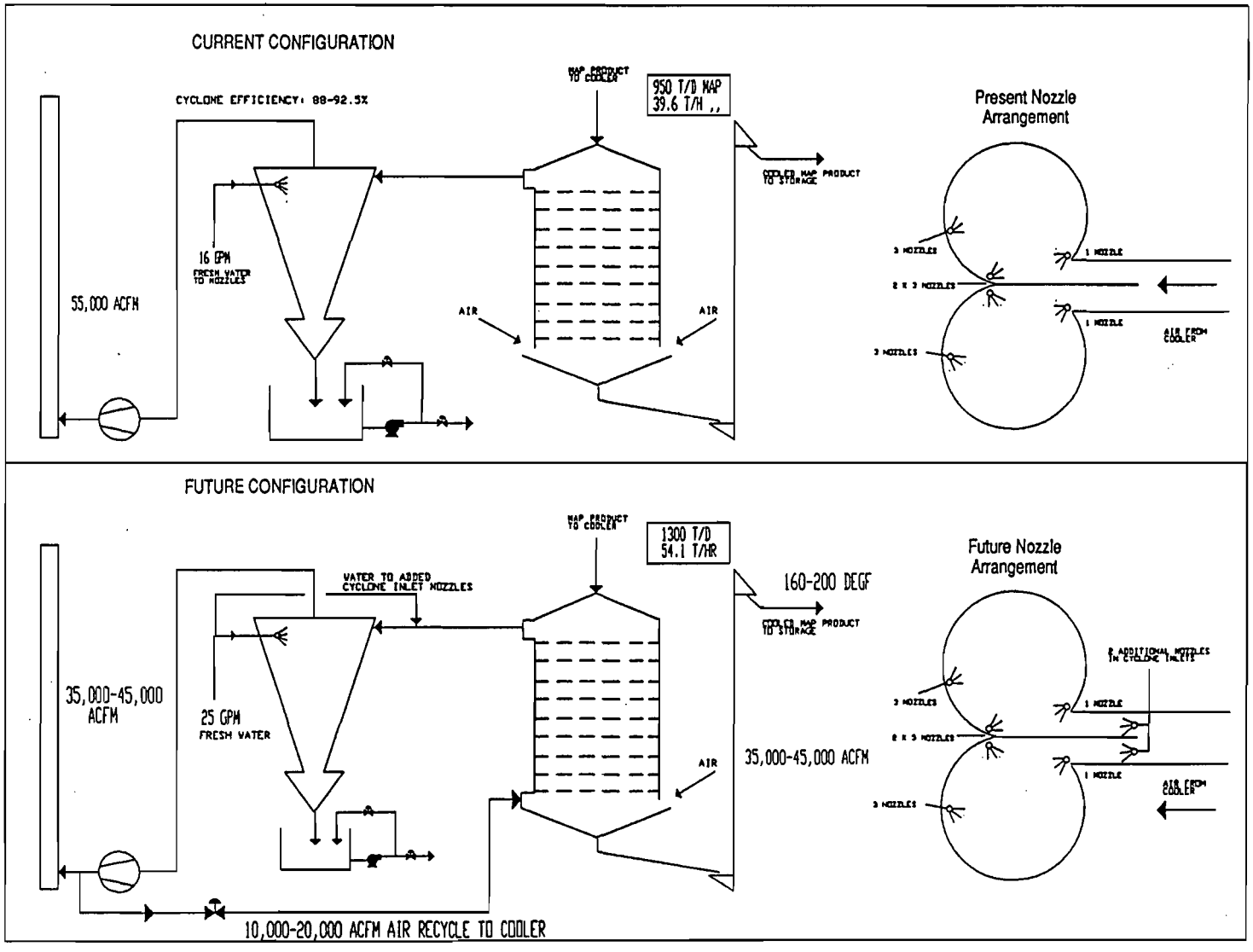
The changes made to the No. 3 and No. 4 MAP plants are considered to be routine repair, replacement, or maintenance of component parts of the plant. Also, the total cost of these changes does not exceed 50 percent of the total cost of a new plant; therefore, these changes should not be viewed as reconstruction. Most importantly, there will be no increase in permitted emission levels as a result of these changes.

The current allowable particulate matter (PM) emission rate for the No. 3 MAP is 5.7 pounds per hour (lb/hr), and this will be reduced to 5.0 lb/hr as part of this project. The allowable fluoride (Fl) emissions will remain at 1.0 lb/hr. For the No. 4 MAP, the current allowable PM emission rate is 6.3 lb/hr, and this also will be reduced to 5.0 lb/hr. The allowable Fl emission rate for the No. 4 MAP will remain at 1.0 lb/hr.

The two MAP plants are supported by a common product cooler. The cooler currently is permitted for a production rate of 38.5 TPH. It is proposed to raise the permitted production capacity of this cooler to 54.2 TPH in order to support the increased production capacity of the MAP plants. The cooler already is capable of achieving this production rate. No physical changes in the cooler will be necessary, and no capital expenditure will be required to achieve the higher production rate. However, the existing cooler/wet cyclone system will be modified to achieve better particulate control, which will result in a decrease in actual particulate emissions.

There will be two primary changes to the cooler and wet cyclone control device. The changes are depicted in the attached figure. First, the water flow to the existing spray nozzles will be increased, and two additional spray nozzles will be added. The current water flow to the nozzles is about 16 gallons per minute (GPM). This water flow will be increased to between 25 and 35 gpm.

Second, a portion of the exhaust gases leaving the wet cyclones will now be recirculated back to the cooler. The recycle rate will be in the range of 10,000 to 20,000 actual cubic feet per minute (acfm), reducing the stack exhaust flow from the current rate of about 55,000 acfm to a rate of 35,000 to 45,000 acfm. These changes will control PM emissions from the cooler to a level of 12.0 lb/hr or less at the maximum production rate of 54.2 TPH.



PRESENT AND FUTURE MAP COOLER SYSTEM ARRANGEMENT

KBN

There will be no increase in actual PM emissions (based on 1989-1990 Annual Operating Reports) or in permitted PM emission levels of the cooler as a result of these changes. The allowable particulate matter emission rate for the cooler is currently 23.1 lb/hr and 101.2 tons per year (TPY). This allowable level will be reduced to 12.0 lb/hr and 51.0 TPY. Allowable fluoride emissions will remain at 1.0 lb/hr.

Since allowable and actual emissions from the cooler will not increase, federal New Source Performance Standards should not apply to this source.

2.0 EMISSION ESTIMATES

2.1 NO. 3 MAP

2.1.1 Particulate Matter

The current permitted level of PM emissions for the No. 3 MAP plant is 5.7 lb/hr and 24.97 TPY. This level is based on 0.3 pounds per ton (lb/ton) of ammonium phosphate produced. The new level of allowable emissions is requested to be 5.0 lb/hr and 21.25 TPY (based on 8,500 hr/yr maximum operation). PM10 emissions are assumed equal to PM emissions for this process.

2.1.2 Fluorides

The current allowable for the plant is 1.0 lb/hr (4.38 TPY) based on the fluoride allocation for the plant. The requested allowable at the higher operating rate is 1.0 lb/hr and 4.25 TPY (based on 8,500 hr/yr).

2.1.3 Ammonia

The current allowable for the plant is 100 lb/hr (438 TPY). The requested allowable at the higher operating rate is 100 lb/hr and 425 TPY (based on 8,500 hr/yr).

2.1.4 Other Pollutants

Products of combustion are generated from a small, natural-gas-fired burner that supplies heat to the process. The burner has a maximum heat input of 2.5×10^6 British thermal units per hour (Btu/hr), resulting in a maximum natural gas consumption of 2,440 standard cubic feet per hour (scfh). Emissions of sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOCs) are based on AP-42 emission factors:

SO_2: 2,440 scfh x 0.6 lb/10^6 scf = 0.0015 lb/hr

0.0015 lb/hr x 8,500 hr/yr / 2,000 lb/ton = 0.0064 TPY

NO_x: 2,440 scfh x 100 lb/10^6 scf = 0.24 lb/hr

0.24 lb/hr x 8,500 hr/yr / 2,000 lb/ton = 1.02 TPY

CO: 2,440 scfh x 20 lb/10^6 scf = 0.049 lb/hr

0.049 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 0.21 TPY

VOC: 2,440 scfh x 5.3 lb/10^6 scf = 0.013 lb/hr

0.013 lb/hr x 8,500 hr/yr / 2,000 lb/ton = 0.055 TPY

2.2 NO. 4 MAP

2.2.1 Particulate Matter

The current permitted level of PM emissions for the No. 4 MAP plant is 6.3 lb/hr and 27.59 TPY. This level is based on 0.3 lb/ton of ammonium phosphate produced. The new level of allowable emissions is requested to be 5.0 lb/hr and 21.25 TPY (based on 8,500 hr/yr maximum operation). PM10 emissions are assumed equal to PM emissions for this process.

2.2.2 Fluorides

The current allowable for the plant is 1.0 lb/hr (4.38 TPY) based on the fluoride allocation for the plant. The requested allowable at the higher operating rate is 1.0 lb/hr and 4.25 TPY (based on 8,500 hr/yr).

2.2.3 Ammonia

The current allowable for the plant is 100 lb/hr (438 TPY). The requested allowable at the higher operating rate is 100 lb/hr and 425 TPY (based on 8,500 hr/yr).

2.2.4 Other Pollutants

Products of combustion are generated from a small, natural-gas-fired burner that supplies heat to the process. The burner has a maximum heat input of 2.5 x 10^6 Btu/hr, resulting in a maximum natural gas consumption of 2,440 scfh. Emissions of SO_2, NO_x, CO, and VOCs are based on AP-42 emission factors:

SO_2: 2,440 scfh x 0.6 lb/10^6 scf = 0.0015 lb/hr

0.0015 lb/hr x 8,500 hr/yr / 2,000 lb/ton = 0.0064 TPY

NO_x: 2,440 scfh x 100 lb/10^6 scf = 0.24 lb/hr

0.24 lb/hr x 8,500 hr/yr / 2,000 lb/ton = 1.02 TPY

CO: 2,440 scfh x 20 lb/10^6 scf = 0.049 lb/hr

0.049 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 0.21 TPY

VOC: 2,440 scfh x 5.3 lb/10^6 scf = 0.013 lb/hr

0.013 lb/hr x 8,500 hr/yr / 2,000 lb/ton = 0.055 TPY

2.3 MAP COOLER

2.3.1 Particulate Matter

The current permitted level of PM emissions from the MAP Cooler is 23.1 lb/hr and 101.2 TPY. This level is based on 0.6 lb/ton of ammonium phosphate produced. The new level of allowable emissions is requested to be 12.0 lb/hr and 51.0 TPY. PM10 emissions are assumed equal to PM emissions for this process.

2.3.2 Fluorides

The current allowable for the plant is 1.0 lb/hr (4.38 TPY) based on the fluoride allocation for the plant. The requested allowable at the higher operating rate is 1.0 lb/hr and 4.25 TPY (based on 8,500 hr/yr).

3.0 CONSTRUCTION/OPERATING PERMITS

Because of the similar nature of the No. 3 and No. 4 MAP plants and the sharing of a common product cooler, it is requested that a single construction permit and a single operating permit be issued for the MAP plant (i.e., No. 3 and No. 4 MAP units and cooler). These sources currently are permitted under separate operating permits. This action will reduce the paperwork for both FDER and Cargill and will result in simplification and more efficient handling of permit requirements.

4.0 APPLICABILITY OF NEW SOURCE REVIEW

The Cargill phosphate fertilizer plant is located in an area designated as nonattainment for total suspended particulate (TSP) and for ozone. New source review, either for prevention of significant deterioration (PSD) or nonattainment, would apply to the modification if an increase in emissions greater than the significant emission rate for any pollutant should occur as a result of the modification. Significant emission rates are defined in Table 500-2 of Rule 17-2.500, Florida Administrative Code. Also considered in determining the net increase in emissions are any contemporaneous increases or decreases in emissions occurring at the facility within the past 5 years.

In order to determine if a net increase in emissions will occur as a result of the proposed modification, it is first necessary to define the contemporaneous emission increases and decreases. Presented in Table 4-1 are all construction permits issued for Cargill (formerly Gardinier) within the past 5 years. For each permit, the documented net change in emissions is shown. Also shown are the emissions associated with a permit application recently submitted to FDER for the sodium silicofluoride bagging operation. The total contemporaneous emission change for PM is a decrease of 7.35 TPY; for Fl, a decrease of 26.01 TPY; and for sulfur dioxide, a decrease of 98.9 TPY.

In the case of SO_2, NO_x, CO, and VOC, the maximum total emissions from the MAP plant are 1.0 TPY or less, well below the significant emission rates for these pollutants. As a result, PSD or nonattainment new source review does not apply for these pollutants.

In the case of PM and Fl, the current baseline emissions must be established to determine if a significant net emission increase will occur. The baseline emissions are summarized for the MAP plant in Table 4-2. These are based on the Annual Operating Reports submitted to FDER. Also shown are the proposed maximum PM and Fl emissions from the MAP sources and

Table 4-1. History of Construction Permits at Gardinier, Inc. (now Cargill Fertilizer, Inc.)

Date	Project	PM (TPY) Previous Actual	PM (TPY) Permitted Maximum	PM (TPY) Net Change	Fluoride (TPY) Previous Actual	Fluoride (TPY) Permitted Maximum	Fluoride (TPY) Net Change	SO_2 (TPY) Previous Actual	SO_2 (TPY) Permitted Maximum	SO_2 (TPY) Net Change
5/29/87	No. 8 Sulfuric Acid expansion (2,500 TPD) AC29-130371; PSD-FL-118	–	–	–	–	–	–	1,606.0	1,826.4	219.0
10/14/87	No. 5 DAP Plant Expansion AC29-135083	100.7[a]	87.6	-13.1	43.3[a]	14.5	-28.8	238.3	139.4	-98.9
11/3/87	Dock Conveying System AC29-136776	7.7	13.44	5.74	–	–	–	–	–	–
1/25/88	Vessel Loading-Phosphate Products AC29-140201	10.1	7.4	-2.7	–	–	–	–	–	–
2/3/89	Phosphoric Acid Clarifier/Stg. Tank AC29-156206	–	–	–	0.0	0.0053	0.0053	–	–	–
4/20/90	GTSP Truck Loading AC29-175044	0.0	0.94	0.94	–	–	–	–	–	–
2/91	Phosphoric Acid Rate Increase AC29-186726	–	–	–	7.51	10.29	2.78	–	–	–
1/91 (Applied)	Na_2SiF_6 Bagging	0.05	1.82	1.77	–	–	-	–	–	–
			Total =	-7.35		Total =	-26.01		Total =	-98.9[b]

[a]Includes emissions from sources to be shut down.

[b]Total change since last PSD for SO_2 was issued.

Note: TPY = Tons per year.

Table 4-2. Net PM and Fl Emission Increase, MAP Plant Modification

	No. 3 MAP	No. 4 MAP	MAP Cooler	Total
PM/PM10 (TPY)				
1. Baseline Emissions[a]				
1989	2.29	3.44	61.15	66.88
1990	4.68	13.75	61.60	80.03
Average	3.49	8.60	61.38	73.46
2. Future Maximum Emissions				
	21.25	21.25	51.0	93.50
3. Previous Contemporaneous Emissions				-7.35
4. Net Change (2.-1.-3.)				12.69
Fluorides (TPY)				
1. Baseline Emissions[a]				
1989	0.89	0.65	0.34	1.88
1990	1.66	2.98	1.38	6.02
Average	1.28	1.82	0.86	3.95
2. Future Maximum Emissions	4.25	4.25	4.25	12.75
3. Previous Contemporaneous Emissions				-26.01
4. Net Change (2.-1.-3.)				-17.21

>15TPY
20.04TPY

[a]Based on Annual Operating Reports submitted to FDER.

the previous contemporaneous emission changes (from Table 4-1). The total net change in emissions is determined by taking the future maximum emissions, in TPY, minus the baseline emissions, plus the previous contemporaneous emissions. In this case, since the previous contemporaneous emissions are a net decrease, they were subtracted.

The net change in PM/PM10 emissions as a result of the proposed modification is 12.69 TPY, which is below the significant emission rate of 15 TPY. The net change in Fl emissions is -17.21 TPY, caused by a previous reduction in Fl emissions. As a result, neither PM/PM10 or Fl is subject to new source review.

To Paula 1:50

Check Sheet

Company Name: Cargill Fertilizer, Inc.
Permit Number: ~~Hillsborough County~~ AC 29-194504, -07, & 08
PSD Number:
County: Hillsborough County.
Permit Engineer:
Others involved:

AO Permits # AO29-152718
AO29-152717
AO29-152266

Application:
- [x] Initial Application
- [x] Incompleteness Letters
- [x] Responses
- [ ] Final Application (if applicable)
- [ ] Waiver of Department Action
- [ ] Department Response

— 11x17 in APP
— " in TE & PD
— " in Final
4 " in P.P.C.

Intent:
- [x] Intent to Issue
- [x] Notice to Public
- [x] Technical Evaluation
- [ ] BACT Determination
- [3] Unsigned Permit

Attachments:
- [ ]
- [ ]
- [ ]

- [ ] Correspondence with:
  - [ ] EPA
  - [ ] Park Services
  - [ ] County
  - [ ] Other
- [x] Proof of Publication
- [ ] Petitions - (Related to extensions, hearings, etc.)

Final Determination:
- [x] Final Determination
- [3] Signed Permit
- [ ] BACT Determination

Post Permit Correspondence:
- [ ] Extensions
- [x] Amendments/Modifications
- [ ] Response from EPA
- [ ] Response from County
- [ ] Response from Park Services

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

October 7, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Amendments to Permits AC 29-194504, 29-194507, & 29-194508
MAP Plant

The Department is in receipt of your December 26, 1991, January 31, 1992, and July 8, 1992, letters requesting the referenced construction permits for the modification of the south monoammonium phosphate plant be amended to allow a 9.3% increase in the permitted production rates without any increase in allowable emissions. This request is acceptable and the referenced permits are amended as follows:

FROM:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using 14.0 TPH P_2O_5 (approximately 26.6 TPH phosphoric acid) and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 9: Production shall not exceed 27.1 TPH MAP. DAP shall not be produced by this plant.

Specific Condition No. 10: Phosphoric acid input to the plant shall not exceed 14.0 TPH P_2O_5 (approximately 26.6 TPH of phosphoric acid).

Specific Condition No. 11: Ammonia input to the plant shall not exceed 3.4 TPH.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 54.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 8: Production shall not exceed 54.2 TPH MAP.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted

capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

TO:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 29.6 TPH of monoammonium phosphate using 15.3 TPH P_2O_5 and 3.73 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 9: Production shall not exceed 29.6 TPH MAP. DAP shall not be produced by this plant.

Specific Condition No. 10: Phosphoric acid input to the plant shall not exceed 15.3 TPH P_2O_5.

Specific Condition No. 11: Ammonia input to the plant shall not exceed 3.73 TPH.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (25.4-28.2 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an

external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 59.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes replacement of the existing wet cyclones with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 8: Production shall not exceed 59.2 TPH MAP.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (53.3-59.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

A copy of this letter shall be filed with the referenced construction permits and shall become a part of those permits.

Sincerely,

Howard L. Rhodes
Director
Division of Air Resources
Management

HLR/WH/plm

Attach: Cargill's December 26, 1991, letter
Cargill's January 31, 1992, letter
Cargill's July 8, 1992, letter

cc: B. Thomas, SWD
J. Campbell, EPCHC
J. Harper, EPA
B. Mitchell, NPS
D. Buff, P.E.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To _____ Location: _____
To _____ Location: _____
To: _____ Location: _____
From: _____ Date: _____

Interoffice Memorandum

TO: Howard L. Rhodes

FROM: C. H. Fancy

DATE: October 7, 1992

SUBJ: Amendments to Construction Permits AC 29-194504, 29-194507, and 29-194508; Cargill Fertilizer, Inc.

Attached for your approval and signature is a letter amending the project descriptions and certain specific conditions of the above referenced construction permits to allow a 9.3% increase in the permitted monoammonium phosphate production rates without any increase in allowable fluoride and particulate matter emissions. This has been sent out as a draft, put on public notice, and is now ready for signature.

The Bureau recommends approval of this amendment.

CHF/WH/plm

Attachment

P 062 921 898

Receipt for Certified Mail

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

UNITED STATES POSTAL SERVICE

Sent to Ozzie Morris	
Street and No. Cargill Dept.	
P.O., State and ZIP Code Riverview, FL.	
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 10-12-92	

AC 29-194504
507
508

PS Form 3800, June 1991

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.
3. Article Addressed to:
Ozzie Morris, Env. Mgr.
Cargill Fertilizer
8813 Hwy 41 South
Riverview, FL 33569

4. Type of Service:
☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail

Article Number
P062 921 898

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

CARGILL FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

AIRBORNE 45097 79186

September 16, 1992

Mr. Clair Fancy
Florida Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, FL 32399

Subject: Proof of Publication
Notice of Intent to Issue
Modifications to Permits for
Cargill Fertilizer, Inc. to
Increase the Production Rate of
Ammonium Phosphate Facilities
AC29-194504, AC29-194507 & AC29-194508

Gentlemen:

You will find enclosed Proof of Publication as required by Florida State Department of Environmental Regulation following receipt of an application for above listed permits from Cargill Fertilizer, Inc.

If there are any questions, please contact me.

Sincerely,

David B. Jellerson

David B. Jellerson
Environmental Supervisor

/dh

File: P-8, P-9, P-10
cc: M. Hanks
B. Thomas, SWD
J. Campbell, EPCHC

THE TAMPA TRIBUNE

Published Daily
Tampa, Hillsborough County, Florida

State of Florida
County of Hillsborough } ss.

Before the undersigned authority personally appeared R. Putney, who on oath says that he is Accounting Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

in the matter of NOTICE OF INTENT TO ISSUE

was published in said newspaper in the issues of 9/4/92

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa, in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

R Putney

Sworn to and subscribed before me, this 10 *day of* SEPTEMBER, 92 *A.D. 19*

Gregg

GREGG S.
Notary Public,
My comm. expir
No. CC

(SEAL)

The modification request is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida
32399-2400
Department of Environmental Regulation
Southwest District
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347
Environmental Protection Commission of Hillsborough County
1900 - 9th Avenue
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

4195 9/4/92

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF INTENT TO ISSUE MODIFICATIONS OR PERMITS

The Department of Environmental Regulation hereby gives notice of its intent to issue modifications to the permits (AC 29-194504, 29-194507, and 29-194508) for the south monoammonium phosphate plant to Cargill Fertilizer, Inc., 8813 Highway 41 South, Riverview, Hillsborough County, Florida 33569. The modifications will allow Cargill to increase production of this plant by 9.3%. No increase in permitted emissions are authorized by these modifications.

The Department is issuing this Intent to Issue Modifications of Permits to satisfy requirements for the federal enforceability of the modified production rate.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

COMMISSION
PHYLLIS BUSANSKY
JOE CHILLURA
PAM IORIO
SYLVIA KIMBELL
JAN KAMINIS PLATT
JAMES D. SELVEY
ED TURANCHIK

FAX (813) 272-5157

ENVIRONMENTAL PROTECTION COMMISSION
HILLSBOROUGH COUNTY

ROGER P. STEWART
EXECUTIVE DIRECTOR
ADMINISTRATIVE OFFICES
AND
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

August 25, 1992

Mr. Preston Lewis
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Modification of AC29-194504, AC29-194507 and AC29-194508
Modification of AC29-196763

Dear Mr. Lewis:

In reference to the modification of Permit Nos. AC29-194504, AC29-194507 and AC29-194508 (please refer to area marked as "A" in the attachment), I suggest we observe a consistency in specifying the accuracy up to one decimal place or two decimal places. Your choice is acceptable to me. There are text writing errors/repetition (refer to areas marked as "B" and "C" in attachment). Correction is requested.

I have no comment to offer for the modification of Permit No. AC29-196763.

Sincerely,

Bkalra

Ben Kalra
Air Permit Engineer

bm
cc: W. Hanks
B. Thomas, SW Dist.

DRAFT

external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 59.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes ~~replacement of the existing wet cyclones to be followed by~~ replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 8: Production shall not exceed 59.2 TPH MAP.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, ~~and~~ fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (53.3-59.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the

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capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

TO:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 29.61 TPH of monoammonium phosphate using 15.3 TPH P_2O_5 and 3.73 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

(A)

29.61

Specific Condition No. 9: Production shall not exceed 29.6 TPH MAP. DAP shall not be produced by this plant.

Specific Condition No. 10: Phosphoric acid input to the plant shall not exceed 15.3 TPH P_2O_5.

Specific Condition No. 11: Ammonia input to the plant shall not exceed 3.73 TPH.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (25.4-28.2 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an

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proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

A copy of this letter shall be filed with the referenced construction permits and shall become a part of those permits.

Sincerely,

Howard L. Rhodes
Interim Director
Division of Air Resources
Management

HLR/WH/plm

Attach: Cargill's December 26, 1991, letter
Cargill's January 31, 1992, letter
Cargill's July 8, 1992, letter

cc: B. Thomas, SWD
J. Campbell, EPCHC
J. Harper, EPA
C. Shaver, NPS
D. Buff, P.E.

DRAFT

Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this

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external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 59.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes replacement of the existing wet cyclones to be followed by replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 8: Production shall not exceed 59.2 TPH MAP.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, and fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (53.3-59.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the

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capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

TO:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 29.61 TPH of monoammonium phosphate using 15.3 TPH P_2O_5 and 3.73 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 9: Production shall not exceed 29.6 TPH MAP. DAP shall not be produced by this plant.

Specific Condition No. 10: Phosphoric acid input to the plant shall not exceed 15.3 TPH P_2O_5.

Specific Condition No. 11: Ammonia input to the plant shall not exceed 3.73 TPH.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (25.4-28.2 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an

DRAFT

Specific Condition No. 11: Ammonia input to the plant shall not exceed 3.4 TPH.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 54.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 8: Production shall not exceed 54.2 TPH MAP.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

August 11, 1992

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Amendments to Permits AC 29-194504, 29-194507, & 29-194508
MAP Plant

The Department is in receipt of your December 26, 1991, January 31, 1992, and July 8, 1992, letters requesting the referenced construction permits for the modification of the south monoammonium phosphate plant be amended to allow a 9.3% increase in the permitted production rates without any increase in allowable emissions. This request is acceptable and the referenced permits are amended as follows:

FROM:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using 14.0 TPH P_2O_5 (approximately 26.6 TPH phosphoric acid) and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 9: Production shall not exceed 27.1 TPH MAP. DAP shall not be produced by this plant.

Specific Condition No. 10: Phosphoric acid input to the plant shall not exceed 14.0 TPH P_2O_5 (approximately 26.6 TPH of phosphoric acid).

petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The modification request is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Southwest District
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

Environmental Protection Commission
of Hillsborough County
1900 - 9th Avenue
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE MODIFICATIONS OF PERMITS

The Department of Environmental Regulation hereby gives notice of its intent to issue modifications to the permits (AC 29-194504, 29-194507, and 29-194508) for the south monoammonium phosphate plant to Cargill Fertilizer, Inc., 8813 Highway 41 South, Riverview, Hillsborough County, Florida 33569. The modifications will allow Cargill to increase production of this plant by 9.3%. No increase in permitted emissions are authorized by these modifications. The Department is issuing this Intent to Issue Modifications of Permits to satisfy requirements for the federal enforceability of the modified production rate.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The

intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 8-12-92 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk 8-12-92
Date

Copies furnished to:
B. Thomas, SWD
J. Campbell, EPCHC
J. Harper, EPA
C. Shaver, NPS
D. Buff, P.E.

of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
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(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permits by:

Mr. Ozzie Morris
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

DER File No. AC 29-194504
AC 29-194507
AC 29-194508
Hillsborough County

/

INTENT TO ISSUE

The Department of Environmental Regulation gives notice of its intent to issue permits (copies attached) for the proposed projects as detailed in the applications specified above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Cargill Fertilizer, Inc., applied on July 20, 1992, to the Department of Environmental Regulation for modifications of the referenced construction permits for the south monoammonium phosphate plant. The modifications would authorize an increase in production without any increase in the allowable emissions. The plant is located in Riverview, Hillsborough County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, Florida Statutes and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

August 11, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Attached is one copy of an Amendments to Construction Permits for your south ammonium phosphate plant.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Preston Lewis of the Bureau of Air Regulation.

Sincerely,

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

CHF/WMH

cc: Bill Thomas, SWD
Jerry Campbell, EPCHC

P 062 921 878

Receipt for Certified Mail

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

UNITED STATES POSTAL SERVICE

Sent to Ozzie Morris	
Street and No. Cargill Fert.	
P.O. State and ZIP Code Riverview, Fl	
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 8-12-92	

AC 29-194504
" 507
" 508

PS Form 3800, June 1991

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☐ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.
3. Article Addressed to:
Ozzie Morris, Env. Mgr
Cargill Fertilizer, Inc
8813 Hwy 41 South
Riverview, Fl 33569

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number P 062 921 878

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery 8-14-92

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

July 8, 1992 CERTIFIED MAIL: 723 750 714

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permits: No. 3 MAP AC29-194504
No. 4 MAP AC29-194507
MAP Cooler AC29-194508
No. 5 DAP AC29-196763, PSD-FL-178

Dear Mr. Fancy,

As you are aware, there have been some questions raised regarding the procedures used in recent modifications to the above-referenced permits. Therefore, as per your letter dated May 4, 1992 (copy attached), please accept this letter as a revised permit modification request to increase permitted production rates of the above-referenced sources as follows:

Permit AC29-196763 - Increase the allowable production input rate of the No. 5 Diammonium Phosphate Plant to 73.5 TPH P_2O_5.

Permits AC29-194504 (No. 3 MAP), AC29-194507 (No. 4 MAP) and AC29-194508 (MAP Cooler) - Increase the total allowable production rate to 59.2 TPH (29.6 TPH/Unit). This will require 30.6 TPH P_2O_5 input and 7.5 TPH of ammonia.

As we previously indicated, we are willing to accept the increased production rates without any associated increase in maximum allowable hourly or annual emissions.

Should you have any questions or require additional information, please feel free to call me or David Buff at 813/671-6207 or 904/331-9000, respectively.

Sincerely,

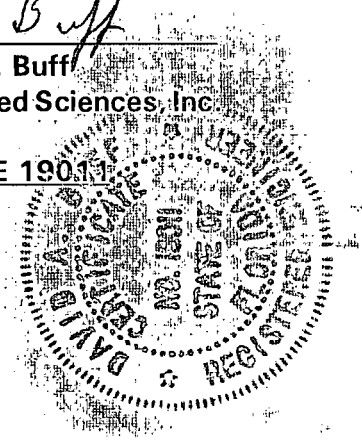
David B. Jellerson

David B. Jellerson, P.E.
Environmental Supervisor

Signed David A. Buff
David A. Buff
KBN Engineering and Applied Sciences, Inc.

Florida Registration No. PE 19011

Date 7/15/92

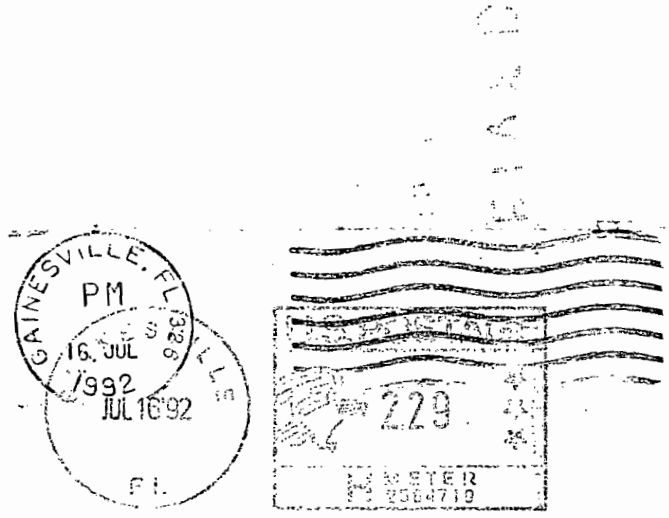


cc: B. Thomas - FDER, Tampa
D. Graziani - EPCHC
File P-8,9,10,44
A. Hanks
Q. Reynolds

KBN

91125/DAB/tla

KBN ENGINEERING AND APPLIED SCIENCES, INC.
1034 Northwest 57th Street
Gainesville, Florida 32605



Fold at line over top of envelope to the right of the return address

CERTIFIED

P 723 750 714

MAIL

Clair Fancy
Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

May 4, 1992

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. E. O. Morris
Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Evaluation of Previously Issued Amendments
No. 3 MAP: AC 29-194504
No. 4 MAP: AC 29-194507
MAP Cooler: AC 29-194508
No. 5 DAP: AC 29-196763, PSD-FL-178

After careful review of the regulations and the recent permitting action taken on the above referenced sources/permits (i.e., amendments made to the above referenced permits), it is apparent that modifications should have been issued instead of amendments in order to establish federally enforceable permit conditions through the Public Notice requirement. Therefore, please provide the following information to the Department's Bureau of Air Regulation and the modifications will be processed as expeditiously as possible:

- Submit the permitting action requests (i.e., modification instead of amendment) for the above referenced sources/permits under the seal of the original P.E. of Record, since all technical information that is submitted to the Department regarding permitting activity must be properly sealed by a Florida registered P.E. No additional processing fee will be required.

After processing the requests, the Department will issue its Intent, which will have to be Public Noticed in order to establish federally enforceable permit conditions. Upon the completion of the Public Notice period, the permit modifications will be submitted for signature.

I am sorry for the potential inconvenience this activity may cause you. However, this action is to protect your permit rights to operate the referenced sources as you desire and to be

protected under the regulations of Florida Administrative Code Chapters 17-2 and 17-4, and Section 403, Florida Statutes. If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

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

CHF/BM/rbm

cc: B. Thomas, SWD
D. Graziani, HCEPC
D. Buff, P.E., KBN
G. Smallridge, Esq., DER

P 832 538 785

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

UNITED STATES POSTAL SERVICE

Sent to Mr. Ozzie Morris, Cargill Fertilizer	
Street & No. 8813 Highway 41 South	
P.O., State & ZIP Code Riverview, FL 33569	
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: 2-28-92 Permit: AC 29-194504 -507, -508	

PS Form **3800**, June 1990

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 Fee will provide you the signature of the person delivered to and the date of delivery.

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. Ozzie Morris
Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, FL 33569

4a. Article Number
P 832 538 776

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
2-21-92

5. Signature (Addressee)

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

6. Signature (Agent)
Kathi E Smith

PS Form **3811**, November 1990 ☆U.S. GPO: 1991—287-066 **DOMESTIC RETURN RECEIPT**

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

February 28, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ozzie Morris
Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Amendment to Permits AC 29-194504, 29-194507, and 29-194508

The Department is in receipt of your December 6 and December 26, 1991, letters that included a request that the expiration dates of the referenced construction permits for the south MAP plant located at the phosphate fertilizer chemical plant in Riverview, Hillsborough County, Florida, be extended. This request is acceptable and the expiration date of these permits is changed from March 31, 1992, to December 31, 1992. A copy of this letter must be filed with the referenced permits and shall become a part of those permits.

Sincerely,

STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/wh

Attach: Cargill's December 6, 1991, letter
Cargill's December 26, 1991, letter

c: Bill Thomas, SWD
Jerry Campbell, EPCHC

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Steve Smallwood

FROM: Clair Fancy

DATE: February 27, 1992

SUBJ: Amendment to Permit Nos. AC 29-194504, 507, and 508
Cargill Fertilizer, Inc., MAP Plant

Attached for your approval and signature is a letter that will extend the expiration date of the referenced permits.

The Bureau recommends your approval and signature.

CF/wh

Attachment

2-26-92

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

CERTIFIED MAIL: 389 551 621

February 18, 1992

Mr. Willard Hanks
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permits
No. 3 MAP AC29-194504
No. 4 MAP AC29-194507

Dear Mr. Hanks:

As per our telephone discussion today, please find attached a copy of my December 6, 1991 letter requesting an extension of the expiration date of the above-referenced permits.

Should you have any questions or require additional information, please feel free to call me at 671-6207.

Sincerely,

David B. Jellerson

David B. Jellerson, P.E.
Environmental Supervisor

cc: B. Thomas - FDER, Tampa
D. Graziani - EPCHC
A. Wilcox, J. Singletary
File P-44

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:

MR Claire Fancy
FL DEPT ENV REG
2600 Blair Stone Rd
Tallahassee, FL
32399

4. Article Number
303 011 686

Type of Service:
☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery
DEC 9 1991

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

December 6, 1991 CERTIFIED MAIL:303 011 686

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Cargill Fertilizer Inc., Nos. 3 & 4 MAP Plants
Construction Permits AC29-194504 and AC29-194507

Dear Mr. Fancy,

Cargill Fertilizer, Inc. requests that the expiration dates of the above-referenced permits be changed from March 31, 1992 to December 31, 1992.

These two sources are currently being modified to increase production and combine emissions, along with those from a product cooler, into a single stack. The subject product cooler is also undergoing extensive modifications to improve control equipment performance and product recovery (AC29-194508). Since all three of these sources will have a common stack and the MAP plants will not achieve maximum production rates in time to conduct performance tests prior to the current permit expiration date, we request that the expiration date be changed to coincide with the 12/31/91 expiration date of the cooler permit. However, as currently required by the construction permits, Cargill Fertilizer, Inc. will test these sources within 30 days of reaching design capacity.

Should you have any questions or require additional information, please feel free to call me or Ozzie Morris at 671-6207 or 671-6153, respectively.

Sincerely,

David B. Jellerson

David B. Jellerson, P.E.
Environmental Supervisor

cc: Bill Thomas - FDER, Tampa
D. Graziani - EPCHC
Morris, Weyers, Wilcox
P-44

P 832 538 777

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

UNITED STATES POSTAL SERVICE

Sent to Mr. Ozzie Morris, Cargill Fertilizer	
Street & No. 8813 Highway 41 South	
P.O., State & ZIP Code Riverview, FL 33569	
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: 2-19-92 Permit: AC 29-194594, -597 -508	

PS Form **3800**, June 1990

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 Fee will provide you the signature of the person delivered to and the date of delivery.

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. Ozzie Morris
Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, FL 33569

4a. Article Number
P 832 538 777

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
2-21-92

5. Signature (Addressee)

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

6. Signature (Agent)
Kathi E Smith

PS Form **3811**, November 1990 ☆U.S. GPO: 1991—287-066 **DOMESTIC RETURN RECEIPT**

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

February 14, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Amendment to Permits AC 29-194504, 29-194507, & 29-194508
MAP Plant

The Department is in receipt of your December 26, 1991, and January 31, 1992, letters requesting the referenced construction permits for the modification of the south monoammonium phosphate plant be amended to allow a 9.3% increase in the permitted productions rates without any increase in allowable emissions. This request is acceptable and the referenced permits are amended as follows:

FROM:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using 14.0 TPH P_2O_5 (approximately 26.6 TPH phosphoric acid) and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 9: Production shall not exceed 27.1 TPH MAP. DAP shall not be produced by this plant.

Specific Condition No. 10: Phosphoric acid input to the plant shall not exceed 14.0 TPH P_2O_5 (approximately) 26.6 TPH of phosphoric acid).

Specific Condition No. 11: Ammonia input to the plant shall not exceed 3.4 TPH.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 54.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 8: Production shall not exceed 54.2 TPH MAP.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos.3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

TO:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 29.6 TPH of monoammonium phosphate using 15.3 TPH P_2O_5 and 3.73 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 9: Production shall not exceed 29.6 TPH MAP. DAP shall not be produced by this plant.

Specific Condition No. 10: Phosphoric acid input to the plant shall not exceed 15.3 TPH P_2O_5.

Specific Condition No. 11: Ammonia input to the plant shall not exceed 3.73 TPH.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (25.4-28.2 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 59.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry

cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 8: Production shall not exceed 59.2 TPH MAP.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (53.3-59.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos.3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

A copy of this letter shall be filed with the referenced construction permits and shall become a part of those permits.

Sincerely,

STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/WH/plm

Attach: Cargill's December 26, 1991, letter
Cargill's January 31, 1992, letter

c: Bill Thomas, SWD
Jerry Campbell, EPCHC
David Buff, P.E.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Steve Smallwood

FROM: Clair Fancy

DATE: February 14, 1992

SUBJ: Amendment to Construction Permit AC 29-194504, 507, 508
Cargill Fertilizer, Inc.

Attached for your approval and signature is a letter amending specific conditions of the above referenced construction permits.

The Bureau recommends approval of this amendment.

Attachments

CHF/WH/plm

rcd. 2-27-92 BAR draft response; get new 17-4

ROGER P. STEWART
EXECUTIVE DIRECTOR

ADMINISTRATIVE OFFICES AND WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

FAX (813) 272-5157

ENVIRONMENTAL PROTECTION COMMISSION
HILLSBOROUGH COUNTY

February 13, 1992

Mr. Clair Fancy, P.E.
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Minor Modification Procedures

Dear Mr. Fancy:

As you are aware, the recent changes to Chapter 17-4, F.A.C. included a $50.00 fee for "minor modifications." This inclusion has raised several questions and has been discussed briefly at the Air Permit Engineer's Teleconference. Recently the issue impacted our agency when Cargill Fertilizer, Inc. requested "amendments" to four (4) recently issued construction permits. Each of these permits issued by Tallahassee contained a federally enforceable permit condition which restricted production rates. On January 9, 1992, we wrote to you and recommended that the Department deny the amendment request since by Rule 17-2.100(126), F.A.C., it was actually a modification. In response to my letter and under the advice of your staff, Cargill resubmitted their original request as a "minor modification." In discussing the situation with your staff it became very clear that there are no set procedures for processing minor modifications.

We would like to recommend that the BAR issue some guidelines on processing minor modifications as soon as possible. These guidelines should, as a minimum, address the following:

1) What constitutes a minor modification?
2) How does a permittee apply for a minor modification?
3) What information is needed to ensure that a proposed modification is minor?
4) Are PE seals required for a minor modification?
5) Is public notice required?
6) Is a revised or new Preliminary Determination and Technical Evaluation needed?

7) What do we issue the permittee in regards to a permit (i.e., whole new permit or just a letter?)
8) Who processes the minor modifications (Districts or Tallahassee)?

We believe that without proper guidelines the "minor modification" will become a basis for debate and argument between the regulatory agencies and the regulated community. We hope that you will be able to take the lead and develop guidelines which are both fair and reasonable for reviewing minor modifications. We would suggest that you circulate a draft of your guidelines to interested locals such as ours, so that we may provide input prior to the procedure becoming final.

If you have any questions please feel free to contact me at Suncom 543-5530.

Sincerely,

Darrel J. Graziani
Chief, Air Permitting Section

cc: J. Harry Kerns, P.E., FDER SW District Office

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

January 31, 1992 CERTIFIED MAIL #: 389 551 614

Mr. Willard Hanks
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permits: No. 3 MAP AC29-194504
No. 4 MAP AC29-194507
Cooler AC29-194508

Dear Mr. Hanks,

As per our discussion on January 30, 1992, we request that our production increase request concerning the above-referenced permits be revised.

As indicated in our original request, it has become apparent that upon completion of construction, the upgraded plants will be capable of a slightly higher production rate than permitted. Therefore, we request that allowable maximum MAP production be increased to 59.2 TPH (29.6 TPH/unit). This will require 30.6 TPH P_2O_5 input and 7.45 TPH of ammonia. These values represent a 9.3% increase in current permitted production rates. As we previously indicated, we are willing to accept the increased production rates without any associated increase in maximum allowable hourly or annual emissions.

Should you have any questions or require additional information, please feel free to call me or David Jellerson at 671-6153 or 671-6207, respectively.

Sincerely,

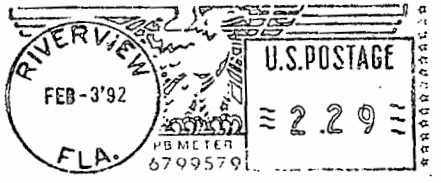
E. O. Morris

E. O. Morris
Environmental Manager

cc: B. Thomas - FDER, Tampa
D. Graziani - EPCHC
D. Jellerson, A. Wilcox, J. Singletary
File P-10,9,8
WMH

CARGILL
FERTILIZER, INC.

8813 Highway 41 South
Riverview, Florida 33569



Fold at line over top of envelope to the right of the return address.

CERTIFIED

P 389 551 614

MAIL

Mr. WILLARD HANKS
BUREAU OF AIR QUALITY MANAGEMENT
FLORIDA STATE
DEPARTMENT ENVIRONMENTAL REGULATION
2600 BLAIR STONE ROAD
TALLAHASSEE, FL 32399-2400

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

January 22, 1992 CERTIFIED MAIL #: 303 011 705

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permits: No. 3 MAP AC29-194504
No. 4 MAP AC29-194507
MAP Cooler AC29-194508
No. 5 DAP AC29-196763

Dear Mr. Fancy,

Attached, please find a check (No. 577101052) in the amount of $1,000 to cover the minor permit modification requests submitted to you on December 26, 1991 concerning the above-referenced permits.

In addition, after discussing the requested permit changes for the No. 5 DAP plant with Mr. John Reynolds of your staff, we would like to reduce our requested production increase. In our December 26, 1991 letter we requested that the No. 5 DAP source production permit limit be increased from 67.2 TPH P_2O_5 to 76.7 TPH P_2O_5. We would like to reduce the requested amount to 73.5 TPH P_2O_5. Further, as we previously discussed, no increase in emissions is requested.

Should you have any questions or require additional information, please feel free to call me or David Jellerson at 671-6153 or 671-6207, respectively.

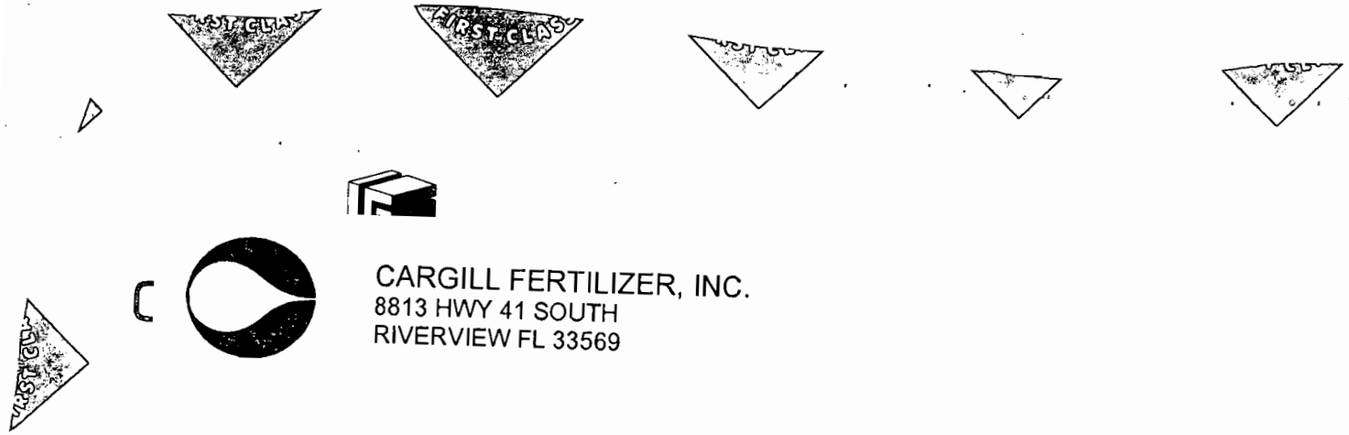
Sincerely,

E. O. Morris

001031

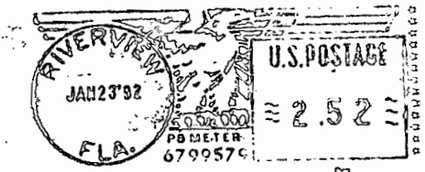
E. O. Morris
Environmental Manager

cc: B. Thomas - FDER, Tampa
W. Hanks, J. Reynolds - FDER, Tallahassee
D. Graziani - EPCHC
Wilcox, Singletary, Jellerson
file P-44A,10,9,8



CARGILL FERTILIZER, INC.
8813 HWY 41 SOUTH
RIVERVIEW FL 33569

GIBSONTON
DROP SHIPMENT
AUTHORIZATION



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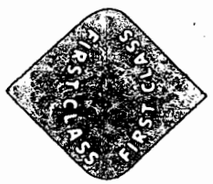


Fold at line over top of envelope to the right of the return address.

CERTIFIED

P 303 011 705

MAIL

MR. CLAIR FANCY
FLORIDA DEPARTMENT OF ENVIRONMENTAL
REGULATION/TWIN TOWERS OFFICE BLDG.
2600 BLAIR STONE BUILDING
TALLAHASSEE, FL 323-99-2400

CARGILL FERTILIZER, INC. #577101052

VENDOR NUMBER	INVOICE NUMBER	INVOICE DATE	GROSS AMOUNT	DISCOUNT	NET AMOUNT
5870		1 21 92	100000		100000

MAP and DAP Production increases Permits AC29-196763, AC29-194504, AC29-194507 and AC29-194508.

TOTAL		100000	100000

IF CORRECT, DETACH AND RETAIN STATEMENT, IF NOT CORRECT, RETURN WITH STATEMENT.

64-1278
611

CARGILL FERTILIZER, INC.
8813 U.S. HIGHWAY 41 SOUTH
RIVERVIEW, FL 33569-4865

#577101052

THE CITIZENS AND SOUTHERN NATIONAL BANK
Atlanta, DeKalb County, Georgia

DATE MO. 1 DAY 22 YR. 92

PAY EXACTLY ******1,000 DOLLARS AND 00 CENTS

$******1,000 00

CARGILL FERTILIZER, INC.

AUTHORIZED SIGNATURE

TO THE ORDER OF
FLORIDA DEPT OF ENVIR. REG.
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASEE, FL 32301

[redacted]

1-16-92
D. Jellerson arranging $1000 check 1-17-92
PA

ROGER P. STEWART
EXECUTIVE DIRECTOR
ADMINISTRATIVE OFFICES
AND
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

January 9, 1992

Mr. C.H. Fancy, P.E.
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: DER Permit Nos. AC29-196763 (No. 5 DAP Plant), AC29-194504 (No. 3 MAP Plant), AC29-194507 (No. 4 MAP Plant) and AC29-194508 (Cooler)

Dear Mr. Fancy:

On December 26, 1991, Cargill Fertilizer, Inc. requested the Department to amend the above permits to allow an increase in production rates. The company is reporting that the rate increases are a result of the modifications authorized by these construction permits.

A review of the permits indicates that the permits contain "federally enforceable permit conditions" which restrict the production and/or throughput rates. As such, the company's request should be viewed as a modification (Rule 17-2.100(126), F.A.C.) and an application for the higher rates should be requested by the Department.

Based on my review, I recommend that the Department deny the company's requests for the rate increases.

Sincerely,

Darrel Graziani
Chief, Air Permitting Section

bm

cc: J. Harry Kerns, P.E., FDER SW-District
Ozzie Morris, Cargill Fertilizer, Inc.
R. Hanks
G. Reynolds

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 5286 - FAX 813-671-6146

December 26, 1991 CERTIFIED MAIL #: 303 011 701

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permits: No. 3 MAP AC29-194504
No. 4 MAP AC29-194507
Cooler AC29-194508

Dear Mr. Fancy,

On 8/14/91 the Department issued the above-referenced permits to increase the production rates of the Nos. 3 and 4 Monammonium Phosphate Plants and associated product cooler to 54.2 TPH monammonium phosphate (MAP). These permits were subsequently modified on 9/25/91 to allow for all three sources to discharge through a common stack. In addition, on 12/6/91 Cargill Fertilizer, Inc. submitted a request that the expiration dates of the No. 3 and No. 4 MAP plants be extended to 12/31/92. The increase in production in these plants was to be accomplished by improving recycle control automation, ammonia vaporizer stabilization, and evacuation/pollution control system upgrades.

Although construction is not complete, it has become apparent that the upgraded plants will be capable of a slightly higher production rate than permitted. Therefore, we request that allowable maximum MAP production be increased to 56.4 TPH (28.2 TPH/unit). This will require 29.14 TPH P_2O_5 input and 7.1 TPH of ammonia. These values represent a 4.1% increase in current permitted production rates. Further, we are willing to accept the increased production rates without any associated increase in maximum allowable hourly or annual emissions.

Should you have any questions or require additional information, please feel free to call me or David Jellerson at 671-6153 or 671-6207, respectively.

Sincerely,

E. O. Morris
Environmental Manager

cc: B. Thomas - FDER, Tampa
D. Graziani - EPCHC
D. Jellerson
A. Wilcox
J. Singletary
file P-8,9,10

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52-896 - FAX 813-671-6146

December 26, 1991 CERTIFIED MAIL #: 303 011 701

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permits: No. 3 MAP AC29-194504
No. 4 MAP AC29-194507
Cooler AC29-194508

Dear Mr. Fancy,

On 8/14/91 the Department issued the above-referenced permits to increase the production rates of the Nos. 3 and 4 Monammonium Phosphate Plants and associated product cooler to 54.2 TPH monammonium phosphate (MAP). These permits were subsequently modified on 9/25/91 to allow for all three sources to discharge through a common stack. In addition, on 12/6/91 Cargill Fertilizer, Inc. submitted a request that the expiration dates of the No. 3 and No. 4 MAP plants be extended to 12/31/92. The increase in production in these plants was to be accomplished by improving recycle control automation, ammonia vaporizer stabilization, and evacuation/pollution control system upgrades.

Although construction is not complete, it has become apparent that the upgraded plants will be capable of a slightly higher production rate than permitted. Therefore, we request that allowable maximum MAP production be increased to 56.4 TPH (28.2 TPH/unit). This will require 29.14 TPH P_2O_5 input and 7.1 TPH of ammonia. These values represent a 4.1% increase in current permitted production rates. Further, we are willing to accept the increased production rates without any associated increase in maximum allowable hourly or annual emissions.

Should you have any questions or require additional information, please feel free to call me or David Jellerson at 671-6153 or 671-6207, respectively.

Sincerely,

E. O. Morris
Environmental Manager

cc: B. Thomas - FDER, Tampa
D. Graziani - EPCHC
D. Jellerson
A. Wilcox
J. Singletary
file P-8,9,10

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

December 26, 1991 CERTIFIED MAIL #: 303 011 700

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permit AC29-196763
No. 5 DAP Plant Expansion

Dear Mr. Fancy,

On 11/26/91 the Department issued permit AC29-196763 to increase the production input rate of the No. 5 Diammonium Phosphate Plant from 55.2 TPH P_2O_5 to 67.2 TPH P_2O_5. The permit application for the plant expansion included a BACT determination which resulted in permit with emission limitations substantially more stringent than New Source Performance Standards. The new emissions limitations are as follows:

POLLUTANT	STANDARD	MAXIMUM ALLOWABLE EMISSIONS	
	lb/T P_2O_5	lb/hr	T/yr
PM/PM10	0.19	12.8	56.0
SO_2	0.58	32.4	83.7
Fluoride	0.06	3.3	14.5

The increase in production was to be accomplished by upgrading screens, mills, elevators, and conveyors to increase recycle capacity. Along with the production modifications, pollution control upgrades included an improved ammonia recovery system, installation of more efficient scrubber spray nozzles, increased scrubber liquid flow rates and improved energy efficiency.

As indicated, the primary focus of the production modifications was in recycle and screening capacity to produce a high quality, specifically sized product. However, marketing opportunities have

arisen with less stringent customer requirements. As a result, the expanded plant is capable of producing larger quantities of product by reducing recycle volume and screening requirements.

The construction permit provides that the unit may be operated at rates more than 10% greater than 67.2 TPH P_2O_5 provide the agencies are notified and a compliance test is conducted. We therefore request that the construction permit be modified to allow production of up to 76.7 TPH P_2O_5. Further, we are willing to accept the increased production rate without any associated increase in maximum allowable hourly or annual emissions. We also recognize that whenever production rates exceed rates during the most recent compliance test by more than 10%, a new compliance test must be conducted.

Should you have any questions or require additional information, please feel free to call me or David Jellerson at 671-6153 or 671-6207, respectively.

Sincerely,

E. O. Morris

E. O. Morris
Environmental Manager

cc: B. Thomas - FDER, Tampa
D. Graziani - EPCHC
D. Jellerson
A. Wilcox
J. Singletary
P-44 A
J. Reynolds

P 832 538 966

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

UNITED STATES POSTAL SERVICE

Sent to Ozzie Morris	
Street & No. Cargill Fertilizer	
P.O., State & ZIP Code Riverview, FL	
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 9-26-91	

RC 29-194504
- 507
- 508

PS Form **3800**, June 1990

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. Ozzie Morris
Cargill Fertilizer, Inc.
8813 Hwy 41 South
Riverview, FL 33569

4a. Article Number P 832 538 966

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

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**

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

September 25, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Amendment of Permits, MAP Plant
AC 29-194504, AC 29-194507, and AC 29-194508

The Department is in receipt of your August 16, 1991, letter requesting the referenced construction permits for the modification of the south monoammonium phosphate plant be amended to allow a single stack to serve the Nos. 3 and 4 granulator and south MAP cooler. This request is acceptable and the referenced permits are amended as follows:

FROM:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using 14.0 TPH P_2O_5 (approximately 26.6 TPH phosphoric acid) and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 3.33 ft. diameter by 90 ft. high stack. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 16: This source shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia

emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the permittee, Department, and the Environmental Protection Commission of Hillsborough County (EPCHC).

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 54.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes intern improvements to the existing wet cyclones to be followed by replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged through a 4.3 ft. diameter stack that is 125 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 12: This source shall be tested for particulate matter, visible emissions, and fluorides within 30 days after the intern improvements to the wet cyclones and within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

TO:

Permit Nos. AC 29-194504 and AC 29-194507

Description: Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using 14.0 TPH P_2O_5 (approximately 26.6 TPH phosphoric acid) and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 7.0 ft. diameter by 133 ft. high stack that also serves another granulator and the MAP cooler. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Because of a recent change in Florida regulations, any future amendment to these permits may require a processing fee. A copy of this letter shall be filed with the referenced construction permits and shall become a part of those permits.

Sincerely,

STEVE SMALLWOOD, P.E.
Director
Division of Air Resources
Management

SS/WH/plm

Attach: Cargill August 16, 1991, letter

c: Bill Thomas, SWD
Jerry Campbell, EPCHC
David Buff, P.E.

Specific Condition No. 16: The common stack for the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while the granulator is operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the Department.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be in the sum of the allowable emissions for each of the sources in operation during the compliance tests.

Permit No. AC 29-194508

Description: Authorization to modify the south ammonium phosphate cooler to handle up to 54.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged from the Nos. 3 and 4 granulator and the south cooler through a common stack that is 7.0 ft. diameter by 133 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

Specific Condition No. 12: The common stack serving the south MAP plant shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The total allowable emissions from the stack serving granulators Nos. 3 and 4 and the south cooler shall be the sum of the allowable emissions for each of the sources in operation during the compliance tests.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Steve Smallwood

FROM: Clair Fancy

DATE: September 25, 1991

SUBJ: Amendments to Construction Permits AC 29-194504, 507, 508
Cargill Fertilizer, Inc.

Attached for your approval and signature is a letter amending specific conditions of the above referenced construction permits.

The Bureau recommends approval of this amendment.

CF/WH/plm

Attachment

CHF OK 9-26-91

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

August 16, 1991

CERTIFIED MAIL

RECEIVED
AUG 19 1991
Bureau of
Air Regulation

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permits - Modification Request
Permits AC29-194504, AC29-194507 and AC29-194508

Dear Mr. Fancy,

Cargill Fertilizer, Inc. has recently received the above-referenced construction permits allowing for modifications to the subject sources. As a result of the engineering design of these changes, it is requested that these permits be amended to allow for the exhaust of all three sources into the new stack being constructed for the MAP Cooler (AC29-194508). This change is being requested due to space considerations at the site.

Attached are drawings of the proposed changes at the MAP plants. These changes entail redirecting the #3 and #4 MAP plant exhausts to the new stack being constructed in conjunction with the Cooler upgrades. To accommodate the added flows the new stack diameter will be increased from 4.3 ft. to 7.0 feet. The existing MAP stacks will be removed. There will be no changes to emission rates from the sources.

Attached is a letter from David Buff of KBN Engineering and Applied Sciences, Inc. addressing the ambient impacts of the proposed changes. Mr. Buff's analysis concluded that the changes will not result in any increase in ambient air impacts.

Should you have any questions or require additional information, please feel free to call me or Ozzie Morris at 671-6207 or 671-6153, respectively.

Sincerely,

David B. Jellerson

David B. Jellerson, PE
Environmental Supervisor

cc: W. Hanks, FDER
D. Graziani - EPCHC

Fold at line over top of envelope to the right of the return address

CERTIFIED

P 723 750 649

MAIL

CARGILL FERTILIZER, INC.
8813 HWY 41 SOUTH
RIVERVIEW FL 33569

MR. CLAIR FANCY
DEPARTMENT OF ENVIRONMENTAL REGULATION
TWIN TOWERS OFFICE BUILDING
TALLAHASSEE, FL 32399-2400

KBN

August 14, 1991

Mr. Willard Hanks
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: MAP Plant Changes

Dear Mr. Hanks:

Cargill has asked me to review its planned changes in the air exhaust ducting and stacks associated with the Nos. 3 and 4 MAP plants. Cargill is submitting a description of the changes, including supportive drawings, to DER. The changes essentially consist of the routing of the two existing MAP unit scrubber exhaust gases to a new common stack that will serve both the MAP units and the MAP cooler. The MAP cooler will no longer have a separate stack serving it. A new stack will be constructed which will vent the exhaust gases from the two MAP units and the MAP cooler. Source emission rates will not change as a result of these ducting changes.

The attached table provides the stack parameters for the existing sources and stacks, as well as the parameters for the new common stack. All parameters reflect plant operation at the recently permitted higher production rate of 54.2 TPH (AC29-194504, -194507, and -195508). As indicated in the table, the current permitted stack heights for the tow MAP units is 90 feet, and for the MAP cooler is 125 feet. The new common stack will have a height of 133 feet.

Based on my experience with dispersion modeling, as well as discussion with our modeling staff, it is concluded that these changes will not result in an increase in air quality impacts. The height of the new stack is higher than the three permitted stacks. Since the exhaust flows are now being combined, the resulting plume rise will be greater than the three streams would have been individually. The new stack will be located very close to the permitted stacks, and therefore the distance from the stacks (new and old) to the nearest property boundary will essentially not change. For these reasons, the air impacts due to the existing permitted sources should not increase as a result of this requested change.

If you have any questions concerning this matter, please call.

Sincerely,

David A. Buff

David A. Buff, M.E., P.E.
Principal Engineer Florida P.E. #19011

cc: David Jellerson
Project File

91007A1/2 KBN ENGINEERING AND APPLIED SCIENCES, INC.
1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

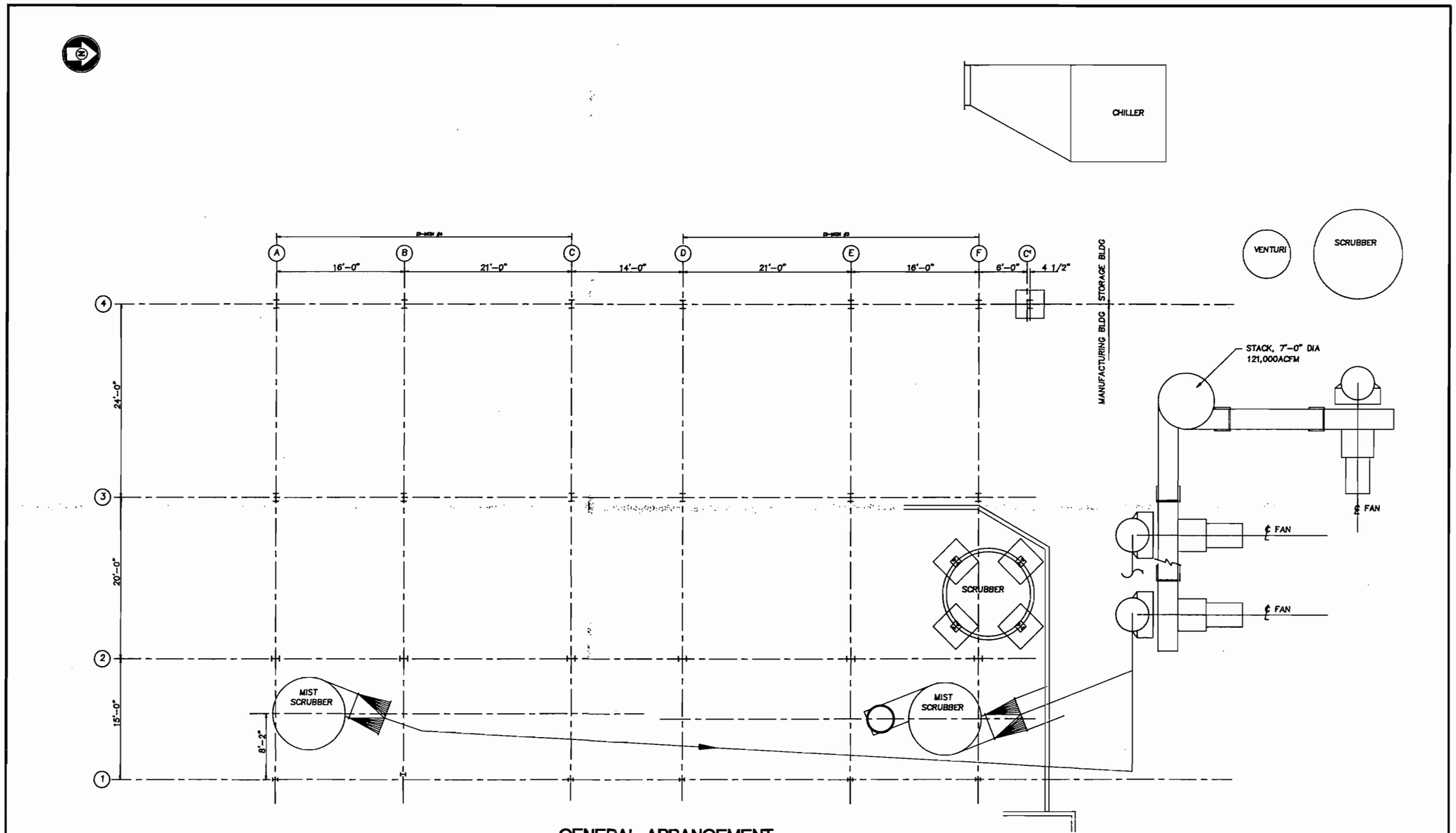
NEW CONSTRUCTION PERMIT SOURCE EXHAUST CONDITIONS:
(permits AC29-194504, AC29-194507 and AC29-194508)

SOURCE	EXHAUST FLOW (ACFM)	STACK HEIGHT (ft)	STACK DIAMETER (ft)	STACK TEMP. (deg F)	EXIT VELOCITY (fps)
3 MAP	35,000	90	3.33	140	66.9
4 MAP	35,000	90	3.33	140	66.9
COOLER	50,600	125	4.3	95 TO 105	58.1

PROPOSED CHANGES WITH ALL THREE SOURCES EXHAUSTING OUT A SINGLE STACK AS FOLLOWS:

SOURCE	EXHAUST FLOW (ACFM)	STACK HEIGHT (ft)	STACK DIAMETER (ft)	STACK TEMP. (deg F)	EXIT VELOCITY (fps)
NEW STACK	121,000	133	7.0	120	52.4

SOURCE EMISSION RATES WILL NOT CHANGE



GENERAL ARRANGEMENT
PROPOSED MODIFICATIONS
DI-MON #3 + DI-MON #4

NO.	DATE	REVISION	BY	CK	APP
A	07-30-91	FOR APPROVAL	EM		

REF DRAWINGS

CARGILL FERTILIZER, INC.
8813 HIGHWAY 41 SOUTH
RIVERVIEW, FLORIDA 33569
(813) 677-9711

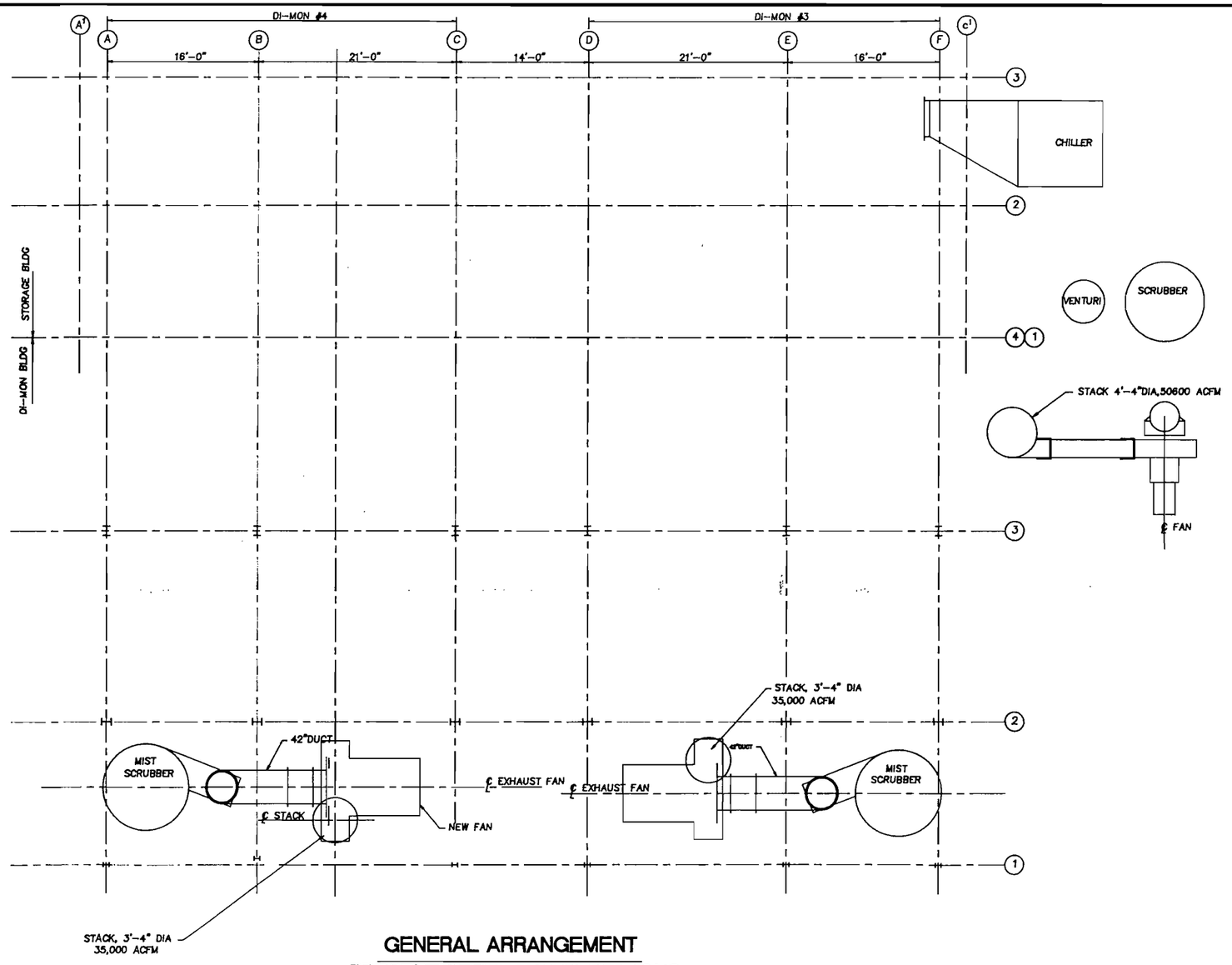
CAD FILE 34-G-158LDWG | PLOT SCALE 1/4" = 1'-0" | JOB NO.

#3 & #4 DI-MON PLANTS
REACTOR EXHAUST SYSTEM
PROPOSED FAN & STACK MODIFICATIONS

SEC. MECHANICAL SCALE 1/4"=1'-0" DATE 07-30-91

DR E. MORRIS DR NO. 34-G-158

CH DATE



GENERAL ARRANGEMENT
PRESENT PERMIT MODIFICATIONS
DI-MON #3 + DI-MON #4

REF DRAWINGS	NO.	DATE	REVISION	BY	CK	APP
	A	07-30-91	FOR APPROVAL	EM		

CARGILL FERTILIZER, INC.
8813 HIGHWAY 41 SOUTH
RIVERVIEW, FLORIDA 33569
(813) 677-9211

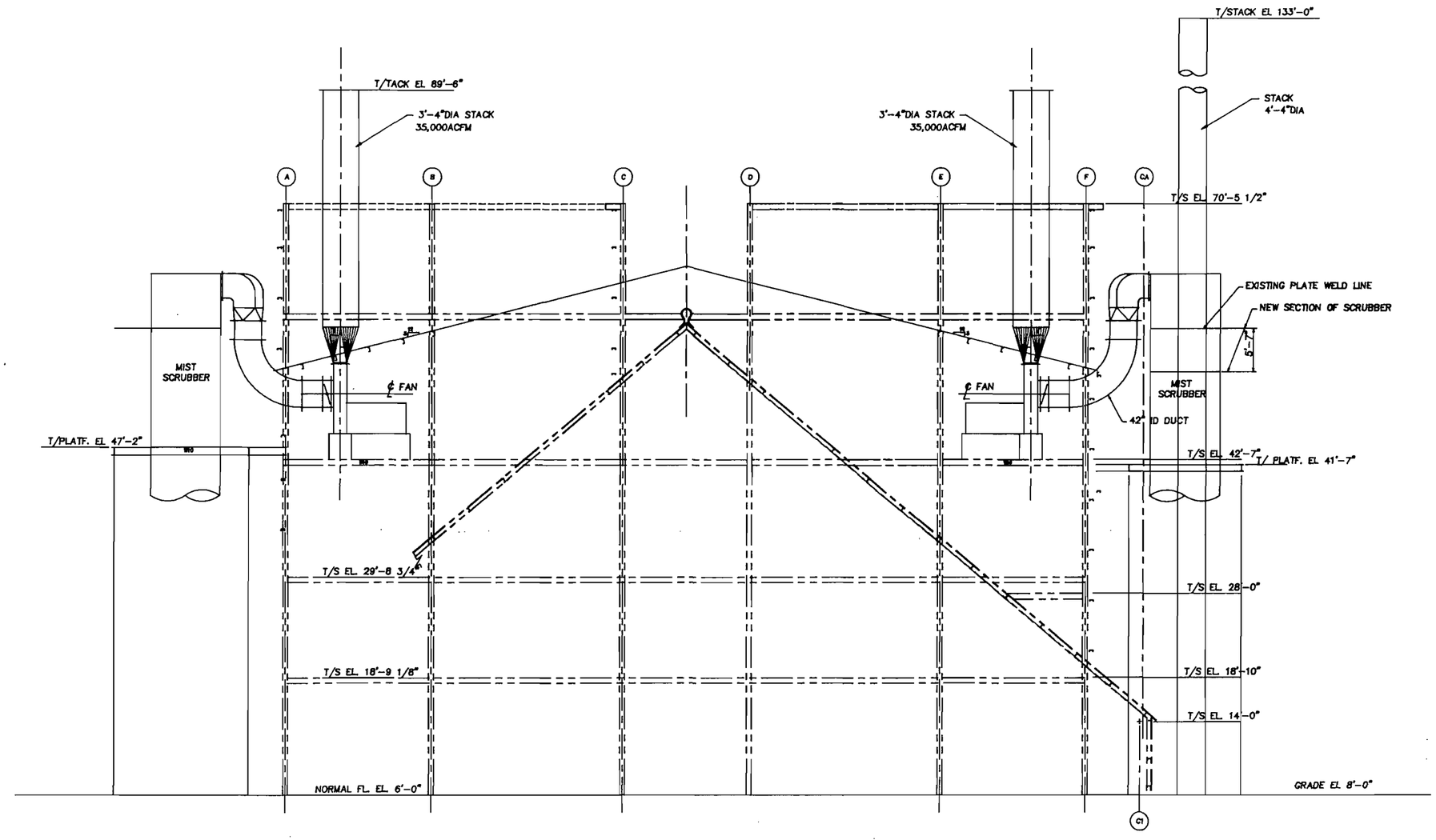
CAD FILE 34-G-159.DWG | PLOT SCALE NONE | JOB NO.

#3 & #4 DI-MON PLANTS
REACTOR EXHAUST SYSTEM
PRESENT PERMIT MODIFICATIONS

SEC. MECHANICAL SCALE NONE DATE 07-30-91

DR E. MORRIS DR NO. 34-G-159

CH DATE



ELEVATION • COL 1

(LOOKING WEST)

PRESENT PERMIT MODIFICATIONS
DI-MON #3 + DI-MON #4

NO.	DATE	REVISION	BY	CK	APP
B	09-09-91	REVISED STACK,ACAFM	EM		
A	07-30-91	FOR APPROVAL	EM		

REF DRAWINGS

CARGILL FERTILIZER, INC.
8823 HIGHWAY 41 SOUTH
RIVERVIEW, FLORIDA 33569
(813) 677-9211

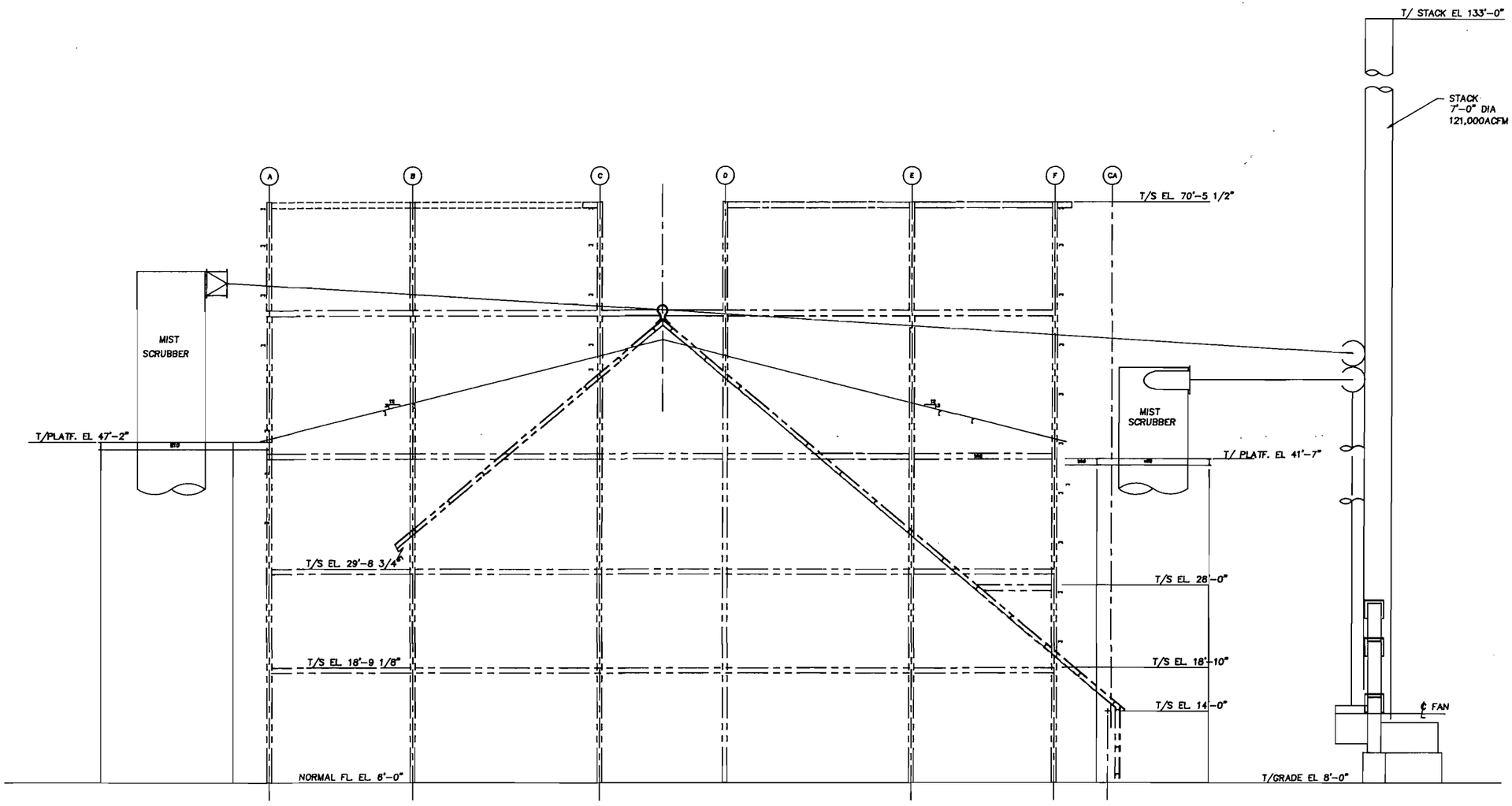
CAD FILE: 34-G-161.DWG | PLOT SCALE: FIT | JOB NO.

#3 & #4 DI-MON PLANTS
REACTOR EXHAUST SYSTEM
PRESENT PERMIT MODIFICATIONS

SEC. MECHANICAL SCALE NONE DATE 07-30-91

DR E. MORRIS DR NO. 34-G-161

CH DATE



ELEVATION • COL 1

(LOOKING WEST)

PROPOSED MODIFICATIONS
DI-MON #3 + DI-MON #4

REF DRAWINGS

NO.	DATE	REVISION	BY	CK	APP
A	07-30-91	FOR APPROVAL	EM		

CARGILL FERTILIZER, INC.
8813 HIGHWAY 41 SOUTH
RIVERVIEW, FLORIDA 33569
(813) 677-9111

CAD FILE: 34-G-162.DWG | PLOT SCALE: FIT | JOB NO.

#3 & #4 DI-MON PLANTS
REACTOR EXHAUST SYSTEM
PROPOSED MODIFICATIONS

SEC. MECHANICAL SCALE NONE DATE 07-30-91

DR E. MORRIS DR NO. 34-G-162

CH DATE

P 832 538 935

Certified Mail Receipt

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

UNITED STATES POSTAL SERVICE

Sent to: Ozzie Morris	
Street & No.: Cargill Fert.	
P.O., State & ZIP Code: Riverview, FL	
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: AC 29-194504 8-14-91 507 508	

PS Form **3800**, June 1990

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. Ozzie Morris, Env. Mgr.
Cargill Fert. Inc.
8813 Hgwy. 41 South
Riverview, FL 33569

4. Article Number: P 832 538 935

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X

6. Signature – Agent
X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

AUG 16 1991

PS Form **3811**, Mar. 1987 ★ U.S.G.P.O. 1987-178-268 DOMESTIC RETURN RECEIPT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMITS

In the matter of an
Application for Permits by:

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

DER File No. AC 29-194504
AC 29-194507
AC 29-194508
Hillsborough County

Enclosed are Permit Numbers AC 29-194504, 194507, and 194508 to construct two ammonium phosphate granulators and a south ammonium phosphate cooler, issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMITS and all copies were mailed before the close of business on 8-14-91 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

(Clerk) 8-14-91 (Date)

Copies furnished to:
Bill Thomas, SWD
Jerry Campbell, EPCHC
David Buff, P.E.

Final Determination

Cargill Fertilizer, Inc.
Riverview, Hillsborough County, Florida

Monoammonium Phosphate Plant (MAP)

Source	Permit No.
No. 3 Ammonium Phosphate Granulator	AC 29-194504
No. 4 Ammonium Phosphate Granulator	AC 29-194507
South Ammonium Phosphate Cooler	AC 29-194508

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

August 7, 1991

Final Determination

The Technical Evaluation and Preliminary Determination for the permits to construct two ammonium phosphate granulators and a south ammonium phosphate cooler at Cargill Fertilizer, Inc. in Riverview, Hillsborough County, Florida, was distributed on July 1, 1991. The Notice of Intent to Issue was published in The Tampa Tribune on July 11, 1991. Copies of the evaluation were available for public inspection at the Environmental Protection Commission of Hillsborough County's office in Tampa and the Department's offices in Tallahassee and Tampa.

The Environmental Protection Commission of Hillsborough County and the applicant submitted comments on the proposed permits. The County requested that a time limit for the compliance tests be included in the permits. The applicant requested that: the permits limit the P_2O_5 input to the granulators instead of the phosphoric acid input, the scrubber operating parameters during compliance tests be based on an Operation and Maintenance Plan instead of the previous compliance tests, a variation of the EPA Draft Method be used to test for ammonia emissions, and that the expiration date of the cooler permit be corrected to December 31, 1991. All of these requests were acceptable to the Department.

The source description, specific conditions Nos. 10, 15, and 16 of proposed permits Nos. AC 29-194504 and AC 29-194507 and the expiration date and specific conditions Nos. 10 and 12 of proposed permit No. AC 29-194508 were changed to incorporate these comments.

Specific Condition No. 10: AC 29-194504 and 29-194507

FROM:

Phosphoric acid input to the plant shall not exceed 26.6 TPH.

TO:

Phosphoric acid input to the plant shall not exceed 14.0 TPH P_2O_5 (approximately 26.6 TPH of phosphoric acid).

Specific Condition No. 15: AC 29-194504 and 29-194507

FROM:

The liquid flow to the scrubbers shall be maintained at or above the values that existed during the compliance tests.

TO:

Prior to issuance of an operating permit for this source, an Operation and Maintenance (O & M) Plan will be submitted defining the normal scrubber operating conditions and maintenance

requirements. Based on the O & M plan, the Department may specify the scrubber operation parameters that the compliance tests are to be conducted at.

Specific Condition No. 16: AC 29-194504 and 29-194507

FROM:

This source shall be tested for particulate matter, visible emissions, fluorides, and ammonia annually by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using an EPA Method 6 train with 15 ml of 1.0 N sulfuric acid placed in the midget bubbler and the first two midget impingers, final impinger dry, or any other test method agreed to by the permittee, Department, and the Environmental Protection Commission of Hillsborough County (EPCHC).

TO:

This source shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the permittee, Department, and the Environmental Protection Commission of Hillsborough County (EPCHC).

Specific Condition No. 10: AC 29-194508

FROM:

The liquid flow and gas pressure drop across the venturi scrubber shall be maintained at or above the values that existed during the compliance tests.

TO:

Prior to issuance of an operating permit for this source, an Operation and Maintenance (O & M) Plan will be submitted defining the normal scrubber operating conditions and maintenance requirements. Based on the O & M plan, the Department may specify the scrubber operation parameters that the compliance tests are to be conducted at.

Specific Condition No. 12: AC 29-194508

FROM:

This source shall be tested for particulate matter, visible emissions, and fluorides after the intern improvements to the wet cyclones and after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

TO:

This source shall be tested for particulate matter, visible emissions, and fluorides within 30 days after the intern improvements to the wet cyclones and within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

The final action of the Department will be to issue construction permits AC 29-194504, 194507, and 194508 as proposed in the Technical Evaluation and Preliminary Determination, except for the changes noted above.

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Permit Number: AC 29-194504
Expiration Date: March 31, 1992
County: Hillsborough
Latitude/Longitude: 27°51'28"N
82°23'15"W
Project: No. 3 Ammonium Phosphate (MAP) Granulator, South Ammonium System

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

Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using 14.0 TPH P_2O_5 (approximately 26.6 TPH phosphoric acid) and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 3.33 ft. diameter by 90 ft. high stack. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

This construction permit replaces permit No. AO 29-152717. NEDS No. 0008, Point ID 22.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received March 25, 1991
2. DER letter dated April 23, 1991
3. Cargill letter dated May 1, 1991
4. EPCHC letter dated July 16, 1991
5. Cargill letter dated July 19, 1991

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Permit Number: AC 29-194507
Expiration Date: March 31, 1992
County: Hillsborough
Latitude/Longitude: 27°51'28"N
82°23'15"W
Project: No. 4 Ammonium Phosphate (MAP) Granulator, South Ammonium System

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

Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using 14.0 TPH P_2O_5 (approximately 26.6 TPH phosphoric acid) and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 3.33 ft. diameter by 90 ft. high stack. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

This construction permit replaces permit No. AO 29-152718. NEDS No. 0008, Point ID 23.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received March 25, 1991
2. DER letter dated April 23, 1991
3. Cargill letter dated May 1, 1991
4. EPCHC letter dated July 16, 1991
5. Cargill letter dated July 19, 1991

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or

GENERAL CONDITIONS:

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source

GENERAL CONDITIONS:

arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;

GENERAL CONDITIONS:

- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this source shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The ARCO and Chemco scrubbers shall be designed for a minimum capture efficiency of 95% for particulate, fluorides, and ammonia.

Emission Restrictions

4. Particulate matter emissions, including PM_{10}, shall not exceed 0.3 lbs/ton MAP produced, 5.0 lbs/hr, and 21.25 TPY.

5. Fluorides emissions shall not exceed 1.0 lbs/hr and 4.25 TPY.

6. Ammonia emissions shall not exceed 100 lbs/hr and 425 TPY.

7. Visible emissions shall not exceed 20% opacity.

8. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

9. Production shall not exceed 27.1 TPH MAP. DAP shall not be produced by this plant.

SPECIFIC CONDITIONS:

10. Phosphoric acid input to the plant shall not exceed 14.0 TPH P_2O_5 (approximately 26.6 TPH of phosphoric acid).

11. Ammonia input to the plant shall not exceed 3.4 TPH.

12. Natural gas consumption shall not exceed 2,440 CFH.

13. The source may operate 24 hrs/day, 7 days/week, and 52 weeks/year, but not more than 8,500 hrs/year.

14. The source shall cease operation whenever the air pollution control equipment on this plant or the south ammonium phosphate cooler is not operating in compliance with its permit conditions or regulations. Covers shall be kept on all openings in process equipment except during service. Any leaks in the vessels, ducts, and control systems shall be repaired promptly to minimize fugitive emissions.

15. Prior to issuance of an operating permit for this source, an Operation and Maintenance (O & M) Plan will be submitted defining the normal scrubber operating conditions and maintenance requirements. Based on the O & M plan, the Department may specify the scrubber operation parameters that the compliance tests are to be conducted at.

Compliance Requirements

16. This source shall be tested for particulate matter, visible emissions, fluorides, and ammonia within 30 days of reaching its design capacity and annually thereafter by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the permittee, Department, and the Environmental Protection Commission of Hillsborough County (EPCHC).

17. The EPCHC shall be notified in writing a minimum of 15 days in advance of any compliance test to be conducted on this source.

PERMITTEE:

Cargill Fertilizer, Inc.

Permit Number: AC 29-194504
AC 29-194507

Expiration Date: March 31, 1992

SPECIFIC CONDITIONS:

Administrative Requirements

18. The permittee shall maintain records showing the source operating time, phosphoric acid and ammonia consumption, MAP production, and scrubbers liquid flow for this source for a minimum of 2 years.

19. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

20. An application for an operation permit must be submitted to the EPCHC office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 14 day
of August, 1991

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

for _____
STEVE SMALLWOOD, P.E., Director
Division of Air Resources Management

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Permit Number: AC 29-194508
Expiration Date: Dec. 31, 1992
County: Hillsborough
Latitude/Longitude: 27°51'28"N
82°23'15"W
Project: South Ammonium Phosphate Cooler

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

Authorization to modify the south ammonium phosphate cooler to handle up to 54.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes intern improvements to the existing wet cyclones to be followed by replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged through a 4.3 ft. diameter stack that is 125 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

This construction permit replaces permit No. AO 29-152266. NEDS No. 0008, Point ID 24.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received March 25, 1991
2. DER letter dated April 23, 1991
3. Cargill letter dated May 1, 1991
4. EPCHC letter dated July 16, 1991
5. Cargill letter dated July 19, 1991

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or

GENERAL CONDITIONS:

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source

GENERAL CONDITIONS:

arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;

GENERAL CONDITIONS:

- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this source shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The dry cyclone/venturi scrubber shall be designed for a particulate matter emission concentration of less than 0.04 grains/dscf.

Emission Restrictions

4. Particulate matter emissions, including PM_{10}, shall not exceed any of the following: 0.30 lbs/ton MAP, 0.04 grains/dscf, 12.0 lbs/hr, and 51.0 TPY.

5. Fluorides emissions shall not exceed 1.0 lbs/hr and 4.25 TPY.

6. Visible emissions shall not exceed 20% opacity.

7. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

8. Production shall not exceed 54.2 TPH MAP.

SPECIFIC CONDITIONS:

9. The source may operate 24 hrs/day, 7 days/wk, and 52 wks/yr, but not more than 8,500 hrs/yr.

10. Prior to issuance of an operating permit for this source, an Operation and Maintenance (O & M) Plan will be submitted defining the normal scrubber operating conditions and maintenance requirements. Based on the O & M plan, the Department may specify the scrubber operation parameters that the compliance tests are to be conducted at.

11. Covers shall be kept on all openings in process equipment except during services. Any leaks in the vessels, ducts, and control systems shall be repaired promptly to minimize fugitive emissions.

Compliance Requirements

12. This source shall be tested for particulate matter, visible emissions, and fluorides within 30 days after the intern improvements to the wet cyclones and within 30 days after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

13. The Environmental Protection Commission of Hillsborough County (EPCHC) shall be notified in writing a minimum of 15 days in advance of any compliance test to be conducted on this source.

Administrative Requirements

14. The permittee shall maintain records showing the source operating time, MAP feed to the cooler, scrubber liquid flow, and gas pressure drop across the venturi scrubber.

15. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

16. An application for an operation permit must be submitted to the EPCHC office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation

SPECIFIC CONDITIONS:

permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 14 day
of August, 1991

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

for _____
STEVE SMALLWOOD, P.E., Director
Division of Air Resources Management

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To: _____ Location: _____

To: _____ Location: _____

To: _____ Location: _____

From: _____ Date: _____

Interoffice Memorandum

TO: Steve Smallwood

FROM: Clair Fancy I signed

DATE: August 7, 1991

SUBJ: Approval of Construction Permits AC 29-194504, 507, & 508
Cargill Fertilizer, Inc.

Attached for your approval and signature are permits prepared by the Bureau of Air Regulation for the above mentioned company to construct two ammonium phosphate granulators and a south ammonium phosphate cooler.

Comments were submitted by the Environmental Protection Commission of Hillsborough County and the applicant. Minor changes to the raw feed input rate, scrubber test parameters, test procedures, and expiration dates were made to the permits.

I recommend your approval and signature.

CF/WH/plm

Attachments

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

July 19, 1991 CERTIFIED MAIL: 723 750 638

RECEIVED
JUL 22 1991
Division of Air
Resources Management

Mr. Clair Fancy
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Draft Construction Permits - Comments
Permits AC29-194504, AC29-194507 and AC29-194508

Dear Mr. Fancy,

Following are comments on the above-referenced draft permits for which notice was published in the Tampa Tribune on July 11, 1991. Cargill Fertilizer is in general agreement on the permit conditions, however, we request that the following modifications be made in order to better define our obligations under the permits:

Permits AC29-194504 and AC29-194507:

COVER SHEET:
Replace "26.6 TPH phosphoric acid" with "14.0 TPH P2O5". Due to normal fluctuations in acid concentration, the flow of acid into the system for a desired production rate can and does change. However, for a given product rate, the P2O5 input rate is constant. For the permitted production rate of 27.1 tons per hour of MAP the corresponding P2O5 input rate is 14.0 TPH. This requested change does not affect the production rates or emission calculations provided in the permit application.

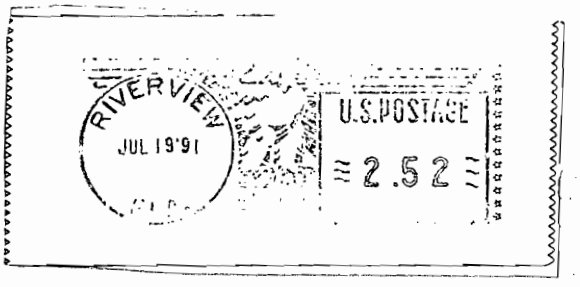
SPECIFIC CONDITION #10:
Change to:

> Phosphoric acid input to the plant shall not exceed 14.0 TPH P2O5.

As described above, this change will clarify the production limits of the units and provide clear guidelines for operating personnel.

SPECIFIC CONDITION #15:
Change to:

> Prior to issuance of an operating permit for this source, an Operation and Maintenance Plan will be submitted defining



MR. CLAIR FANCY
DEPARTMENT ENVIRONMENTAL REGULATION
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD N.E.
TALLAHASSEE, FL 323-99-2400

the normal scrubber operating conditions and maintenance requirements.

The draft permit condition unreasonably requires that scrubber flows always be maintained at or above values that existed during the compliance tests. This, in essence, is a requirement to continuously increase flows since any operation at a lower flow would be a permit violation. Under normal operation it is expected that, due to equipment wear, strainer plugging, liquid supply and discharge pressures, etc., flows to the scrubber will fluctuate within acceptable limits. Currently, these sources have permits containing Specific Conditions which describe the normal operating conditions. Since the subject construction permits will result in some operational changes, the current scrubber operating conditions are likely to change. Prior to issuance of the Operating Permits, Cargill Fertilizer, Inc. will evaluate the scrubber operation and submit the information to the Department.

SPECIFIC CONDITION #16:

Change the requirement to ammonia testing to the following:

Ammonia emissions shall be determined using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers, the last impinger dry and a probe with an external design similar to that used in EPA Method 16, or any other test method agreed to by the permittee, Department, and the Environmental Protection Commission of Hillsborough County (EPCHC).

The above described method is the one currently being used by agreement with the EPCHC. The method described in the draft permit was found by Cargill Fertilizer, Inc. to result in extremely large variations in test results during steady-state operation of the source. As a result the above method was developed by Cargill Fertilizer then reviewed and approved for use by the EPCHC.

Permit AC29-194508

COVER PAGE:

The expiration date of Dec. 31, 1992 on the cover page is correct, however, subsequent pages erroneously indicate a March 31, 1992 expiration.

SPECIFIC CONDITION #10:
Change to:

> Prior to issuance of an operating permit for this source, an Operation and Maintenance Plan will be submitted defining the normal scrubber operating conditions and maintenance requirements.

As discussed above, the draft permit condition unreasonably requires that scrubber flows always be maintained at or above values that existed during the compliance tests. This, in essence, is a requirement to continuously increase flows since any operation at a lower flow would be a permit violation. Under normal operation it is expected that, due to equipment wear, strainer plugging, liquid supply and discharge pressures, etc., flows to the scrubber will fluctuate within acceptable limits. Also, the scrubber pressure drop will increase as the system becomes dirty. Currently, these sources have permits containing Specific Conditions which describe the normal operating conditions. Since the subject construction permits will result in some operational changes, the current scrubber operating conditions are likely to change. Prior to issuance of the Operating Permits, Cargill Fertilizer, Inc. will evaluate the scrubber operation and submit the information to the Department.

Should you have any questions or require additional information, please feel free to call me or Ozzie Morris at 671-6207 or 671-6153, respectively.

Sincerely,

David B. Jellerson

David B. Jellerson, PE
Environmental Supervisor

cc: D. Graziani - EPCHC
D. Jellerson
B. Weyers
J. Singletary
D. Buff
P-8, 9, 10
H. Handa
B. Thomas, SW Dist

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

CERTIFIED MAIL: 723 750 637

July 19, 1991

RECEIVED
JUL 22 1991
Division of Air
Resources Management

Mr. Clair Fancy
Florida Department of Environmental
Regulation
2600 Blair Stone Road
Tallahassee, FL 32399

Subject: Proof of Publication
Notice of Intent To Issue
A Permit to Cargill Fertilizer, Inc.
To Modify MAP Granulators and Cooler
Operation
Permit Nos. AC29-194504, 194507, 194508

Gentlemen:

You will find attached Proof of Publication of receipt by Florida State Department of Environmental Regulation of an application for above listed permit from Gardinier, Inc.

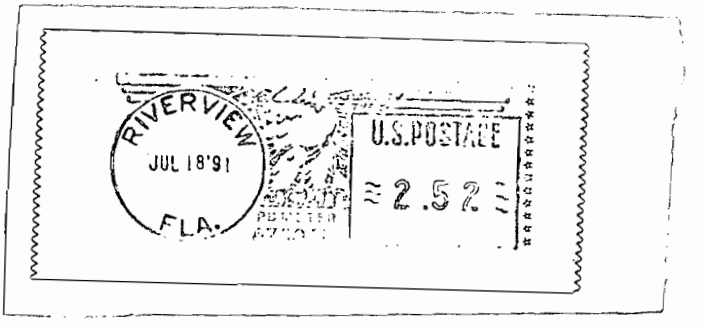
If there are any questions, please contact me.

Sincerely,

E. O. Morris
Environmental Manager

:gf

File P-8, 9, 10
cc: H. Hendle
B. Thomas, SW Dist.
D. Graziani, EPCHC



MR. CLAIR FANCY
FLORIDA DEPARTMENT OF ENVIRONMENT
REGULATION/TWIN TOWERS OFFICE B
2600 BLAIR STONE BUILDING
TALLAHASSEE, FL 323-99-2400

THE TAMPA TRIBUNE

Published Daily
Tampa, Hillsborough County, Florida

State of Florida
County of Hillsborough } ss.

Before the undersigned authority personally appeared R. Putney, who on oath says that he is Accounting Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

in the matter of

ISSUE PERMITS

was published in said newspaper in the issues of

July 11, 1991

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa, in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm, or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

R. Putney

Notary Public, State of Florida
My Commission Expires Sept. 3, 1994
Bonded Thru Troy Fain - Insurance Inc.

SCOTT D. WILLIAMS NOTARY PUBLIC STATE OF FLORIDA

Sworn to and subscribed before me, this 11 ***day of*** July ***A.D. 19*** 91

Scott D. Williams

(SEAL)

P 8, 9

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL
REGULATION NOTICE OF
INTENT TO ISSUE PERMITS

The Department of Environmental Regulation gives notice of its intent to issue permits (AC29-194504, 29-194507, and 29-194508) to Cargill Fertilizer, Inc., 8813 Highway 41 South, Riverview, Hillsborough County, Florida 33569. The permits will allow the applicant to construct (modify) the Nos. 3 and 4 ammonium phosphate (MAP) granulators and south ammonium phosphate cooler. The modifications involve process and scrubber improvements to the granulators to increase MAP production to 27.1 TPH per plant (54.2 TPH total) and replacement of the cooler's air pollution control system to handle the higher MAP production rate (54.2 TPH).

After modifications, the allowable emissions from each MAP plant will be 5 lbs/hr particulate (21.3 TPH), 1 lb/hr fluoride (4.3 TPY), 100 lbs/hr ammonia (425 TPY) and traces of the products of combustion of natural gas. The emissions from the cooler will be 12 lbs/hr particulate (51.0 TPY) and 1 lb/hr fluoride (4.3 TPY). The regulations do not require a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination. These emissions will not cause a violation of any ambient air quality standard or Prevention of Significant Deterioration (PSD) increment. The Department is issuing this intent to issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida
32399-2400
Department of Environmental Regulation
Southwest District
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347
Environmental Protection Commission
of Hillsborough County
1410 North 21st Street
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

3414 7/11/91

COMMISSION
PHYLLIS BUSANSKY
JOE CHILLURA
PAM IORIO
SYLVIA KIMBELL
JAN KAMINIS PLATT
JAMES D. SELVEY
ED TURANCHIK

FAX (813) 272-5157

ENVIRONMENTAL PROTECTION COMMISSION
HILLSBOROUGH COUNTY

ROGER P. STEWART
EXECUTIVE DIRECTOR
ADMINISTRATIVE OFFICES
AND
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7554

July 16, 1991

Mr. Barry Andrews
Division of Air Resources Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: MAP Plants Nos. 3 and 4 and South Cooler - Cargill Fertilizer, Inc.

Dear Mr. Andrews:

I have completed my review of the following permits for the above facility:

No. 3 Ammonium Phosphate Granulator - AC29-194504; NEDS 0008-22
No. 4 Ammonium Phosphate Granulator - AC29-194507; NEDS 0008-23
South Ammonium Phosphate Cooler - AC29-194508; NEDS 0008-24

I have assigned NEDS # and source point ID as above.

In my opinion all of the three permits are functional. The technical evaluation done is good especially the inclusion of Table 4-1, history of construction permits at Cargill Fertilizer, Inc. was a good idea. I may like to see, in the future, some sort of time limit for the new or modified sources during which these need to be tested after the start-up. Refer to attached example.

I have no further comment to offer.

Sincerely,

Bkalra

Ben Kalra
Air Permit Engineer

cc: Willie Hanks, FDER-Tallahassee

Attachment

EXAMPLE — LETTER TO BARRY ANDREWS.

PERMITTEE: Permit Number: AC 29-194504
AC 29-194507
Cargill Fertilizer, Inc. Expiration Date: March 31, 1992

SPECIFIC CONDITIONS:

10. Phosphoric acid input to the plant shall not exceed 26.6 TPH.

11. Ammonia input to the plant shall not exceed 3.4 TPH.

12. Natural gas consumption shall not exceed 2,440 CFH.

13. The source may operate 24 hrs/day, 7 days/week, and 52 weeks/year, but not more than 8,500 hrs/year.

14. The source shall cease operation whenever the air pollution control equipment on this plant or the south ammonium phosphate cooler is not operating in compliance with its permit conditions or regulations. Covers shall be kept on all openings in process equipment except during service. Any leaks in the vessels, ducts, and control systems shall be repaired promptly to minimize fugitive emissions.

15. The liquid flow to the scrubbers shall be maintained at or above the values that existed during the compliance tests.

Compliance Requirements

within 30 days of start up

16. This source shall be tested for particulate matter, visible emissions, fluorides, and ammonia annually by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using an EPA Method 6 train with 15 ml of 1.0 N sulfuric acid placed in the midget bubbler and the first two midget impingers, final impinger dry, or any other test method agreed to by the permittee, Department, and the Environmental Protection Commission of Hillsborough County (EPCHC).

17. The EPCHC shall be notified in writing a minimum of 15 days in advance of any compliance test to be conducted on this source.

Administrative Requirements

18. The permittee shall maintain records showing the source operating time, phosphoric acid and ammonia consumption, MAP production, and scrubbers liquid flow for this source for a minimum of 2 years.

P 832 539 799

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

UNITED STATES POSTAL SERVICE

Sent to	Mr. Ozzie Morris
Street & No.	Cargill Fert.
P.O., State & ZIP Code	Riverview, Fl
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	7-1-91

AC 29-194504
" " 507
" " 508

PS Form 3800, June 1990

PLEASE KEEP THIS SLIP WITH PERMIT UNTIL MAILOUT

Cargill — 29-194504, 507, 508
Company — Permit Number

Date	DAY
~~5-21-91~~	~~19~~
~~6-12-91~~	~~41~~
~~6-19-91~~	~~48~~
~~6-24-91~~	~~53~~
~~6-26-91~~	~~55~~
~~6-27-91~~	~~56~~
7-1-91	60

PKG-427 TEPD-431 PER-436 434 (504, 507) (508)

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. Ozzie Morris, Env. Mgr.
Cargill Fertilizer, Inc
8813 Hwy 41 South
Riverview, Fl 33569

4. Article Number
P 832 539 799

Type of Service:
☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X

7. Date of Delivery 7-5-91

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form 3811, Apr. 1989 ★U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

July 1, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Dear Mr. Morris:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits for the Nos. 3 and 4 ammonium phosphate granulators and south ammonium phosphate cooler, located at your phosphate fertilizer chemical plant near Riverview, Hillsborough County, Florida.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

Barry D. Andrews

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

CHF/WH/plm

Attachments

c: Bill Thomas, SWD
Jerry Campbell, EPCHC
David Buff, P.E.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permits by:

Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

DER File No. AC 29-194504
AC 29-194507
AC 29-194508
Hillsborough County

_____/

INTENT TO ISSUE

The Department of Environmental Regulation gives notice of its intent to issue permits (copies attached) for the proposed projects as detailed in the applications specified above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Cargill Fertilizer, Inc., applied on March 25, 1991, to the Department of Environmental Regulation for permits to construct (modify) the Nos. 3 and 4 ammonium phosphate granulators and south ammonium phosphate cooler, located at 8813 Highway 41 South, Riverview, Hillsborough County, Florida 33569.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, Florida Statutes and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven

days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have

the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for Barry D. Andrews

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 7-1-91 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Karen Baker 7-1-91
Clerk Date

Copies furnished to:

Bill Thomas, SWD
Jerry Campbell, EPCHC
David Buff, P.E.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMITS

The Department of Environmental Regulation gives notice of its intent to issue permits (AC 29-194504, 29-194507, and 29-194508) to Cargill Fertilizer, Inc., 8813 Highway 41 South, Riverview, Hillsborough County, Florida 33569. The permits will allow the applicant to construct (modify) the Nos. 3 and 4 ammonium phosphate (MAP) granulators and south ammonium phosphate cooler. The modifications involve process and scrubber improvements to the granulators to increase MAP production to 27.1 TPH per plant (54.2 TPH total) and replacement of the cooler's air pollution control system to handle the higher MAP production rate (54.2 TPH).

After modifications, the allowable emissions from each MAP plant will be 5 lbs/hr particulate (21.3 TPH), 1 lb/hr fluoride (4.3 TPY), 100 lbs/hr ammonia (425 TPY) and traces of the products of combustion of natural gas. The emissions from the cooler will be 12 lbs/hr particulate (51.0 TPY) and 1 lb/hr fluoride (4.3 TPY). The regulations do not require a Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) determination. These emissions will not cause a violation of any ambient air quality standard or Prevention of Significant Deterioration (PSD) increment. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's

action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Southwest District
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

Environmental Protection Commission
of Hillsborough County
1410 North 21st Street
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Cargill Fertilizer, Inc.
Riverview, Hillsborough County, Florida

Monoammonium Phosphate Plant (MAP)

Source	File No.
No. 3 Ammonium Phosphate Granulator	AC 29-194504
No. 4 Ammonium Phosphate Granulator	AC 29-194507
South Ammonium Phosphate Cooler	AC 29-194508

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

July 1, 1991

I. General Information

A. Applicant

Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

B. Request

On March 25, 1991, Cargill Fertilizer, Inc. submitted three applications for permits to modify the ammonium phosphate plants located at their existing phosphate fertilizer facility (SIC 2874). These plants manufacture monoammonium phosphate (MAP). This facility is located at 8813 Highway 41 South, Riverview, Hillsborough County, Florida 33569. The applications were considered complete on May 3, 1991.

C. Project

The applicant is requesting permission to make modifications to the existing Nos. 3 and 4 ammonium phosphate granulators and cooler (south ammonium phosphate system). The modifications to the granulators include automatic process controls, changes to the ammonia vaporizer, upgrading the duct evacuation system, and the use of an acid scrubber liquid. These modifications will allow the production to increase to 27.1 TPH of MAP per plant (54.2 TPH total for the south system). Initially, the existing wet cyclone scrubber system for the south ammonium phosphate cooler will be upgraded to handle the higher production rates of the Nos. 3 and 4 ammonium phosphate granulators. Later it will be modified by replacing the existing wet cyclone system with a new system using dry cyclones followed by a wet venturi scrubber.

D. Air Pollution Emissions

The ammonium phosphate granulators emit particulate matter (PM/PM_{10}), fluoride (F), ammonia (NH_3), and trace amounts of the products of combustion (SO_2, NOx, CO_2, and VOC). The cooler emits PM and F. The tables below summarize the current and requested permitted emissions of PM, F, and NH_3 from the sources for 8,500 hrs/yr of operation.

NO. 3 AMMONIUM PHOSPHATE GRANULATOR

	PM		F		NH_3	
Emission	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Proposed	5.0	21.25	1.0	4.25	100	425
Current	5.7	24.97	1.0	4.38	100	438
Change	(0.7)	(3.72)	0	(0.13)	0	(13)

NO. 4 AMMONIUM PHOSPHATE GRANULATOR

Emission	PM lbs/hr	PM TPY	F lbs/hr	F TPY	NH_3 lbs/hr	NH_3 TPY
Proposed	5.0	21.25	1.0	4.25	100	425
Current	6.3	27.59	1.0	4.38	100	438
Change	(1.3)	(6.34)	0	(0.13)	0	(13)

SOUTH COOLER

Emission	PM lbs/hr	PM TPY	F lbs/hr	F TPY
Proposed	12.0	51.0	1.0	4.25
Current	23.1	101.2	1.0	4.38
Change	(11.1)	(50.2)	0	(0.13)

Actual emissions from the existing sources have been less than the allowable emissions. The following tables summarize the contemporaneous emission change for these projects.

PARTICULATE MATTER (TPY)

Source	Proposed	Actual	Change
No. 3 MAP	21.25	3.49	17.76
No. 4 MAP	21.25	8.60	12.65
S. Cooler	51.0	61.38	(10.38)
TOTAL	93.50	73.47	20.03
Previous Contemporaneous Change (Table 4-1)			(7.35)
Net Contemporaneous Change			12.68

FLUORIDES (TPY)

Source	Proposed	Actual	Change
No. 3 MAP	4.25	1.28	2.97
No. 4 MAP	4.25	1.82	2.43
S. Cooler	4.25	0.86	3.39
TOTAL	12.75	3.96	8.79
Previous Contemporaneous Change (Table 4-1)			(26.01)
Net Contemporaneous Change			(17.22)

Table 4-1. History of Construction Permits at Gardinier, Inc. (now Cargill Fertilizer, Inc.)

Date	Project	PM (TPY) Previous Actual	PM (TPY) Permitted Maximum	PM (TPY) Net Change	Fluoride (TPY) Previous Actual	Fluoride (TPY) Permitted Maximum	Fluoride (TPY) Net Change	SO_2 (TPY) Previous Actual	SO_2 (TPY) Permitted Maximum	SO_2 (TPY) Net Change
5/29/87	No. 8 Sulfuric Acid expansion (2,500 TPD) AC29-130371; PSD-FL-118	–	–	–	–	–	–	1,606.0	1,826.4	219.0
10/14/87	No. 5 DAP Plant Expansion AC29-135083	100.7[a]	87.6	-13.1	43.3[a]	14.5	-28.8	238.3	139.4	-98.9
11/3/87	Dock Conveying System AC29-136776	7.7	13.44	5.74	–	–	–	–	–	–
1/25/88	Vessel Loading-Phosphate Products AC29-140201	10.1	7.4	-2.7	–	–	–	–	–	–
2/3/89	Phosphoric Acid Clarifier/Stg. Tank AC29-156206	–	–	–	0.0	0.0053	0.0053	–	–	–
4/20/90	GTSP Truck Loading AC29-175044	0.0	0.94	0.94	–	–	–	–	–	–
2/91	Phosphoric Acid Rate Increase AC29-186726	–	–	–	7.51	10.29	2.78	–	–	–
1/91 (Applied)	Na_2SiF_6 Bagging	0.05	1.82	1.77	–	–	–	–	–	–
			Total =	-7.35		Total =	-26.01		Total =	-98.9[b]

[a]Includes emissions from sources to be shut down.

[b]Total change since last PSD for SO_2 was issued.

Note: TPY = Tons per year.

AMMONIA (TPY)

Source	Proposed	Actual	Change
No. 3 MAP	425	6.6	418.4
No. 4 MAP	425	25.8	399.2
S. Cooler	---	----	---
TOTAL	850	32.4	817.6

II. Rule Applicability

The proposed projects, modifications to the Nos. 3 and 4 ammonium phosphate granulators and the south MAP cooler at a phosphate fertilizer plant, are subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code (F.A.C.).

The sources will be in an area designated nonattainment for ozone (F.A.C. Rule 17-2.410), unclassifiable for TSP, PM_{10}, and sulfur dioxide (F.A.C. Rule 17-2.430), and attainment for the other criteria pollutants (F.A.C. Rule 17-2.420).

The facility (SIC 2874) is a major source of particulate matter, sulfur dioxide, fluorides, and ammonia because the potential emissions of each of these pollutants exceed 100 TPY.

The proposed projects are not subject to the Prevention of Significant Deterioration (PSD) regulations (F.A.C. Rule 17-2.500) or New Source Review for Nonattainment Areas (F.A.C. Rule 17-2.510) because the net contemporaneous emissions increases do not exceed any significant emission rate listed in Table 500-2 of F.A.C. Rule 17-2.500(2)(d)2. for any pollutant.

The projects are are subject to F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements; F.A.C. Rule 17-2.600(3), Phosphate Processing; F.A.C. Rule 17-2.650(2)5., Phosphate Processing Operations; F.A.C. Rule 17-2.620(2), Objectionable Odor Prohibited; F.A.C. Rule 17-2.620(3), Unconfined Emissions; F.A.C. Rule 17-2.700, Source Sampling; and the Department's toxic pollutant policy.

III. Technical Evaluation

The applicant is proposing to increase MAP production of the No. 3 ammonium phosphate granulator from 19 to 27.1 TPH and No. 4 from 21 to 27.1 TPH, and the south ammonium phosphate cooler to 54.2 TPH. Modifications to the granulators include recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and conversion to acid scrubbing on the primary scrubber. Modification of the cooler system includes an initial upgrading by

the addition of new spray nozzles and later replacing the whole existing cooler control system with two dry cyclones followed by a wet venturi scrubber. The applicant proposes to increase production of these systems without increasing the allowable emissions of particulate matter, fluorides, sulfur dioxide, and ammonia. The facility will have a net contemporaneous emission reduction for particulate matter and fluorides. Measured ammonia emissions from the Nos. 3 and 4 ammonium phosphate granulators are 1.5 and 5.89 lbs/hr, respectively. Thus, an allowable ammonia emission of 100 lbs/hr per plant is equivalent to a 817.6 TPY increase in emissions from both plants. Also, based on the screening model, an emission of 100 lbs/hr of ammonia from each granulator will not cause an ambient air concentration that exceeds the no-threat level of 100 ug/m^3, annual average.

IV. Air Quality Analysis

It is the judgement of the Department that the allowable emissions of particulate matter, fluorides, and ammonia will not create a health hazard or cause/contribute to an ambient air quality violation.

V. Conclusion

Based on the information provided by Cargill Fertilizer, Inc., the Department has reasonable assurance that the proposed projects, modifications to the Nos. 3 and 4 MAP plants and the south ammonium phosphate cooler, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Permit Number: AC 29-194504
Expiration Date: March 31, 1992
County: Hillsborough
Latitude/Longitude: 27°51'28"N
82°23'15"W
Project: No. 3 Ammonium Phosphate (MAP) Granulator, South Ammonium System

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

Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using approximately 26.6 TPH phosphoric acid and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 3.33 ft. diameter by 90 ft. high stack. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

This construction permit replaces permit No. AO 29-152717. NEDS No. 0008, Point ID 22.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received March 25, 1991
2. DER letter dated April 23, 1991
3. Cargill letter dated May 1, 1991

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Permit Number: AC 29-194507
Expiration Date: March 31, 1992
County: Hillsborough
Latitude/Longitude: 27°51'28"N
82°23'15"W
Project: No. 4 Ammonium Phosphate (MAP) Granulator, South Ammonium System

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

Authorization to modify the ammonium phosphate (MAP) granulator. Modifications include: improved recycle control automation, ammonia vaporizer stabilization, evacuation system retrofit, and converting the primary scrubber to acid scrubbing. The modified source will be capable of producing 27.1 TPH of monoammonium phosphate using approximately 26.6 TPH phosphoric acid and 3.4 TPH ammonia. Air pollutants from this source are discharged through a 3.33 ft. diameter by 90 ft. high stack. This source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

This construction permit replaces permit No. AO 29-152718. NEDS No. 0008, Point ID 23.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received March 25, 1991
2. DER letter dated April 23, 1991
3. Cargill letter dated May 1, 1991

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or

GENERAL CONDITIONS:

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source

GENERAL CONDITIONS:

arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;

GENERAL CONDITIONS:

- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this source shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The ARCO and Chemco scrubbers shall be designed for a minimum capture efficiency of 95% for particulate, fluorides, and ammonia.

Emission Restrictions

4. Particulate matter emissions, including PM_{10}, shall not exceed 0.3 lbs/ton MAP produced, 5.0 lbs/hr, and 21.25 TPY.

5. Fluorides emissions shall not exceed 1.0 lbs/hr and 4.25 TPY.

6. Ammonia emissions shall not exceed 100 lbs/hr and 425 TPY.

7. Visible emissions shall not exceed 20% opacity.

8. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

9. Production shall not exceed 27.1 TPH MAP. DAP shall not be produced by this plant.

SPECIFIC CONDITIONS:

10. Phosphoric acid input to the plant shall not exceed 26.6 TPH.

11. Ammonia input to the plant shall not exceed 3.4 TPH.

12. Natural gas consumption shall not exceed 2,440 CFH.

13. The source may operate 24 hrs/day, 7 days/week, and 52 weeks/year, but not more than 8,500 hrs/year.

14. The source shall cease operation whenever the air pollution control equipment on this plant or the south ammonium phosphate cooler is not operating in compliance with its permit conditions or regulations. Covers shall be kept on all openings in process equipment except during service. Any leaks in the vessels, ducts, and control systems shall be repaired promptly to minimize fugitive emissions.

15. The liquid flow to the scrubbers shall be maintained at or above the values that existed during the compliance tests.

Compliance Requirements

16. This source shall be tested for particulate matter, visible emissions, fluorides, and ammonia annually by EPA Methods 1, 2, 4, 5, 6, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (24.4-27.1 TPH MAP). The flow (GPM) of the scrubber liquids shall be included in the test report. Ammonia emissions shall be determined using an EPA Method 6 train with 15 ml of 1.0 N sulfuric acid placed in the midget bubbler and the first two midget impingers, final impinger dry, or any other test method agreed to by the permittee, Department, and the Environmental Protection Commission of Hillsborough County (EPCHC).

17. The EPCHC shall be notified in writing a minimum of 15 days in advance of any compliance test to be conducted on this source.

Administrative Requirements

18. The permittee shall maintain records showing the source operating time, phosphoric acid and ammonia consumption, MAP production, and scrubbers liquid flow for this source for a minimum of 2 years.

PERMITTEE:

Cargill Fertilizer, Inc.

Permit Number: AC 29-194504
AC 29-194507

Expiration Date: March 31, 1992

SPECIFIC CONDITIONS:

19. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

20. An application for an operation permit must be submitted to the EPCHC office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____

STEVE SMALLWOOD, P.E., Director
Division of Air Resources
Management

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, Florida 33569

Permit Number: AC 29-194508
Expiration Date: Dec. 31, 1992
County: Hillsborough
Latitude/Longitude: 27°51'28"N
82°23'15"W
Project: South Ammonium Phosphate Cooler

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

Authorization to modify the south ammonium phosphate cooler to handle up to 54.2 TPH ammonium phosphate (MAP) from Nos. 3 and 4 ammonium phosphate granulators. The modification includes intern improvements to the existing wet cyclones to be followed by replacement of the existing duct spray/wet cyclone control device with a system consisting of two dry cyclones followed by a wet venturi scrubber. Air pollutants are discharged through a 4.3 ft. diameter stack that is 125 ft. high. The source is located at the permittee's phosphate fertilizer facility at 8813 Highway 41 South, Riverview, Florida 33569. The UTM coordinates of this facility are Zone 17, 362.6 km E and 3082.4 km N.

This construction permit replaces permit No. AO 29-152266. NEDS No. 0008, Point ID 24.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received March 25, 1991
2. DER letter dated April 23, 1991
3. Cargill letter dated May 1, 1991

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or

GENERAL CONDITIONS:

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source

GENERAL CONDITIONS:

arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;

GENERAL CONDITIONS:

- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The construction of this source shall reasonably conform to the plans and schedule submitted in the application.

2. The stack sampling facilities must comply with F.A.C. Rule 17-2.700(4).

3. The dry cyclone/venturi scrubber shall be designed for a particulate matter emission concentration of less than 0.04 grains/dscf.

Emission Restrictions

4. Particulate matter emissions, including PM_{10}, shall not exceed any of the following: 0.30 lbs/ton MAP, 0.04 grains/dscf, 12.0 lbs/hr, and 51.0 TPY.

5. Fluorides emissions shall not exceed 1.0 lbs/hr and 4.25 TPY.

6. Visible emissions shall not exceed 20% opacity.

7. The operation of this source shall not result in the emissions of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-2.600(c)2.

Operation Requirements

8. Production shall not exceed 54.2 TPH MAP.

SPECIFIC CONDITIONS:

9. The source may operate 24 hrs/day, 7 days/wk, and 52 wks/yr, but not more than 8,500 hrs/yr.

10. The liquid flow and gas pressure drop across the venturi scrubber shall be maintained at or above the values that existed during the compliance tests.

11. Covers shall be kept on all openings in process equipment except during services. Any leaks in the vessels, ducts, and control systems shall be repaired promptly to minimize fugitive emissions.

Compliance Requirements

12. This source shall be tested for particulate matter, visible emissions, and fluorides after the intern improvements to the wet cyclones and after installation of the dry cyclone/venturi scrubber system by EPA Methods 1, 2, 3, 4, 5, 9, and 13A or 13B (40 CFR 60, Appendix A, July 1, 1990) while operating at 90-100% of its permitted capacity (48.8-54.2 TPH MAP). The scrubber liquid flow and gas pressure drop shall be included in the test report.

13. The Environmental Protection Commission of Hillsborough County (EPCHC) shall be notified in writing a minimum of 15 days in advance of any compliance test to be conducted on this source.

Administrative Requirements

14. The permittee shall maintain records showing the source operating time, MAP feed to the cooler, scrubber liquid flow, and gas pressure drop across the venturi scrubber.

15. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

16. An application for an operation permit must be submitted to the EPCHC office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

PERMITTEE:
Cargill Fertilizer, Inc.

Permit Number: AC 29-194508
Expiration Date: March 31, 1992

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____

STEVE SMALLWOOD, P.E., Director
Division of Air Resources
Management

BEST AVAILABLE COPY

AIRBORNE EXPRESS

RECEIVER'S COPY

202 (5/86)

ORIGIN AIRBILL NO. 495685293

FROM (COMPANY NAME)

ADDRESS

CITY RIVERVIEW STATE FL ZIP CODE (REQUIRED)

SENT BY (NAME/DEPT.) PHONE

TO (COMPANY NAME) FLORIDA STATE DEPT. ENV REGULATION

ADDRESS 2600 BLAIR STONE ROAD

CITY TALLAHASSEE, FL STATE ZIP CODE (REQUIRED) 33569

ATTN. (NAME/DEPT.) MR. CLAIR FANCY PHONE

BILLING REFERENCE INFORMATION TO APPEAR ON INVOICE

RECEIVER'S AIRBORNE EXPRESS ACCOUNT NO.

TYPE OF PACKAGING

- ☐ EXPRESS AD PACK ENVELOPE
- ☑ LETTER EXPRESS (UP TO 8 OZ.)
- ☐ EXPRESS PACK BOX/TUBE
- ☐ MAG TAPE PACK

DESCRIPTION OF CONTENTS

NO. OF PACKAGES | WEIGHT (LBS.)

SENDER'S C.O.D. $

ROUTING

TLH

BILL CHARGES TO (ASSUMED SENDER UNLESS OTHERWISE SPECIFIED)

- ☐ SENDER
- ☐ RECEIVER
- ☐ 3RD PARTY _____ AIRBORNE EXPRESS ACCOUNT NO.
- ☐ PAID IN ADVANCE $ _____ CHECK NUMBER _____

TYPE OF SPECIAL SERVICE (EXTRA CHARGES MAY APPLY)

- ☐ SPECIAL PICKUP
- ☐ SATURDAY DELIVERY
- ☐ SPECIAL DELIVERY _____ TIME
- ☐ HOLD AT AIRBORNE FOR PICKUP (NO CHARGE)
- ☐

ORIGIN AIRBILL NO. 495685293 | AIRBORNE SIGNATURE X | DATE RECEIVED 5/10/90

TO REMOVE COPY INSERT PENCIL HERE AND SLIDE UP

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

June 5, 1991

CERTIFIED MAIL: 723 750 62/

RECEIVED
JUN 07 1991
Division of Air
Resources Management

Mr. John Glunn
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Subject: Construction Permit Application - MAP Production
Ammonia Emissions

Dear Mr. Glunn:

As we discussed during our meeting on May 29, 1991, please find attached copies of a completed consent order between Cargill Fertilizer, Inc. (formerly Gardinier, Inc.) and the Environmental Protection Commission of Hillsborough County. This consent order, which has been closed, addressed nuisance odors from the facility. You will note that condition number 9.A. of the consent order required the review and appropriate control of ammonia emissions from the facility (including the subject MAP plants). As a result of this process, an ammonia flare system was installed, emission limitations were agreed to, and a testing requirement was established. A copy of the ammonia stack test method currently being used is also attached for your information.

Cargill Fertilizer, Inc. strongly believes that additional limits on ammonia emissions from the subject sources are unnecessary. As per the supporting literature that we have provided you, the existing emission limitations are fully protective of the health and welfare of our employees and the surrounding community. To the best of our knowledge, these MAP plants are the only such facilities in the State of Florida, and possibly the country, which have ammonia emission limits as well as a full-time operating ammonia flare system.

It is our understanding from our meeting that the Department will not impose additional ammonia limitations on these sources at this time. We further understand that the Department may address ammonia emissions state-wide and that all sources of ammonia may be re-evaluated as a result of the findings.

Should you have any questions or require additional information, please feel free to call me or Ozzie Morris at 671-6207 or 671-6153, respectively.

Sincerely,

David B. Jellerson, P.E.
Environmental Supervisor

cc: Willard Hanks
P-8, 9, 10

Wittle
Mathot
Clark

ENVIRONMENTAL PROTECTION COMMISSION
HILLSBOROUGH COUNTY

ROGER P. STEWART
EXECUTIVE DIRECTOR
MAIN OFFICES
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960
AIR PROGRAM
TELEPHONE (813) 272-5530
WASTE MANAGEMENT PROGRAM
TELEPHONE (813) 272-5788

RECEIVED
SEP 27 1990
Ans'd.....

September 25, 1990

Mr. E. O. Morris
Environmental Manager
Gardinier Inc.
8813 Hwy 41 South
Riverview, FL 33569

RE: Case No. 80407KS000804

Dear Mr. Morris:

The Commission has reviewed your response to the referenced case and has found your response to be satisfactory. By receipt of this notice, be informed that the case noted above has been closed. Be advised that this notice in no way absolves your firm from the responsibility to observe all applicable regulations.

Thank you for your cooperation.

Sincerely,

Jerry Campbell /for
Iwan Choronenko
Director
Air Management Division

KS/cmg

cc: Sara Fotopulos; Chief Counsel, EPC
C. S. Lee, FDER

P-16

MACFARLANE, FERGUSON, ALLISON & KELLY
ATTORNEYS AND COUNSELORS AT LAW

2910 FIRST FLORIDA TOWER
P. O. BOX 1531
TAMPA, FLORIDA 33601
(813) 223-2411

215 MADISON STREET
P. O. BOX 1531
TAMPA, FLORIDA 33601
(813) 223-2411

ONE HARBOUR PLACE, SUITE 876
P. O. BOX 1531
TAMPA, FLORIDA 33601
(813) 223-2411

200 NORTH GARDEN AVENUE
P. O. DRAWER 2197
CLEARWATER, FLORIDA 34617
(813) 441-1763
TELECOPIER (813) 441-9959

CABLE ADDRESS "MACFAK"
TELEX 529394 MFAK
TELECOPIER (813) 223-7926

804 FIRST FLORIDA BANK BUILDING
P. O. BOX 82
TALLAHASSEE, FLORIDA 32302
(904) 224-1215
TELECOPIER (904) 222-8826

IN REPLY REFER TO:

January 23, 1989

Tampa

Mr. Ozzie Morris
Environmental Manager
Gardinier, Inc.
P.O. Box 3269
Tampa, FL 33601

Re: Consent Order 80407KS000804 (Air)

Dear Ozzie:

Enclosed please find the original executed Consent Order entered between Gardinier and E.P.C. The effective date of the Consent Order is January 17, 1989. The compliance plan described in paragraph 9 of the Order is due on or before April 17, 1989.

In addition, the payments required by paragraphs 11 and 12 of the Order are due no later than February 1, 1989.

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Carter B. McCain

CBM/mle
Encl.

P-14

BEFORE THE
ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY

ENVIRONMENTAL PROTECTION COMMISSION
OF HILLSBOROUGH COUNTY, FLORIDA,

Complainant,

vs. Case No. 80407KS000804

GARDINIER, INCORPORATED,

Respondent.

CONSENT ORDER

This Consent Order is made and entered into between the Environmental Protection Commission of Hillsborough County (Commission) and Gardinier, Incorporated (Gardinier), pursuant to Chapter 84-446, Laws of Florida and Interagency Agreement with the Florida Department of Environmental Regulation (DER).

1. Gardinier is a corporation duly authorized to conduct business in the State of Florida. Gardinier owns and operates a facility located on U.S. Highway 41 in Gibsonton, Hillsborough County, Florida.

2. Gardinier's business activities include the production of commercial fertilizer, including the storage and handling of ammonia. The operation of the facility is governed by the conditions of various DER permits, the Rules of the Commission, and the Florida Administrative Code.

The Commission alleges that:

3. On April 7, 1988, pursuant to citizen complaints, Commission personnel inspected Sulfuric Acid Plant No. 7 at the Gardinier facility. Representatives of Gardinier informed the Commission personnel that faulty software, which is an integral part of the emission control system, permitted abnormal sulfur dioxide and ammonia emissions from the plant. These emissions allegedly caused a public nuisance in violation of Section 16, Chapter 84-446, Laws of Florida, as amended. Said emissions resulted from a malfunction of the sulfur burner, thereby causing decreased efficiency of the acid absorption tower which functions as an air pollution control device, all in violation of Section 1-3.20, Rules of the Commission. The Commission alleges that Gardinier did not report this event in a timely manner. As a result of this event, Gardinier was issued a Warning Notice, No. 80407KS000804.

4. In the past five years, including the event of April 7, 1988, the Commission has received and investigated numerous odor complaints from citizens concerning Gardinier's operation, which are alleged to have come from Gardinier's sulfuric acid plants, process water ponds, ammonia storage, and diammonium phosphate plants.

5. Gardinier responded to Warning Notice No. 80407KS000804 by letter dated April 8, 1988, a letter dated April 25, 1988, and met with Commission staff members on May 25, 1988. At that meeting, Gardinier discussed those corrections which were already undertaken, or were to be undertaken, at its plant facility. At the meeting, Commission staff members explained some of the possible corrective measures that might be necessary to address the alleged violations described in paragraphs 3. and 4. above.

6. In a letter from the Commission dated August 11, 1988, Gardinier received Warning Notice No. 80803KLS00815, alleging a violation of the Hillsborough County Environmental Protection Act caused from excess emissions on July 27, 1988, from the No. 4 Phosphoric Acid Plant. On August 23, 1988, the Commission received a letter from Gardinier dated August 22, 1988, which described the cause of the alleged discharge event and the corrective measures taken. The Commission accepts those corrective measures described in the August 22, 1988, letter.

7. Gardinier and the Commission agree that the matters contained in this Consent Order are separate from any enforcement action pertaining to water discharges which allegedly caused pollution of ground and surface waters, nuisance from such alleged discharges and the alleged failure to report such discharges, and the parties agree that this Order shall in no way affect those unrelated discharge events, if any.

WHEREFORE, Gardinier and the Commission mutually agree and it is ORDERED:

8. That this Consent Order and the agreements and covenants contained therein shall serve as a full and absolute settlement of all of the alleged violations described above, and any previous air emissions prior to the date of this Consent Order from the plant facility which the Commission could charge to be in violation of its Act and Rules. This agreement shall not be construed to be an admission on the part of Gardinier of any of the alleged violations described in this document, nor shall it be construed as an admission by Gardinier of violation of any federal, state or county law or regulation. This document shall not be permitted to be used in evidence in any proceeding at law except as otherwise provided herein.

9. Within ninety (90) days of the effective date of this Consent Order, or unless otherwise mutually agreed upon, Gardinier shall submit a written plan to the Director of the Commission for each of the items described below. During this

time Gardinier will attend progress meetings with the Commission staff every thirty (30) days. The plan shall incorporate an in-house review and description of those measures taken or that will be initiated to eliminate or reduce air emissions from the sources described below and other sources that may reasonably be expected to cause emissions in violation of Commission Rules.

A. A thorough review of likely sources of emissions from within the ammonia storage/distribution system, including all DAP/MAP plants. The plan shall include a proposal for the elimination or control of those identified emission points and an appropriate test schedule.

B. Gardinier will continue the thorough review of the sulfuric acid plant start-up and maintenance procedures. The plan will describe specific procedures for the reduction of emissions during start-up, the elimination or reduction of excessive gas leaks, and the installation of an interlock system controlled by stack SO2 monitor readings and by burner temperatures. The Commission acknowledges that the interlock system is now in place and operating.

C. Initiate a study designed to identify whether there is a flourine odor problem from the process water ponds.

D. A detailed proposal for the timely notification to the Commission of plant upsets which cause excess air emissions. The proposal shall define those incidents which should be immediately reported, and the procedures which will be followed.

10. Gardinier shall implement the plans according to a mutually agreed upon compliance schedule. If, after implementation of the corrective measures, citizen complaints regarding air emission continue and are substantiated by the EPC, Gardinier shall give consideration to the use of air monitors to identify whether additional corrective measures may be required.

11. Within fifteen (15) days of the effective date of this Consent Order, Gardinier shall deliver to the Director a check, payable to the Pollution Recovery Fund of Hillsborough County, in the amount of $4,300.00. This amount constitutes a reasonable settlement ascribed to the above alleged violations. A failure by Gardinier to comply with the reporting and implementation requirements identified in paragraphs 9. and 10. shall subject the company to an agreed upon penalty in the sum of $250.00 for each day beyond the deadline date, unless that failure of compliance was due to an event beyond Gardinier's reasonable control, which event shall include, but not be limited to, issuance of permits, delivering of supplies, labor strikes, or weather conditions; or that an alternate schedule was mutually agreed upon by the parties. A dispute between the parties regarding the payment of fines is subject to dispute resolution using the same procedures set forth in paragraph 16. herein.

12. Within fifteen (15) days of the effective date of this Consent Order, Gardinier shall deliver to the Director a check, payable to the Environmental Protection Commission of Hillsborough County, in the amount of $1,935.00. This amount constitutes a reasonable expense of the Commission for investigating and resolving this matter. In addition to the above payment, at quarterly intervals, the Commission will notify Gardinier in writing of continuing staff expenses accrued. Within ten (10) days of notification, Gardinier shall deliver a check to the Commission for expense reimbursement accrued at the rate of $30.00 per hour. The expenses of any given quarter shall not exceed $1,500.00 without the express prior written approval of Gardinier. The Commission shall keep a written record of staff time expended and this record shall be available to Gardinier upon request.

13. The Commission, for and in consideration of the complete and timely performance by Gardinier of the obligations agreed to in this Consent Order, hereby waives its right to seek judicial imposition of damages or civil penalties for alleged violations outlined in this Order. Gardinier waives its right to a hearing or judicial review of this Order except as may be necessary to determine compliance with its terms.

14. Execution of this Consent Order shall serve as notification of Gardinier's withdrawal of its Appeal in Case No. 80407KS000804, presently before the Hillsborough County Environmental Protection Commission.

15. The parties acknowledge that there is a pending suit between them in the Circuit Court of Hillsborough County styled State of Florida Department of Environmental Regulation and Environmental Protection Commission of Hillsborough County, Plaintiffs, vs. Gardinier, Incorporated, Defendant, Case No. 88-10465, Div. A. Concurrent with the execution of this agreement, the Commission shall file with the Clerk of the Court an Admission in response to Numbers 1 and 2 of the pending Request for Admission filed by Gardinier.

16. In the event the Director makes a determination pursuant to the provisions of this Consent Order, the Director shall provide written notice of his determination and a supporting statement of the facts. Gardinier may appeal his determination pursuant to the provisions of Section 9 of the Hillsborough County Environmental Protection Act, as amended.

17. Entry into this Consent Order does not relieve Gardinier of the need to comply with other applicable federal, state or local laws, regulations or ordinances, including any other agreement entered into between Gardinier and the Commission. The entry of this Consent Order does not abrogate the rights of substantially affected persons who are not parties to this Consent Order, except those which are abrogated by law.

18. The Commission hereby expressly reserves the right to initiate appropriate legal action to prevent or prohibit the future violation of applicable statutes, or the rules promulgated thereunder.

19. The terms and conditions set forth in this Consent Order may be enforced in a court of competent jurisdiction. Failure to comply with the terms of this Consent Order is a violation of Chapter 403, Florida Statutes, and Chapter 84-446, Laws of Florida.

20. Gardinier is fully aware that a violation of the terms of this Consent Order may subject Gardinier to judicial imposition of damages, civil penalties of up to $10,000.00 per violation, criminal penalties and costs and expenses incurred in litigating this matter.

21. This Consent Order shall take effect upon the date of execution by the Director of the Commission and shall constitute final agency action by the Commission.

22. This Consent Order shall terminate upon demonstrated showing by Gardinier that it has met all of the terms and conditions contained herein. If a dispute arises between the parties as to whether all terms and conditions of this Agreement have been satisfied, the dispute's resolution procedure set forth in paragraph 16. shall be available to Gardinier.

Witness:

Carter B. McGinn

Respondent

By _____

Title President

State of Florida

County of Hillsborough

Before me, the undersigned authority, personally appeared Henk M. Mathot, who, being first duly sworn, deposes and says that he/~~she~~, as President, of Respondent, Gardinier, Incorporated, and residing at 4609 Clarksdale Lane, Brandon, FL, is the authorized representative of Respondent, that he/~~she~~ is duly authorized under the Articles of Incorporation and By-laws of

Respondent to bind Respondent by his signature to this Consent Order, and that it is his/~~her~~ signature which first appears above on behalf of Respondent.

Affiant's signature

Sworn to and subscribed before me this 6th day of January, 1989.

Notary Public
My Commission Expires:
NOTARY PUBLIC, STATE OF FLORIDA.
MY COMMISSION EXPIRES: DEC. 16, 1991.
BONDED THRU NOTARY PUBLIC UNDERWRITERS.

(SEAL)

DONE AND ORDERED this 17th day of Jan, 1989, in Tampa, Florida.

Roger P. Stewart, Director
Environmental Protection Commission
of Hillsborough County
1900 9th Avenue
Tampa, Florida 33605
(813) 272-5960

IN THE CIRCUIT COURT OF THE THIRTEENTH JUDICIAL CIRCUIT
OF FLORIDA, IN AND FOR HILLSBOROUGH COUNTY
CIVIL DIVISION

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION and
ENVIRONMENTAL PROTECTION COMMISSION
of Hillsborough County,

Plaintiffs,

Case No. 88-10465
Division: A

vs

GARDINIER, INCORPORATED,

Defendant,
_____/

EPC'S SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION

The Plaintiff, ENVIRONMENTAL PROTECTION COMMISSION of Hillsborough County, by and through its undersigned attorney, supplements its response to the Request for Admissions served upon it on September 19, 1988, as follows:

1. (no change) It is admitted that Counts I through VI do not raise a claim for damages due to the discharge of pollutants to the air.

2. It is admitted that the relief sought for an environmental audit of actual or potential sources of air pollution has been resolved by separate settlement between the EPC and Gardinier, and

Executive Summary: Determination of Gaseous Ammonia from Stationary Sources

Sampling for stationary source ammonia emissions shall be conducted using a variation of the EPA Draft Method, using large impingers with 100 mls of 1.0 Normal sulfuric acid in the first three impingers. The last impinger will remain dry. The probe will have an external design similar to that used in Method 16, for the exclusion of particulate matter. The analytical method for the determination of ammonia will be conducted using EPA Method 350.2; 350.3 using an ion selective ammonia electrode and a specific ion meter.

Determination of Gaseous Ammonia from Stationary Sources

1. Principle and Applicability

1.1 Principle. A gas sample is extracted from the stack and the ammonia is collected in impingers containing sulfuric acid solution. The collected ammonia is determined by using an ion selective ammonia electrode and a specific ion meter.

1.2 This method is applicable for the determination of gaseous ammonia emissions from nitrogen fertilizer plants. The minimum detectable ammonia concentration is 30 ug/l. The upper limit is 5000 ug/l, but this may be extended by diluting the sample.

2. Apparatus

2.1 Sampling. The sampling train is shown in Figure 1 component parts are discussed below.

2.1.2 Probe. a stainless steal probe is used, approx. 6-mm inside diameter, with a heating system to prevent water condensation and an out-of-stack filter to remove particulate matter.

2.1.3 Probe Tip. The probe will have an external design similar to that used in Method 16, for the exclusion of particulate matter, as illustrated in Figure 2.

2.1.4 Impingers. Four standard impingers. Silicone grease will be used to prevent leakage. The ammonia collection efficiency will be demonstrated to be at least 99 percent for each run and documented in the report. If the efficiency is found to be acceptable after a series of three runs, further documentation will not be required. The third impinger will act to determine the efficiency, and must not contain more than one percent of the total ammonia.

2.1.5 Filter. Standard quartz filter.

2.1.6 Stopcock Grease. Acetone-insoluable, heat stable silicone grease may be used, if necessary.

2.1.7 Temperature Guage. Thermocouple will be used to determine the gas temperature leaving the impinger train to within 2° F.

2.1.8 Control Module. The flow rate and gas metering will be controlled by a Nutec Corp. Model 201 Control Module. The sample will be collected by sampling at 3/4 ACFM for 30 minutes for each of three runs.

2.2 Sample Recovery. Samples in the field will be transferred to polyethylene bottles for transport to the laboratory.

2.3 Analysis.

2.3.1 Volumetric flasks. 500 ml size.

2.3.2 Graduated cylinder. 200 ml size.

2.3.3 Orion Ion Specific Electrode, Corning Combination Meter -135, Buchi Digestion & Auto Distillation Unit Model No. 321

3. Reagents. All reagents conform to the specifications established by the Committee on Analytical Reagents of the American Chemical Society.

3.1 Sampling

3.1.1 Water. Deionized and distilled conform to ASTM specification D1193-74, Type 3.

3.1.2 Sulfuric Acid, 1.0 N.

4. Procedure

4.1 Sampling. Measure 100 ml of 1.0 N sulfuric acid into the first three impingers. The final impinger will have silica and act to protect the sampling pump. The probe heat will be adjusted to prevent water condensation. Ice will be placed around the impingers. A leak check will be will be conducted on the sampling probe before and after each run. The leakage rate will not will exceed 2 percent of the average sampling rate.

4.2 Sample Collection. Record the initial dry gas meter reading and barometric pressure. Start sampling pump. Adjust the sample flow rate to 3/4 ACFM. Maintain this constant rate (+/- 10%) during the entire sampling run. Take readings (dry gas meter,temp. at dry gas meter & at impinger outlet and rate meter) at least every 5 minutes. Add more ice during run to keep the temperature of the gases leaving the last impinger at or below 68° F. At the end of each run, turn off the pump, remove probe from stack, and record final readings. Conduct leak check as in 4.1.

4.3 Sample Recovery. Disconnect the impingers after purging.

Pour the contents of the impingers into polyethylene bottles for transport to the laboratory. Rinse the impingers and connecting glassware with deionized distilled water into separate bottles. Mark fluid levels to verify sample loss during shipment. After verifying the volume, quantitatively transfer the contents of the shipping container to the Buchi for distillation.

Quantitatively transfer the distillate to a 500 ml volumetric flask. Select aliquot for potentiometric titration using an ammonia ion specific electrode.

5. Calibration

5.1 The sampling system will be calibrated in accordance with procedures list in the EPA Quality Assurance Handbook for Air Pollution Measurement Systems: Stationary Source Specific Methods (EPA-600/4-77-027b).

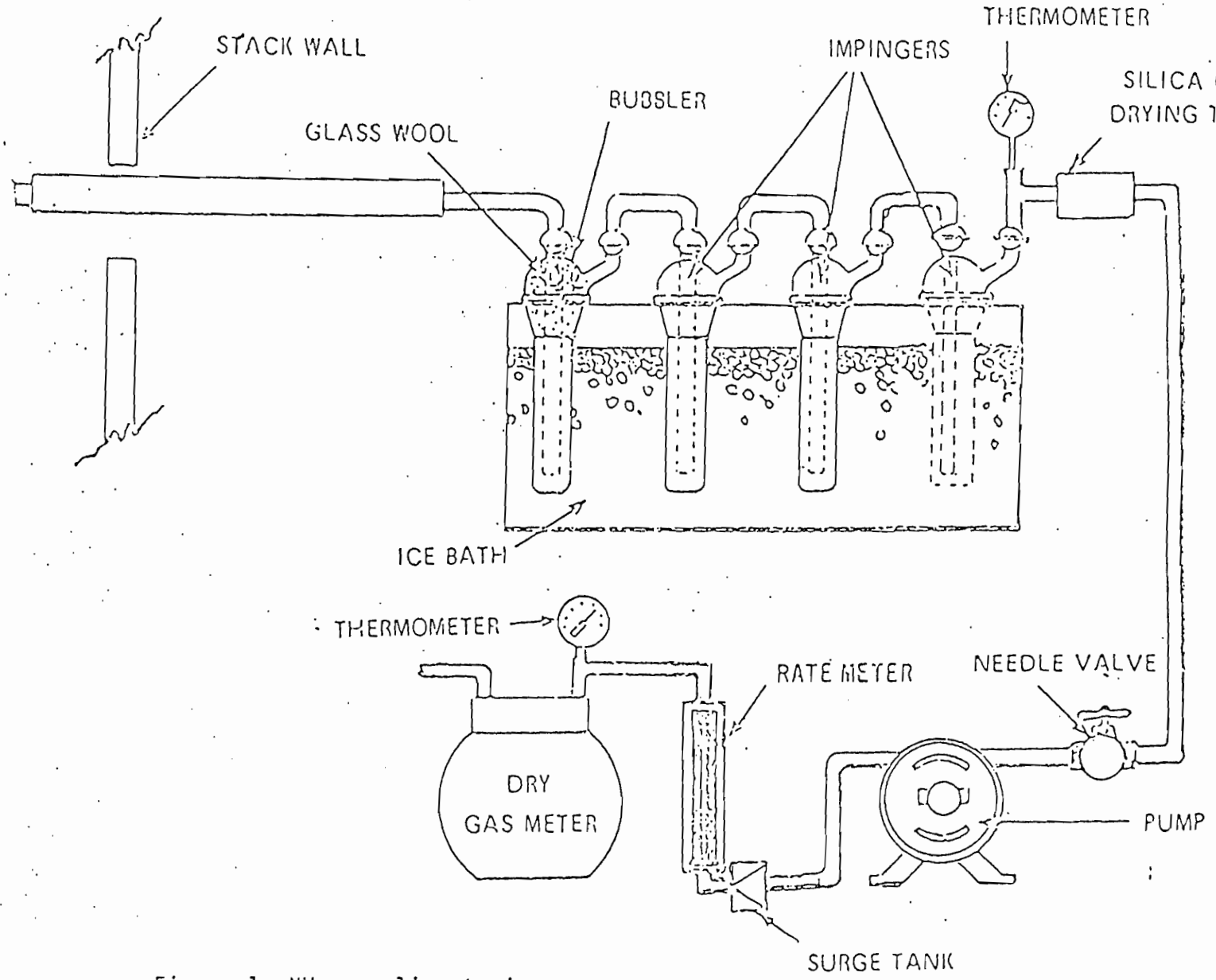
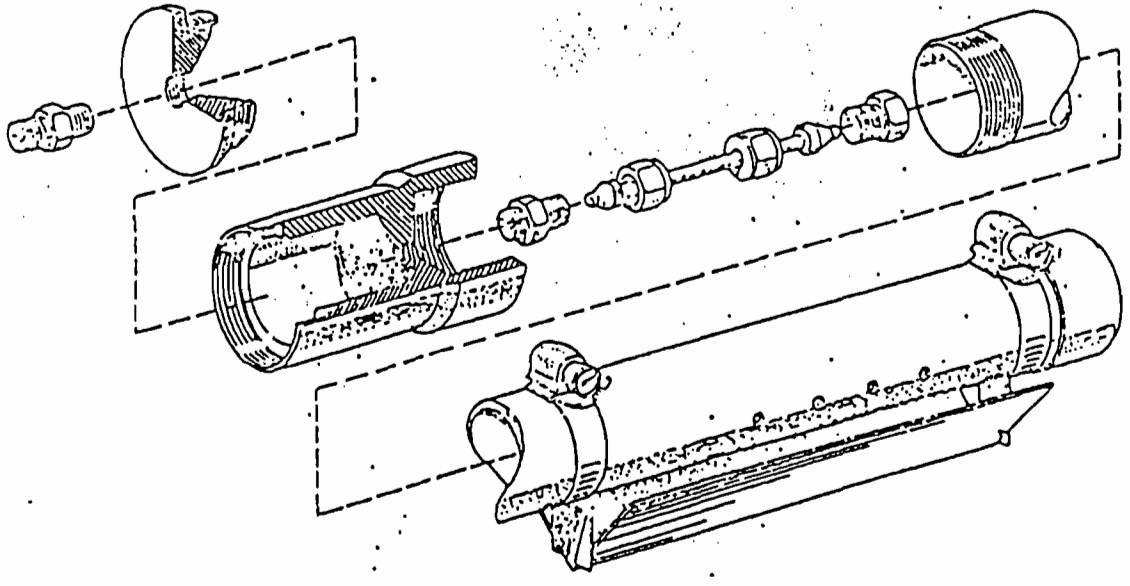


Figure 1, NH_3 sampling train.

Figure 2. Probe Tip used for Sample Gas Containing High Particulate Loading



DETERMINATION OF AMMONIA

OBTAINED FROM FOSTON CURTIS,
EPA, R.T.P.,N.C.
919/541-1063

1. Principle and Applicability

1.1 Principle. A gas sample is extracted from the stack and the ammonia is collected in impingers containing sulfuric acid solution. The collected ammonia is reacted to form a colored complex whose intensity is measured by a spectrophotometer.

1.2 This method is applicable for the determination of ammonia emissions from nitrogen fertilizer plants. The minimum detectable ammonia concentration is 30 µg/l. The upper limit is 5000 µg/l, but this may be extended by diluting the sample.

Possible interferences are calcium, magnesium, iron and sulfide.

2. Apparatus

2.1 Sampling. The sampling train is shown in Figure 1 and component parts are discussed below.

The tester has the option of determining NH_3 simultaneously with particulate matter and moisture determination by replacing the water in a Method 5 impinger system with 1.0 N sulfuric acid.

2.1.1 Probe. Borosilicate glass, or stainless steel (other materials of construction may be used, subject to the approval of the Administrator), approximately 6-mm inside diameter, with a heating system to prevent water condensation and a filter (either in-stack or heated out-stack) to remove particulate matter, including sulfuric acid mist. A plug of glass wool is a satisfactory filter.

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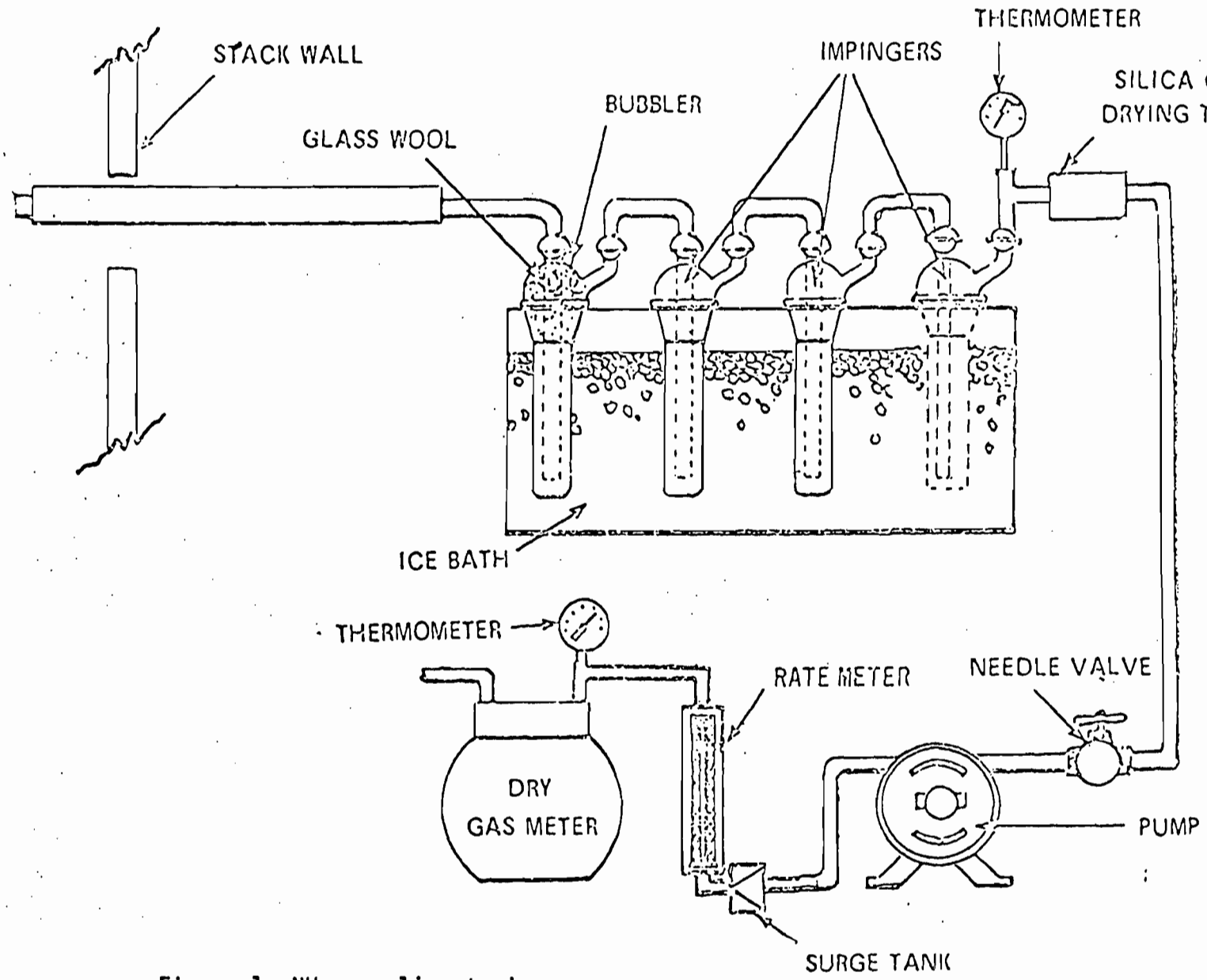


Figure 1, NH_3 sampling train.

2.1.2 Impingers. Four 30-ml midget impingers.[1] The midget impingers must be connected in series with leak-free glass connectors. Silicone grease may be used, if necessary, to prevent leakage.

Other collection absorbers and flow rates may be used, but are subject to the approval of the Administrator. Also, collection efficency must be shown to be at least 99 percent[2] for each test run and must be documented in the report. If the efficiency is found to be acceptable after a series of three tests,further documentation is not required. To conduct the efficiency test, an extra absorber must be added and analyzed separately. This extra absorber must not contain more than 1 percent of the total NH_3.

2.1.3 Glass Wool. Borosilicate or quartz.

2.1.4 Stopcock Grease. Acetone-insoluble, heat-stable silicone grease may be used, if necessary.

2.1.5 Temperature Gauge. Dial thermometer, or equivalent, to measure temperature of gas leaving impinger train to within 1°C (2°F).

2.1.6 Drying Tube. Tube packed with 6- to 16-mesh indicating-type silica gel, or equivalent, to dry the gas sample and to protect the meter and pump. If the silica gel has been used previously, dry at 175°C (350°F) for 2 hours. New silica gel may be used as received. Alternatively, other types of desiccants (equivalent or better) may be used, subject to approval of the Administrator.

2.1.7 Valve. Needle valve, to regulate sample gas flow rate.

[1] As per Foston Curtis.EPA, R.T.P., N.C., standard impingers are allowed.

[2] See efficiency calculation within Report.

2.1.8 Pump. Leak-free diaphragm pump, or equivalent, to pull gas through the train. Install a small surge tank between the pump and rate meter to eliminate the pulsation effect of the diaphragm pump on the rotameter.

2.1.9 Rate Meter. Rotameter, or equivalent, capable of measuring flow rate to within 2 percent of the selected flow rate of about 1000 cc/min.[3]

2.1.10 Volume Meter. Dry gas meter, sufficiently accurate to measure the sample volume within 2 percent, calibrated at the selected flow rate and conditions actually encountered during sampling, and equipped with a temperature gauge (dial thermometer, or equivalent) capable of measuring temperature to within 3°C (5.4°F).

2.1.11 Barometer. Mercury, aneroid, or other barometer capable of measuring atmospheric pressure to within 2.5 mm Hg (0.1 in. Hg). In many cases the barometric reading may be obtained from a nearby national weather service station, in which case the station value (which is the absolute barometric pressure) shall be requested and an adjustment for elevation differences between the weather station and sampling point shall be applied at a rate of minus 2.5 mm Hg (0.1 in. Hg) per 30 m (100 ft) elevation increase or vice versa for elevation decrease.

2.1.12 Vacuum Gauge and Votameter. At least 760 mm Hg (30 in. Hg) gauge and 0-40 cc/min rotameter to be used for leak check of the sampling train.

2.2 Sample Recovery.

[3] Sampled isokinetically for 30 minutes.

2.2.1 Wash Bottles. Polyethylene or glass, 500 ml, two.

2.2.2 Storage Bottles. Polyethylene, 100 ml, to store impinger samples (one per sample).

2.3 Analysis.

2.3.1 Pipettes. Volumetric type 0.5-ml, 1-ml, 2-ml, 5-ml, 8.0-ml, 10.0-ml, 20-ml (one per sample), and 25-ml sizes.

2.3.2 Volumetric Flasks. 100-ml size (one per sample), 1000-ml size, and 25-ml size.

2.3.3 Graduated Cylinder. 100-ml size.

2.3.4 Spectrophotometer. To measure absorbance at 405 nanometers.

2.3.5 Sample Cells. Two matched absorbance cells to fit the spectrophotometer.

3. Reagents

Unless otherwise indicated, all reagents must conform to the specifications established by the Committee on Analytical Reagents of the American Chemical Society. Where such specifications are not available, use the best available grade.

3.1 Sampling.

3.1.1 Water. Deionized, distilled to conform to ASTM specification D1193-74, Type 3. At the option of the analyst, the $KMNO_4$ test for oxidizable organic matter may be omitted when high concentrations of organic matter are not expected to be present.

3.1.2 Sulfuric Acid, 1.0 N. Dilute 28 ml of concentrated, ACS grade sulfuric acid to 1 liter with deionized, distilled water.

3.2 Sample Recovery.

3.2.1 Water. Deionized, distilled, as in 3.1.1.

3.2.2 Sulfuric Acid, 1.0 N. As in 3.1.2.

3.3 Analysis.

3.3.1 Water. Deionized, distilled, as in 3.1.1.

3.3.2 Annhydrous Mercuric Iodide (H_sI_2). ACS grade.

3.3.3 Potassium Iodide (KI). ACS grade.

3.3.4 Sodium Hydroxide (NaOH). ACS grade.

3.3.5 Stock Standard Ammonium Chloride Solution. Dissolve 3.141 g of ammonium chloride (NH_4Cl) in 1.0N H_2SO_4 in a 1-liter volumetric flask and dilute to exactly 1 liter with 1.0N H_2SO_4. One milliliter of this solution contains 1.0 mg of ammonia (NH_3).

3.3.6 Working Standard Ammonium Chloride Solution. Dilute 10 ml of the stock standard solution to 1 liter with 1.0 N H_2SO_4 in a 1-liter volumetric flask. One milliliter of this solution contains 10 µg of ammonia (NH_3).

3.3.7 Sodium Hydroxide, 10 N. Dissolve 40 grams of NaOH in a 100-ml volumetric flask and dilute exactly to 100-ml with deionized distilled water.

3.3.8 Nessler Reagent. Dissolve 160 g of NaOH in 500 ml of deionized distilled water in a 1-liter volumetric flask. Allow to cool. Dissolve 100 g of mercuric iodide and 70 g of potassium iodide in a small volume of deionized distilled water and while stirring add to the sodium hydroxide solution. Dilute to exactly 1 liter with deionized distilled water. This reagent is stable up to 1 year.

4. Procedure

4.1 Sampling.

4.1.1 Preparation of Collection Train. Measure 15 ml[4] of 1.0 N sulfuric acid into each of the first three midget impingers. Leave the final midget impinger dry. Assemble the train as shown in Figure 1. Adjust the probe heater to a temperature sufficient to prevent water condensation. Place crushed ice and water around the impingers.

4.1.2 Leak-check Procedure. A leak check prior to the sampling run is optional; however, a leak check after the sampling run is mandatory. The leak-check procedure is as follows:

Temporarily attach a suitable (e.g., 0-40 cc/min) rotameter to the outlet of the dry gas meter and place a vacuum gauge at or near the probe inlet. Plug the probe inlet, pull a vacuum of at least 250 mm Hg (10 in. Hg), and note the flow rate as indicated by the rotameter. A leakage rate not in excess of 2 percent of the average sampling rate is acceptable. Note: carefully release the probe inlet plug before turning off the pump.

It is suggested (not mandatory) that the pump be leak-checked separately, either prior to or after the sampling run. If done prior to the sampling run, the pump leak-check shall precede the leak check of the sampling train described immediately above; if done after the sampling run, the pump leak-check shall follow the train leak-check. To leak check the pump, proceed as follows: Disconnect the drying tube from the probe-impinger assembly. Place a vacuum gauge at the inlet to either the drying tube or the pump, pull a vacuum of 250 mm (10 in.) Hg, plug or pinch off the outlet of the flow meter and then turn off the pump. The vacuum should remain stable for at least 30 seconds.

[4] 100 ml was used in the first three impingers.

4.1.3 Sample Collection. Record the initial dry gas meter reading and barometric pressure. To begin sampling, position the tip of the probe at the sampling point, connect the probe to the bubbler, and start the pump. Adjust the sample flow to a constant rate of approximately 1.0 liter/min as indicated by the rotameter. Maintain this constant rate (±10 percent) during the entire sampling run. Take readings (dry gas meter, temperatures at dry gas meter and at impinger outlet and rate meter) at least every 5 minutes. Add more ice during the run to keep the temperature of the gases leaving the last impinger at 20°C (68°F) or less. At the conclusion of each run, turn off the pump, remove probe from the stack, and record the final readings. Conduct a leak check as in Section 4.1.2. (This leak check is mandatory.) If a leak is found, void the test run. Use procedures acceptable to the Administrator to adjust the sample volume for the leakage.

4.2 Sample Recovery. Disconnect the impingers after purging. Pour the contents of the midget impingers into a leak-free polyethylene bottle for shipment. Rinse the impingers and connecting glassware with deionized distilled water and add the washings to the same storage container. Mark the fluid level. Seal and identify the sample container.

4.3 Sample Analysis. Note the level of the liquid in the container and confirm whether or not any sample was lost during shipment; note this on the analytical data sheet. If a noticeable amount of leakage has occurred either void the sample or use methods, subject to the approval of the Administrator, to correct the final results.

Quantitatively transfer the contents of the shipping container to a 1-liter volumetric flask. Rinse the container and cap with several portions of 1.0N sulfuric acid and transfer to the flask. Dilute to exactly 1 liter with 1.0N sulfuric acid. Pipet 10 ml of the sample from the 1-liter flask into a 500 ml-volumetric flask and dilute to exactly 500 ml with 1.0 N H_2SO_4. Pipet 20 ml of this solution into a 25-ml volumetric flask. Add 10 N sodium hydroxide dropwise to the flask until the pH is between eight and ten. Then add 0.5 ml of Nessler reagent and dilute to exactly 25 ml with deionized distilled water. Mix well and allow to stand for the same amount of time as the standards used for calibration. Measure the absorbance at 405 nm using the blank solution as a zero reference. Dilute the sample and the blank with equal amounts of deionized distilled water if the absorbance exceeds that of the 100 µg NH_3 solution.

5. Calibration

5.1 Metering System.

5.1.1 Initial Calibration. Before its initial use in the field, first leak check the metering system (drying tube, needle valve, pump, rotameter, and dry gas meter) as follows: place a vacuum gauge at the inlet to the drying tube and pull a vacuum of 250 mm (10 in.) Hg; plug or pinch off the outlet of the flow meter, and then turn off the pump. The vacuum shall remain stable for at least 30 seconds. CArefully release the vacuum gauge before releasing the flow meter end.

Next, calibrate the metering system (at the sampling flow rate specified by the method) as follows: connect an appropriately sized

wet test meter (e.g., 1 liter per revolution) to the inlet of the drying tube. Make three independent calibration runs, using at least five revolutions of the dry gas meter per run. Calculate the calibration factor, Y (wet test meter calibration volume divided by the dry gas meter volume, both volumes adjusted to the same reference temperature and pressure), for each run, and average the results. If any Y value deviates by more than 2 percent from the average, the metering system is unacceptable for use. Otherwise, use the average as the calibration factor for subsequent test runs.

5.1.2 Post-Test Calibration Check. After each field test series, conduct a calibration check as in Section 5.1.1 above, except for the following variations: (a) the leak check is not to be conducted, (b) three, or more revolutions of the dry gas meter may be used, and (c) only two independent runs need be made. If the calibration factor does not deviate by more than 5 percent from the initial calibration factor (determined in Section 5.1.1), then the dry gas meter volumes obtained during the test series are acceptable. If the calibration factor deviates by more than 5 percent, recalibrate the metering system as in Section 5.1.1, and for the calculations, use the calibration factor (initial or recalibration) that yields the lower gas volume for each test run.

5.2 Thermometers. Calibrate against mercury-in-glass thermometers.

5.3 Rotameter. The rotameter need not be calibrated, but should be cleaned and maintained according to the manufacturer's instruction.

5.4 Barometer. Calibrate against a mercury barometer.

5.5 Determination of Spectrophotometer Calibration Factor K.

Add 0.0, 1.0, 2.0, 5.0, 8.0, and 10.0 ml of working standard ammonium chloride solution to a series of six 25-ml volumetric flasks. Adjust the total volume of solution in each to 20 ml using 1.0 N H_2SO_4. Adding 10 N NaOH dropwise, adjust the pH to between 8 and 10. Pipette exactly 0.5 ml of Nersler reagent into each flask and filute to exactly 25 ml with deionized distilled water. Mix well and allow each to stand for 10 to 30 minutes for color development. Note the time allowed for color development of the standards and use the same time for the samples. Measure the absorbance of each standard at 405 nm. The calibration procedure must be repeated each day that samples are analyzed. Calculate the spectrophotometer calibration factor as follows:

$$K_c = 100 \frac{A_1 + 2A_2 + 5A_3 + 8A_4 + 10A_5}{A_1^2 + A_2^2 + A_3^2 + A_4^2 + A_5^2}$$

Where:

K_c = Calbiration factor.

A_1 = Absorbance of the 10 µg standard.

A_2 = Absorbance of the 20 µg standard.

A_3 = Absorbance of the 50 µg standard.

A_4 = Absorbance of the 80 µg standard.

A_5 = Absorbance of the 100 µg standard.

6. Calculation

Carry out calculations, retaining at least one extra decimal figure beyond that of the acquired data. Round off figures after final calculation.

6.1 Nomenclature.

A = Absorbance of sample.

C_{NH_3} = Concentration of ammonia dry basis corrected to standard condition, mg/dscm (lb/dscf).

F = Dilution factor (i.e., 25/5, 25/10, etc. required only if sample dilution was needed to reduce the absorbance into the range of calibration).

K_c = Spectrophotometer calibration factor.

m = Mass of ammonia in gas sample, µg.

P_{bar} = Barometric pressure at the exit orifice of the dry gas meter, mm Hg (in. Hg).

P_{std} = Standard absolute pressure, 760 mm Hg (29.92 in. Hg).

T_m = Average dry gas meter absolute temperature, °K (°R).

T_{std} = Standard absolute temperature, 293°K (528°R).

V_a = Volume of sample aliquot analyzed, ml.

V_m = Dry gas volume as measured by the dry gas meter, dcm (dcf).

$V_{m(std)}$ = Dry gas volume measured by the dry gas meter, corrected to standard conditions, dscm (dscf).

V_{soln} = Total volume of solution in which the ammonia sample is contained, 1000 ml.

Y = Dry gas meter calibration factor.

6.2 Dry sample gas volume, corrected to standard conditions:

$$V_{m(std)} = V_m Y \frac{T_{std}}{T_n} \frac{P_{bar}}{P_{std}} = K_1 Y \frac{V_m P_{bar}}{T_m}$$

Equation 2

Where:

K_1 = 0.3858 °K/mm Hg for metric units.

= 17.64 °R/in. Hg for English units.

6.3 Total µg NH_3 per sample.

$$m = 2 K_c AF \frac{V_a}{V_{soln}}$$ Equation 3

6.4 Sample concentration, dry basis, corrected to standard condition:

$$C = K_2 \frac{m}{V_{sc}}$$

Where:

$K_2 = 10^3 \frac{mg/m^3}{\mu g/ml}$ for metric units.

$= 6.243 \times 10^{-5} \frac{lb/scf}{\mu g/ml}$ for English units.

7. Bibliography

1. Patton, W. F. and J. A. Brink, Jr. New equipment and Techniques for Sampling Chemical Process Gases. Air Pollution Control Association. 13:162, 1963.

2. Rom, J. J. Maintenance, Calibration, and Operation of Isokinetic Source Sampling Equipment. Office of Air Programs, Environmental Protection Agency. Research Triangle Park, N. C. APTD-0576, March, 1972.

3. Standard Methods for the Examination of Water and Wastewater, 13th Edition. American Public Health Association, Washington, D.C., 1974. pp. 226-232.

CARGILL
FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

May 1, 1991 AIRBORNE OVERNIGHT DELIVERY

Mr. Clair Fancy, P.E.
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Modifications to #3 MAP, #4 MAP and MAP Cooler
Permits AO29-152717, AO29-152718 and AO29-152266

Dear Mr. Fancy:

This is in response to your letter dated April 23, 1991 regarding the above-referenced applications received by your office on March 19, 1991. Each item of your letter is addressed in order below.

1. Copies of the current operating permits for these three sources are enclosed.

2. The permits for the subject sources do not directly limit P2O5 feed rates to the sources. However, emission limits are based on maximum production rates for #3 MAP and #4 MAP of 19 TPH and 21 TPH, respectively. Note, however, that the Operation and Maintenance Plans which are part of the permits indicate production rates of 18-22 TPH for each source. Based on the nominal maximum production rates of 19 and 21 TPH and assuming a P2O5 efficiency of 97%, P2O5 input rates for #3 and #4 MAP are calculated to be 9.81 and 10.85 TPH, respectively. Similarly, the MAP Cooler emission limits are based on a production rate of 38.5 TPH.

3. The actual measured ammonia emissions using the attached stationary source sampling procedure for the No. 3 MAP, No. 4 MAP, and the No. 5 DAP units are 1.5, 5.89, and 0.45 lbs/hr. respectively.

The allowable emission rate was established by negotiation between the Hillsborough County Environmental Commission (EPC) and Cargill Fertilizer, Inc. (named at that time Gardinier, Inc.) to address potential nuisance odors. The consulting company of Dames & Moore provided modeling of the allowable ammonia emissions and provided assurance of no ammonia nuisance odors. At the request of the EPC, Cargill Fertilizer, Inc. modified the operational permits to include ammonia emission point source limits based on the attached sampling procedure. Cargill has not received any ammonia nuisance odor complaints since the emission limit was set. To my knowledge, the DER has not set any ammonia emission limits on any other fertilizer production plant in the state.

As indicated by the enclosed modeling analysis provided by KBN Engineering and Applied Sciences, Inc., your suggested AAC ammonia levels are exceeded by the allowable emissions. However, the actual ammonia emissions do not exceed your suggested ACC level. The allowable emissions do not exceed the odor threshold.

We assume, based on our knowledge of the literature, the DER suggested AAC level was based on application of safety factors to occupational standards. However, this process generally is inappropriate for ammonia for several reasons. First, ammonia metabolizes in the body and excess amounts within reason can be handled biologically; thus, exceeding a specified limit is much less of concern for ammonia than for other pollutants. Next, peak rather than cumulative exposure are of concern for ammonia; thus, use of safety factors to adjust for inhaled quantities is inappropriate. Finally, there is little evidence that any population groups are particularly sensitive to the irritation affects of ammonia.

Ammonia is a widely used industrial chemical that can be toxic to humans if they are exposed to sufficient concentrations for sufficient times. However, ammonia is relatively unique in that it is produced in humans (human blood contain 1 ppm ammonia) and other mammals and metabolizes readily. As such, humans can tolerate relatively high concentrations of ammonia with little or no possibility of lasting affects. The most recent health assessment concludes that adverse effects are unlikely to result below about 50 ppm (34,765 micrograms/cubic meter); however, odor and irritation thresholds for ammonia can be somewhat lower. Attached for your review, is an evaluation of the "Health Effects For Ammonia".

Cargill Fertilizer, Inc and the EPC have addressed any problems associated with ammonia affectively. We have provided the necessary technology and operation and maintenance measures that prevent malfunctions and emergency releases which are typically the cause of high short-term community concentrations.

4. The requested increases in MAP production will not increase phosphoric acid production. Rather, the produced phosphoric acid will be used to produce the MAP produced rather than PFS or one of the other dry products (GTSP & DAP). As a consequence, the only secondary effects of the increased MAP production will be a slight increase in material handling. Currently, total dry products production (MAP, DAP and GTSP) is permitted at approximately 235 TPH. Assuming all of the increased MAP production offsets PFS production, the requested increase will raise this total to 245 TPH (a 4.3% increase). Total particulate emissions from the downstream material handling systems were reported at a total of 20.93 tons for 1990. Assuming that emissions increase proportional to material handling, the MAP production increase would result in an additional 0.9 tons per year. Inclusion of this into the PM/PM10 emissions estimated in the application will result in a net increase from the project of 13.59 TPY. This is below the significant emission rate of 15 TPY for the particulate matter and is not subject to new source review. Further, based on our product quality with its added de-dusting agents and our complete emission control system, we expect any increases to be less than that indicated.

5. Cargill Fertilizer, Inc. never received a permit in response to the March 1990 application. The current application is a continuation of that permitting process and contemplates the same production increase.

<u>Amendment to Application (AO29-152717) - Phase II</u>

In addition to the above, due to further evaluations, we would like to make some additional improvements to the cooler system pollution control equipment (AO29-152717). The improvements to the system proposed in the subject application will allow the unit to operate at the increased rates desired. However, further evaluation of the system has revealed that significant efficiency improvements can be realized by use of a different control equipment configuration. The current system, including the modifications proposed in the application, consists of an

evacuation duct containing spray nozzles leading to two wet cyclone control devices. While this system is effective in achieving the necessary emission control efficiency, it results in the loss of any particulate product captured by the system. This loss occurs due to the capture of the particulate matter by the water in the cyclones. This water is drained to the facility process water system. We have determined that by replacing this control system with two dry cyclones followed by a wet venturi scrubber, a significant portion of the particulate matter (which represents lost product) can be recovered and returned to the production process.

Due to the longer lead times required for replacement of the pollution control system, we propose that the construction permit be issued to include two phases. Phase I, to be completed by December 31, 1991, will be for the upgrade of the existing system which allows for the production increase as described in the application. Phase II, to be completed by December 31, 1992, will be for the replacement of the existing control system (including the stack) with a new system as described above and presented on the attached drawing. These Phase II activities will allow for improved efficiencies and waste minimization without increasing emissions permitted under Phase I. The attached Figure 1 shows the existing and the Phase I cooler and emission control systems as provided in the construction permit application. Figure 2 & 3 (attached) show the completed Phase II system.

Should you have any questions, or require additional information, please feel free to contact me.

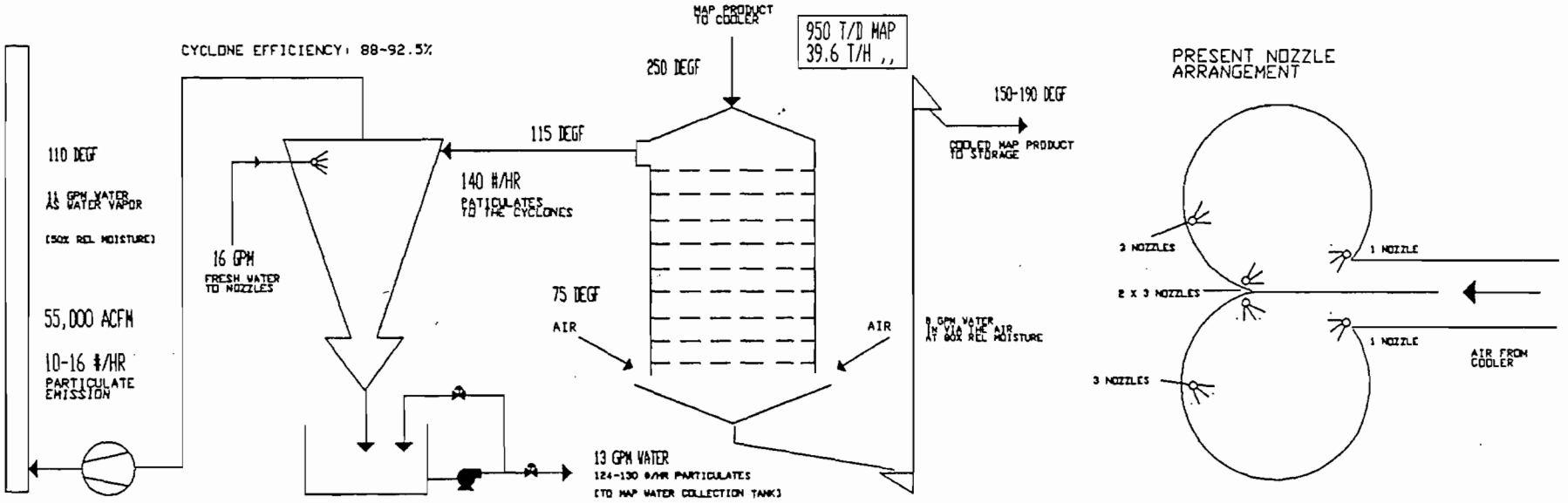
Sincerely,

E. O. Morris
Environmental Manager

cc: Bill Thomas/FDER/Tampa
David Buff/KBN
Jerry Campbell/HCEPC
E. O. Morris
P-8, 9, 10

MAP COOLER STACK PARTICULATE EMISSION AT MAX PRESENT PERMITTED PRODUCTION RATE

PARTICULATE EMISSION: 10-16 #/HR



MAP COOLER STACK PARTICULATE EMISSION AT REQUESTED HIGHER PRODUCTION RATE

PARTICULATE EMISSION: 7-10 #/HR

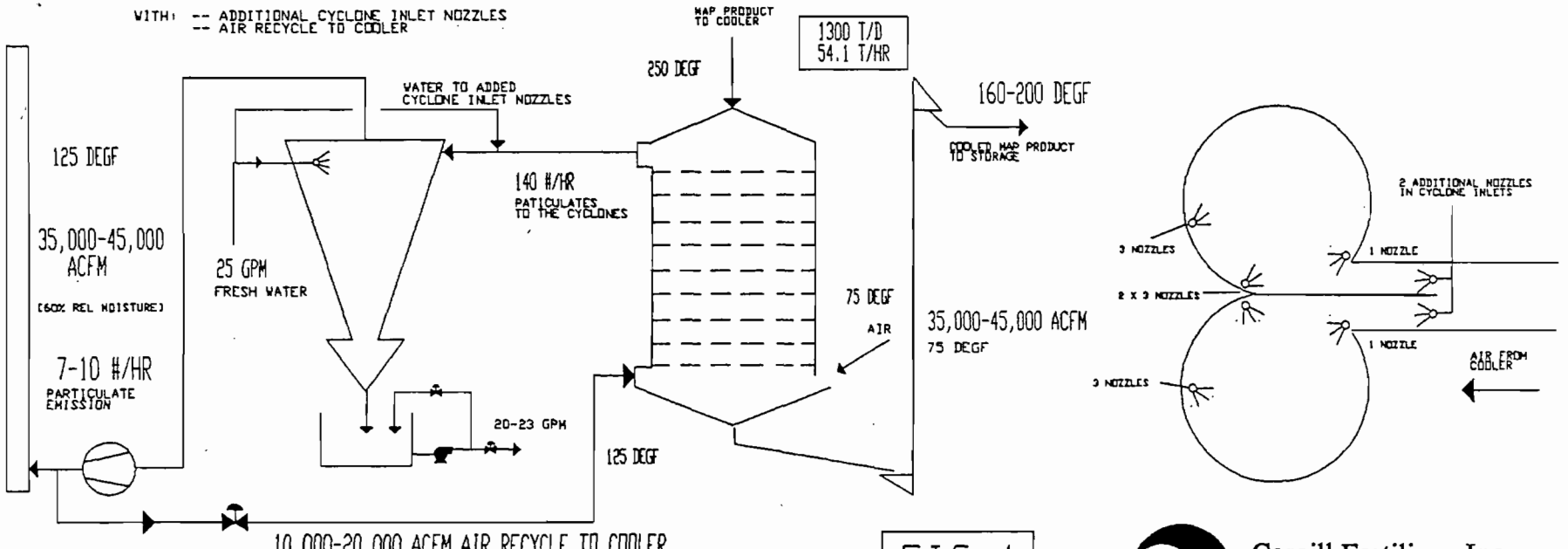


FIG 1

Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview FL 33569

EXISTING COOLER WITH NEW DRY CYCLONE SYSTEM AND VENTURI SCRUBBER

FIG 2

NOW:	40 TPH MAX	250 DEGF
NEW PERMIT REQUEST: (MARCH , 91)	54 TPH MAX	250 DEGF

H = NEW STACK 125 FT

50,600 ACFM
95-105 DEGF

130 - 140 DEGF

TO STORAGE

MAP PRODUCT

150-170 DEGF

1500 GPM POND WATER
90 DEGF

MAP 3
PRODUCT

MAP 4
PRODUCT

A

B

C

D

E

F

G

H

DUST RECOVERY
RETURN TO PRODUCT RECYCLE

200 #/HR

POND WATER RETURN

A = EXISTING COOLER UPGRADED, IMPROVED

B = NEW DUCTING TO NEW TWIN CYCLONES

C = NEW DRY TWIN CYCLONES RECOVERY OF DUST IN PRODUCT

D = NEW VENTURI SCRUBBER

E = NEW SCRUBBER CYCLONE VESSEL WITH DEMISTER (F)

G = NEW BLOWER

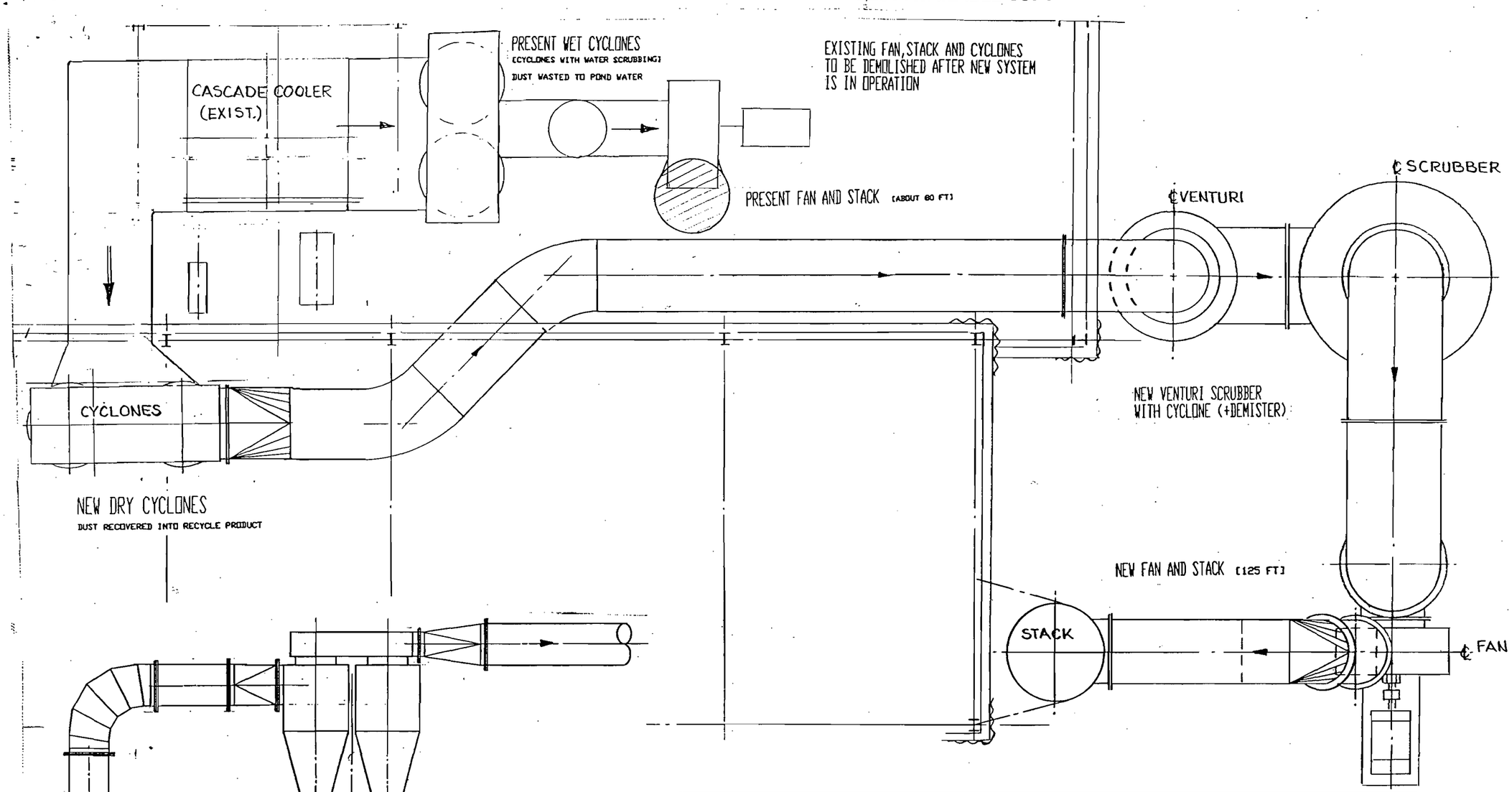


FIG 3

PROPOSED M.A.P. CYCLONE/SCRUBBER INSTALLATION

CARGILL

TAMPA FLORIDA

Badger
A Raytheon Company

This drawing is not to be used for construction or for ordering material unless dated and signed.

Certified _____

Date _____

Scale : 3/16"=1'-0

Appro

Design	Eng'r	

April 29, 1991

Mr. Ozzie Morris
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, FL 33569

Dear Ozzie:

Per your request, KBN Engineering and Applied Sciences, Inc. (KBN) is pleased to submit these results of the ammonia air dispersion analyses for the Cargill phosphate fertilizer plant located in Riverview, Florida. The ammonia impacts were predicted for the existing No. 5 DAP unit and the existing Nos. 3 and 4 MAP units on an 8-hour and 24-hour averaging period basis. The attached text describes the general methodology used in the modeling, including descriptions of the emission data and receptors and building downwash considerations.

If you have any questions concerning these analyses, please call Dave Buff or me at your earliest convenience.

Thank you,

Gail C. Rampersaud

Gail C. Rampersaud
Associate Engineer

Attachments

KBN ENGINEERING AND APPLIED SCIENCES, INC.
1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

Source Description

The source operating parameters for the ammonia sources at the Cargill facility are presented in Table 1. The No. 5 DAP stack is located in the production area at the east end of the No. 5 storage building. The Nos. 3 and 4 MAP units are located in the production area at the east end of the Nos. 3 and 4 storage building. Since the stack and operating parameters are identical for these two units, they were modeled together and collocated at a position halfway between each stack location. Two scenarios were modeled to predict ammonia impacts. The first scenario involved modeling all sources at their permitted emission rate. The second scenario involved modeling all sources at their actual emission rate as determined from the facility's 1990 annual report. Model results are presented for both of these scenarios.

General Methodology

The Industrial Source Complex short-term (ISCST) dispersion model (EPA,1990a) was used to predict the 8-hour and 24-hour ammonia impacts. Concentrations were predicted using a 5-year period of meteorological data from 1982 through 1986. This data consisted of hourly surface weather observations collected from the National Weather Service (NWS) station at the Tampa International Airport, which is located approximately 20 kilometers northwest of the Cargill facility, and mixing heights developed from twice-daily upper-air data collected at the NWS station at Ruskin.

Receptors

A general receptor grid was used consisting of receptors located along 36 radials spaced at 10-degree increments outward from the facility, with the origin of the grid residing at the No. 5 DAP stack location. Receptors were spaced at 1000, 1200, 1500 and 2000 meters downwind from the origin along each radial. Discrete receptors were also placed along the plant property boundaries on the west side of U.S. Highway 41 and are summarized in Table 2. Since maximum predicted impacts are expected to occur close to the plant (due to downwash), property owned and fenced on the east side of U.S. Highway 41 and south of the plant (across the Alafia River) were not marked with discrete receptors. Since the general grid starts at 1000 meters downwind, it was necessary to use additional discrete receptors beyond plant property to account for the area not covered by the general grid. This was done for radials where the plant property was closer (within 600 meters) to the grid origin. These extra receptors were spaced at 600 and/or 800 meters downwind of the grid origin.

Maximum screening grid concentrations for both scenarios were refined using a refined receptor grid. Since all predicted maximum concentrations occurred at the plant property boundary, the refined grid consisted of radials spaced every 2 degrees on each side of the screening radial which resulted in the maximum predicted impact, extending to the next nearest screening radial. Receptors were placed along the actual plant property boundary on these radials.

Building Downwash

For this analysis, all sources were modeled with building data to assess the potential for building downwash to occur. The specific building data used for each source is summarized in Table 3. This building data was compiled with the use of the Breezewake program, developed by Trinity Consultants, Inc. All storage and production buildings in the ammonium phosphate production area were considered in the determination of potential building downwash effects for each source. The breezewake program analyzes all building and source locations and determines the building or buildings of influence (height and projected width) in each 10-degree radial section. All modeled stacks met the Schulman-Scire criteria for downwash determination and therefore, direction specific building data were used by the model.

Model Results

The maximum (highest) predicted ammonia screening impacts for 5 years of meteorological data and at the permitted emission rates are summarized in Table 4, and screening impacts using the actual emission rates are summarized in Table 5. The results of the refined analysis for both permitted and actual emissions are presented in Table 6. Based on these refined values, the maximum 8-hour and 24-hour ammonia concentrations at the permitted emission rate are 1,231 ug/m^3 and 848 ug/m^3, respectively. These predicted impacts exceed the no threat level (NTL) established in the Florida Air Toxics Working List (Draft Version 1.0, January, 1991) of 180 ug/m^3 for the 8-hour, and 43.2 ug/m^3 for the 24-hour averaging periods. The maximum predicted impacts for the 8-hour and 24-hour averaging periods using actual emission rates are 45.4 ug/m^3 and 31.2 ug/m^3, respectively. These predicted impacts are 25 percent of the 8-hour, and 72 percent of the 24-hour NTL's for ammonia.

Table 1. Operating and Emission Data for the Units Used in the Ammonia Modeling

Parameter	Units	
	MAP 3,4*	DAP #5
Stack Data		
Location (X,Y), ft (m)	0,87.9 (0,26.8)	0,0 (0,0)
Height, ft (m)	90 (27.43)	132.5 (40.39)
Diameter, ft (m)	3.33 (1.01)	7.0 (2.13)
Operating Data		
Flow Rate, ACFM	35,000	120,000
Temperature, F (K)	140 (333)	120 (322)
Velocity, ft/sec (m/sec)	66.98 (20.42)	51.97 (15.84)
Emission Data		
Ammonia		
Permitted, lb/hr (g/s)	200.0 (25.2)**	20.0 (2.52)
Actual, lb/hr (g/s)	7.39 (0.93)***	0.45 (0.057)

* MAP units 3 and 4 have been combined and collocated for modeling purposes.
** MAP units 3 and 4 individual permitted emissions are 100 lb/hr (12.6 g/s) each.
*** MAP units 3 and 4 actual emissions are 1.5 lb/hr (0.19 g/s) and 5.89 lb/hr (0.74 g/s), respectively.

Table 2. List of Discrete Receptors Used to Identify Plant Property Boundaries

Direction (degrees)	Distance (meters)			Direction (degrees)	Distance (meters)		
10	1589			190	643	800	
20	1369			200	697	800	
30	1236			210	786		
40	1148			220	934		
50	1077			230	1023		
60	1044			240	486	975	
70	1040			250	483	806	
80	1045			260	485	698	
90	988			270	500	600	800
100	605	800		280	533	600	800
110	446	600	800	290	590	800	
120	415	600	800	300	684	800	
130	421	600	800	310	844		
140	442	600	800	320	1019		
150	481	600	800	330	1289		
160	545	600	800	340	1829		
170	606	800		350	1836		
180	614	800		360	1829		

Note: Grid centered at Unit DAP #5 stack.
Distances represent closest distance to plant property within a 10-degree radial sector.

Table 3. Building Dimensions Associated with Cargill Ammonia Sources

Source	Area of Influence (degrees)	Associated Buildings	Building Height (feet)	Building Length (feet)	Building Width (feet)	Most Dominant Building (Model Input)	
						Height (feet)	Length & Width* (feet)
MAP 3,4	10, 40-150, 220-330, 350-360	#5 MAP Production, high section	127	36	30	127	137
		#3,4 MAP Production building	100	100	80		
	20-30, 160-210, 340	GTSP Production building	127	100	120		
DAP #5	10-150,210-360	#5 MAP Production, high section	127	36	30	127	137
		#3,4 MAP Production building	100	100	80		
	160-200	GTSP Production building	127	100	120		

* Calculated to result in model simulation of projected crosswind width.

Table 4. Predicted Ammonia Screening Impacts for All and Individual Sources Using Permitted Emissions

Averaging Period/ Year	All Sources			MAP 3,4			DAP 5		
		Receptor Location			Receptor Location			Receptor Location	
	Concentration (ug/m3)	Direction (degrees)	Distance (meters)	Concentration (ug/m3)	Direction (degrees)	Distance (meters)	Concentration (ug/m3)	Direction (degrees)	Distance (meters)
8-Hour *									
1982	885	260	485	882	260	485	23.0	240	486
1983	906	270	500	900	270	500	34.5	190	643
1984	969	250	483	951	250	483	25.6	160	545
1985	863	280	533	857	280	533	47.1	180	614
1986	1116	260	485	1111	260	485	30.8	190	643
24-Hour *									
1982	452	250	483	446	250	483	15.4	120	415
1983	503	270	500	497	270	500	14.8	190	643
1984	656	250	483	646	250	483	14.4	190	643
1985	515	250	483	509	250	483	16.7	180	614
1986	475	250	483	465	250	483	14.3	240	486

* Values reported are highest concentrations.

Table 5. Predicted Ammonia Screening Impacts for All and Individual Sources Using Actual Emissions

Averaging Period/ Year	All Sources			MAP 3,4			DAP 5		
		Receptor Location			Receptor Location			Receptor Location	
	Concentration (ug/m3)	Direction (degrees)	Distance (meters)	Concentration (ug/m3)	Direction (degrees)	Distance (meters)	Concentration (ug/m3)	Direction (degrees)	Distance (meters)
8-Hour *									
1982	32.6	260	485	32.5	260	485	0.5	240	486
1983	33.4	270	500	33.2	270	500	0.8	190	643
1984	35.5	250	483	35.1	250	483	0.6	160	545
1985	31.8	280	533	31.6	280	533	1.1	180	614
1986	41.1	260	485	41.0	260	485	0.7	190	643
24-Hour *									
1982	16.6	250	483	16.5	250	483	0.3	120	415
1983	18.5	270	500	18.3	270	500	0.3	190	643
1984	24.1	250	483	23.8	250	483	0.3	190	643
1985	18.9	250	483	18.8	250	483	0.4	180	614
1986	17.4	250	483	17.2	250	483	0.3	240	486

* Values reported are highest concentrations.

Table 6. Predicted Ammonia Refined Impacts for All Sources Using Permitted and Actual Emissions

Scenario/ Averaging Period	Concentration (ug/m3)*	Receptor Location				
		Direction (degrees)	Distance (meters)	Day	Hour Ending	Year
Permitted Emissions						
8-Hour	1,231	252	408	263	8	1986
24-Hour	848	252	408	351	24	1984
Actual Emissions						
8-Hour	45.4	252	408	263	8	1986
24-Hour	31.2	252	408	351	24	1984

* Florida no threat level for ammonia is 180 ug/m3 for 8-hour, and 43.2 ug/m3 for 24-hour.

P 407 852 667

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. Ozzie Morris, Cargill Fertilizer	
Street and No. 8813 Highway 31 South	
P.O., State and ZIP Code Riverview, FL 33569	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 4-23-91 Permit: AC 29-194504, -507 -508	

PS Form 3800, June 1985 ☆U.S.G.P.O. 1989-234-555

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)*
2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
Mr. Ozzie Morris
Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 31 South
Riverview, FL 33569

4. Article Number
P 407 852 667

Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X [signature]

6. Signature — Agent
X

7. Date of Delivery
4-25-91

8. Addressee's Address *(ONLY if requested and fee paid)*

PS Form **3811**, Apr. 1989 ★U.S.G.P.O. 1989-238-815 **DOMESTIC RETURN RECEIPT**

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

April 23, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ozzie Morris, Environmental Manager
Cargill Fertilizer, Inc.
8813 Highway 31 South
Riverview, Florida 33569

Dear Mr. Morris:

Re: Applications to Modify the Ammonium Phosphate Plants

The Department has made a preliminary review of your applications for permits to modify your ammonium phosphate plants. Before these applications can be processed, we need the following information:

1. Please furnish copies of the current permits to operate these plants.

2. What is the allowable P_2O_5 feed (lbs/hr and TPY) to each source?

3. What is the actual ammonia emission from each source? How was the emission rate determined? At the allowable emission rate being requested, will the ambient air impact for ammonia exceed the Acceptable Ambient Concentrations (180 ug/m^3, 8 hr. and 43 ug/m^3, 24 hr.) or odor threshold (3,744 ug/m^3)?

4. Will the production of other sources at this facility, specifically the phosphoric and sulfuric acid plants, increase as a result of this project? If so, what will be the increase in actual production and emissions of regulated air pollutants from these sources?

5. Our files show Gardinier submitted similar applications for some of the changes being requested in the current applications around March 19, 1990. What actual changes in equipment and operation of these plants occurred in 1990 and what specific changes are you requesting now?

We will resume processing the applications after the requested information is received. If you have any questions on this matter, please write to me or call Willard Hanks at 904-488-1344.

Sincerely,

Barry D. Andrews

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

CHF/WH/plm

c: Bill Thomas, SWD
David Buff, P.E.
Jerry Campbell
W. Hanks

INSPECTION REPORT FORM
AIR POLLUTANT EMISSION SOURCES

FACILITY CARGILL FERTILIZER		TIME IN 2:00PM PAGE 1 OF 1 TIME OUT 3:15PM
ADDRESS 8813 Hwy 41 South		CONTACT PERSON DAVID JELLERSON PHONE (813) 677-9111
APIS #	PERMIT # MAP#3 A029-152717 #4 A029-152718	EXPIRATION DATE

RECEIVED
APR 19 1991
DER - BAQM

SOURCE DESCRIPTION
MAP #3 & MAP #4 COOLER (CONSTRUCTION APPLICATION)

INSPECTION DATE	AUDIT TYPE	COMPLIANCE STATUS
04.15.91	ANNOUNCED	0

INSPECTION COMMENTS/RECOMMENDATIONS

DARREL GRAZIANI AND ME VISITED THE FACILITY. MR. DAVID JELLERSON & THEIR MAP PLANT SUPERVISOR DON SHOWED US THE MAP #3 & 4 RELATED COOLING SYSTEM AND WE WENT OVER THE SIMPLIED FLOW DIAGRAM ATTACHED WITH THE APPLICATION.

NO CONSTRUCTION ACTIVITY HAS STARTED. The cooling system is functioning (though the cooler was not in operation at the time of our visit).

WE SAW THE DAILY PRODUCTION SHEET AND VERIFIED THAT THE COMBINED PRODUCTION RATE OF MAP #3 & #4 WAS 37 TPH (OF THE SAMPLE SHEET PICKED AT RANDOM) WELL WITHIN THE ALLOWABLE LIMITS OF 27.1+27.1 = 54.2TPH) & LOG FACTOR FOR TIME, SHOWED THAT ANNUALLY THE PLANTS CAN MEET THE MAX. HOURS OF OPERATION - 8500Hr/Yr.

I ASKED FOR THE BACK-UP/DETAILS OF ESTIMATED PM EMISSION RATE OF 5 lbs/Hr AT THE PROPOSED PRODUCTION RATE; MR. JELLERSON SAID, "IT IS BASED ON ENGINEER'S (PE's) EXPERIENCE AND HITORICAL DATA." HOWEVER WE HAVE NOT RECIEVED ANY SUPPORTING DATA TO THIS EFFECT.

INSPECTOR(S) NAME(S) BENKALRR

SIGNATURE(S)	DATE
Benkalra	04.16.91

PERM FORM NO. 85-1
CC: HILLARD HANKS, EDER

04-01-91
10:00:29

*** SCREEN-1.1 MODEL RUN ***
*** DRAFT VERSION XXXXX ***

cargill ammonium phosphate modification

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	1.000
STACK HEIGHT (M)	=	27.40
STK INSIDE DIAM (M)	=	1.00
STK EXIT VELOCITY (M/S)	=	20.40
STK GAS EXIT TEMP (K)	=	333.00
AMBIENT AIR TEMP (K)	=	293.00
RECEPTOR HEIGHT (M)	=	.00
IOPT (1=URB,2=RUR)	=	2
BUILDING HEIGHT (M)	=	.00
MIN HORIZ BLDG DIM (M)	=	.00
MAX HORIZ BLDG DIM (M)	=	.00

BUOY. FLUX = 6.01 M**4/S**3; MOM. FLUX = 91.54 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	0	.0	.0	.0	.0	.0	.0	
100.	.4803	1	3.0	3.2	960.0	52.9	27.4	15.0	NO
200.	13.95	1	3.0	3.2	960.0	52.9	50.5	30.2	NO
300.	16.88	1	2.0	2.1	640.0	65.7	72.6	48.7	NO
400.	15.76	1	1.0	1.1	320.0	104.0	95.3	74.5	NO
500.	15.42	2	2.0	2.1	640.0	65.7	83.5	52.3	NO
600.	15.43	3	3.0	3.3	960.0	52.2	65.1	39.0	NO
700.	15.32	3	2.0	2.2	640.0	64.6	75.2	45.4	NO
800.	14.92	3	2.0	2.2	640.0	64.6	84.8	51.0	NO
900.	14.06	3	2.0	2.2	640.0	64.6	94.3	56.5	NO
1000.	13.02	3	2.0	2.2	640.0	64.6	103.7	62.1	NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:									
311.	16.95	1	2.0	2.1	640.0	65.7	75.1	51.3	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	16.95	311.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

1 g/s E has max 1 hr impact 17 ug/m³

8	11.9
24	6.8
annual	1.7

8 hr no short term NH_3 180 ug/m³

24 43.2

$E = AAC / I$

$E_8 = 180/11.9 = 15.1$ g/s ~ 120 lbs/hr (both plants)

$E_{24} = 43.2/6.8 = 6.4$ g/s ~ 50 lbs/hr (both plants)

E_{annual} (for AAC = 100 ug/m³) $= \frac{100 \text{ ug}}{\text{m}^3} \cdot \frac{\text{m}^3}{1.7 \text{ ug}} \cdot \frac{\text{g}}{\text{AAC}} = 58.8$ g/AAC

$E_A = 58.8 \frac{\text{g}}{\text{AAC}} \cdot \frac{3600}{454} = 466$ lbs/hr

200#/h ≒ 25 g/s

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

No. 151258

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Cargill Fertilizer, Inc. Date 3-28-91

Address 8813 Hwy 41 South, Riverview, FL 33569 Dollars $ 1500.00

Applicant Name & Address Ozzie Morris (Env. Mgr.); same as above

Source of Revenue ✓# 577 079144 (500.00) and ✓# 577 079047 (1000.00)

Revenue Code 001031 Application Number AC 29-194504, -194507 & -194508

By R Bruce Mitchell

Department of Environmental Regulation

Daily Cash Listing # 0084

Date Received 03-25-91

DEP# 0426

Bureau of Accounting & Budgeting (Revenue Section)

Date Bureau of Air Regulation Received 3-27-91

Lister's Signature Lil Sweeney

Signature of Receiver R Bruce Mitchell

REMITTED BY	CHECK NUMBER	AMOUNT	RECEIPT NUMBER	REVENUE CODE	FILE NUMBER
Cargill Fertilizer Inc.	# 577 079144	$ 500.00	151258	001031	AC 29-194508
	# 577 079047	1,000.00	151258	001031	AC 29-194604
					AC 29-194507
		$ 1,500.00			

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

TO: Revenue Section
Bureau of Finance and Accounting

FROM: Cost Center Air Regulation

SUBJECT: Cash Listing Number # 0084 Dated 03-25-91

The cash listing received from your office has been checked and confirmed to be correct in all areas.

3-28-91
Date

Signature of Verifying Party

The cash listing received from your office has been checked and found to contain one or more discrepancies. A corrected cash listing is attached. Please adjust your records accordingly.

_____
Date

_____
Signature of Verifying Party

Number of remittances in this cash listing 2.

AIR Pollution
Applications

Patty Adams Tally

Environmental Protection Commission
of
Hillsborough County

1900 9th Avenue
Tampa, Florida 33605

MAR 21 '91

0.29

Ms. Patty Adams
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

AIR Pollution
Applications

Patty Adams Tally

RECEIVED
AIR MANAGEMENT ROOM
1991 MAR 25 AM 10:48

MAR21'91
0.29

atty Adams
da Department of Environmental
ation
Towers Office Building
Blair Stone Road
hassee, FL 32399-2400

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To:	Location:
To:	Location:
To:	Location:
From:	Date:

Interoffice Memorandum

TO: Cost Center Air Regulation

FROM: Revenue Section
Bureau of Finance and Accounting

DATE: 03-25-91

SUBJECT: Cash Listing # 0084, Deposit # 0426

Please respond to the items marked below and return to the Revenue Section of the Bureau of Finance and Accounting.

O The monies on the attached cash listing have been deposited for your area by the Bureau of Finance and Accounting. A transaction needs to be recorded in PATS for:

Applicant	Amount	Date Received
CARGILL Fertilizer Inc.	$ 1,500.00	

Please enter the transaction(s) and attach a copy of this memo to the PATS cash listing reflecting the payment(s).

O Receipt number _____ on your cash listing number _____ is out of balance by $ _____. Please correct and forward a corrected cash listing to the Bureau of Finance and Accounting.

O Other:

O/dg

Attachment(s)

NO. 577079144

REMITTANCE STATEMENT
CARGILL FERTILIZER, INC.

VENDOR NUMBER	INVOICE NUMBER	INVOICE DATE	GROSS AMOUNT	DISCOUNT	NET AMOUNT
3351		3 14 91	500 00		500 00
	Cooler Construction Permit Application				
1031					
TOTAL			500 00		500 00

IF CORRECT, DETACH AND RETAIN STATEMENT. IF NOT CORRECT, RETURN WITH STATEMENT.

CARGILL FERTILIZER, INC.

NO. **577** 079144

64-1278
611

DATE MO.	DAY	YR.
3/15/91		

PAY EXACTLY ********500 DOLLARS AND 00 CENTS

DOLLARS	CENTS
$ ********500	00

TO THE ORDER OF

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
4520 OAK FAIR BOULEVARD
TAMPA FL 33610

CARGILL FERTILIZER, INC.

AUTHORIZED SIGNATURE

THE CITIZENS AND SOUTHERN NATIONAL BANK
Atlanta, DeKalb County, Georgia

[redacted]

NO. 577079047

REMITTANCE STATEMENT
CARGILL FERTILIZER, INC.

VENDOR NUMBER	INVOICE NUMBER	INVOICE DATE	GROSS AMOUNT	DISCOUNT	NET AMOUNT
3351		3 13 91	100000		100000
	MAP Construction Permit Application				
	1031				
TOTAL			100000		100000

IF CORRECT, DETACH AND RETAIN STATEMENT. IF NOT CORRECT, RETURN WITH STATEMENT.

CARGILL FERTILIZER, INC.

NO. **577** 079047

64-1278
611

DATE MO.	DAY	YR.
3	14	91

PAY EXACTLY ******1,000 DOLLARS AND 00 CENTS

DOLLARS	CENTS
$ *****1,000	00

TO THE ORDER OF

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
4520 OAK FAIR BOULEVARD
TAMPA FL 33610

CARGILL FERTILIZER, INC.

AUTHORIZED SIGNATURE

THE CITIZENS AND SOUTHERN NATIONAL BANK
Atlanta, DeKalb County, Georgia

[redacted]