Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

RECEIVED
OCT 05 1999
BUREAU OF AIR REGULATION

NOTICE OF PERMIT ISSUANCE

In the Matter of an Application
for Permit by:

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

DEP Permit No.: 1050051-008-AC

Dear Mr. Susick:

Enclosed is Permit Number 1050051-008-AC for the construction of a 50 ton per hour granular MAP/DAP fertilizer plant, issued pursuant to Section 403.087, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tampa, Florida.

Sincerely,

Eric Peterson, P.E.
Air Permitting Engineer

cc: Mr. John B. Koogler, P.E., Koogler & Associates
Mr. Al Linero, P.E., DARM

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on SEP 2 8 1999 to the listed persons.

Clerk Stamp

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

Patricia G. Puckett — SEP 2 8 1999

(Clerk) (Date)

Department of Environmental Protection

Jeb Bush
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Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

PERMITTEE:
U.S. Agri-Chemicals Corp.
3225 State Road 630 West
Ft. Meade, FL 33841

Permit No.: 1050051-008-AC
Effective Date: 09/28/1999
Expiration Date: 6/1/02
Project: Granular MAP/DAP Plant

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-204 through 297, and Chapter 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

This permit is for the modification of the existing Prilled monoammonium phosphate (MAP) Plant to allow the production of up to 50 tons per hour (TPH) of granular MAP and/or diammonium phosphate (MAP/DAP) fertilizer. A new Granular MAP/DAP fertilizer plant will be constructed which shares some process equipment and air pollution control equipment with the existing Prilled MAP Plant. The plants will not be operated concurrently. When operating as the Prilled MAP Plant, the facility shall comply with the conditions contained Permit No. PSD-222-FL. When operating as the Granular MAP/DAP Plant, the facility shall comply with the conditions contained in this permit. Additionally, granular fertilizer from this plant and the Bartow facility may be stored in the existing storage building and loaded into railcars or trucks by the existing loadout system.

The new granulation equipment emission sources include the following: reactor, granulator, natural gas fired dryer, product screens, storage bin, bucket elevators, conveyors, and grinding mills. New air pollution control equipment includes a dryer high efficiency cyclone and a cooler high efficiency cyclone. The following existing air pollution control equipment, used at the Prilled MAP Plant, are also used to control emissions from the Granular MAP/DAP Plant: Tower Venturi, Cooler Venturi, and the cyclonic separator. The Granular MAP/DAP Plant process emission sources and associated air pollution control equipment are listed on the next page.

Granular MAP and DAP are made by reacting anhydrous ammonia and phosphoric acid in a covered reaction tank with the further addition of ammonia and acid in a granulator. The granulated product is then dried in a rotary drier. The dried product is sized by screening, grinding of oversized and recycling of undersized. The properly sized product is conveyed to the storage building for eventual loadout.

Emissions from the reactor and granulator are directed to a venturi/cyclonic ammonia absorber (R-G Ammonia Absorber) to recover ammonia and then to the existing Tower Venturi. The R-G Ammonia Absorber also controls particulate matter emissions. Emissions from the rotary dryer and material handling equipment are controlled by the new dryer cyclone and then the Tower

Venturi. Emissions from the cooler are controlled by the new Cooler Cyclone and the Cooler Venturi. The Tower Venturi and Cooler Venturi are ducted to the cyclonic separator. The cyclonic separator contains a chevron-type mist eliminator to further reduce entrained scrubber liquors prior to exhaust to the atmosphere.

Granular MAP/DAP Emission Sources & Associated Control Equipment

Process Emission Source/Identifier*	Control Equipment
MAP/DAP Reactor	Tower Venturi (*existing*), cyclonic separator (*existing*)
MAP/DAP Granulator	
Dryer	Dryer Cyclone, Tower Venturi (*existing*), cyclonic separator (*existing*)
Screen Feed Elevator	
Product Screen A	
Product Screen B	
Product Bin	
Oversize Mill A	
Oversize Mill B	
Product Feeder	
Recycle Conveyor	
Recycle Elevator	
Product Transfer Conveyor	
Fines Reclaim Conveyor	covered conveyor
Fines Reclaim Hopper	located inside storage building
Cooler (*existing*)	Cooler Cyclone, Cooler Venturi (*existing*), cyclonic separator (*existing*)
Product Elevator (*existing*)	enclosed
Storage Transfer Conveyor (*existing*)	covered conveyor

Notes:
1. Emissions from the reactor and granulator are ducted to the R-G Ammonia Absorber. Its primary purpose is to recover ammonia, so it is not considered control equipment. However, it controls PM/PM_{10} emissions and could be a source of fluoride emissions.
2. The Tower Venturi is labeled "large venturi" in the June 22, 1999 process flow diagram.
3. The Cooler Venturi is labeled "small venturi" in the June 22, 1999 process flow diagram.
4. All equipment is new unless otherwise noted.

*from process flow diagram received June 22, 1999

Rule Applicability Notes:

- The granular DAP Method of Operation is subject to 40 CFR 60 Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants* and Rule 62-296.403(f), *Phosphate Processing*.
- The granular MAP Method of Operation is subject to Rule 62-296.403(i), F.A.C., *Phosphate Processing*. This rule requires Best Available Control Technology (BACT) to control fluoride emissions during granular MAP production.

PERMITTEE:
U.S. Agri-Chemicals Corp.
Ft. Meade Chemical Plant

Permit No.: 1050051-008-AC
Project: Granular MAP/DAP Plant

- The facility has requested that this project be permitted as a non-PSD source. Therefore, this permit contains limitations to ensure that this modification does not exceed PSD significant increase levels.

Location: Ft. Meade Chemical Plant, State Road 630, 2 miles west of Ft. Meade, Polk County
UTM: 17-416.2 km East 3068.7 km North
Latitude: 27° 44' 40" North and **Longitude:** 81° 51' 08" West.
Facility ID No.: 1050051

Referenced Attachments
Best Available Control Technology (BACT) Determination dated September 10, 1999
Alternate Procedures and Requirements ASP No. 95-H-01

Permit History: No previous permits for the Granular MAP/DAP Plant. The Prilled MAP Plant is permitted under Permit No. PSD-222-FL.

The following conditions apply to the emissions unit listed below:

EU No.	EU Description
038	Granular MAP/DAP Plant
Notes: EU = Emissions Unit	
Please reference Permit No. and Emission Unit No. in all correspondence, test report submittals, etc.	

Specific Conditions:

1. A part of this permit is the attached 15 General Conditions and BACT determination dated September 10, 1999 [Rule 62-4.160, F.A.C.]

2. All applicable rules and design discharge limitations specified in the application must be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations.
[Rule 62-210.300, F.A.C.]

3. Unless otherwise indicated, the construction of the Granular MAP/DAP Plant shall be in accordance with the capacities and specifications in the application or in updated submittals.
[Rule 62-210.300, F.A.C.]

4. Pursuant to Rule 62-204.800, F.A.C., the permittee is subject to 40 CFR 60 Subpart V and the general provisions of 40 CFR 60 Subpart A, where applicable.

Operation Limitations

5. The dryer shall be fired with natural gas only.
[Rules 62-4.160(2), F.A.C. and 62-213.440(1), F.A.C.]

6. The Granular MAP/DAP Plant is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

7. The P_2O_5 process input rate shall not exceed 26.5 TPH (daily average basis) and 158, 920 tons per consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C.]

8. The production rate of granular MAP/DAP shall not exceed 50 TPH (daily average basis) and 300,000 tons per consecutive 12-month period for the total of both products. If any prilled MAP is produced during the same 12-month period, the above annual limitation is presented by the following equation:

$$G = 300{,}000 - P/1.9$$

where:
G = granular MAP/DAP production limit, tons per consecutive 12-month period
P = production of prilled MAP, tons per consecutive 12-month period
[Rule 62-210.200(PTE), F.A.C.]
Permitting Note: The production of prilled MAP is currently limited to 358,284 tons per consecutive 12-month period (i.e., 40.9 TPH x 8760 hrs/yr) in Permit No. PSD-FL-222. If the prilled MAP production limit is increased, the above condition must be modified to ensure that the potential fluoride emissions from the production of prilled MAP and granular MAP/DAP do not exceed 2.94 tons per consecutive 12-month period.

9. The permittee shall not allow any person to circumvent any pollution control device nor allow the emissions of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

10. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any emissions unit whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling without taking reasonable precautions to prevent such emissions.
[Rule 62-296.320(4)(c)1, F.A.C.]

11. Reasonable precautions may include, but shall not be limited to the following:
(a) Paving and maintenance of roads, parking areas and yards.

(b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
(c) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stockpiles and similar emissions units.
(d) Removal of particulate matter from roads and other paved areas under the control of the permittee of the emissions unit to prevent reentrainment, and from buildings or work areas to prevent particulate matter from becoming airborne.
(e) Landscaping or planting of vegetation.
(f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
(g) Confining abrasive blasting where possible.
(h) Enclosure or covering of conveyor systems.
[Rule 62-296.320(4)(c)3, F.A.C.]

12. The following work practices (reasonable precautions) shall be followed:
(a) The site yard, stockpiles, roadways, parking areas under control of the permittee shall be maintained to control emissions of unconfined particulate matter.
(b) Apply water when necessary to control emissions of unconfined particulate matter.
(c) Maintaining covers/enclosures for the Fines Reclaim Conveyor, Product Elevator, and Storage Transfer Conveyor.
[Rule 62-296.320(4)(c)2, F.A.C., response letter dated June 22, 1999]

13. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320, F.A.C.]

Emission Limitations

14. Total **fluoride** emissions from the Granular MAP/DAP Plant shall not exceed 0.98 lb/hr, 2.94 tons per consecutive 12-month period, and 0.037 lb F/ton of P_2O_5 input.
[Rule 62-210.200 (PTE), F.A.C.; proposed by applicant in 5/18/99 permit application]
Permitting Note: This limitation is more stringent than that contained in 40 CFR, Subpart V.

15. Total **fluoride** emissions from the Granular MAP/DAP Plant and the Prilled MAP Plant combined shall not exceed 2.94 tons per consecutive 12-month period.
[Rule 62-210.200 (PTE), F.A.C.; proposed by applicant in 5/18/99 permit application]
Permitting Note: Permit No. PSD-FL-222 limits annual total fluoride emissions to 1.7 tons from the Prilled MAP Plant.

16. **PM/PM_{10}** emissions from the Granular MAP/DAP Plant shall not exceed 8.38 lb/hr, 25.1 tons per consecutive 12-month period, and 0.168 lb PM/ton of product.
[Rules 62-210.200 (PTE) & 62-212.400, F.A.C.]

17. **Visible** emissions from the cyclonic separator stack shall not exceed 15% opacity. [Requested in permit application dated 5/17/99]

Excess Emissions

18. The Granular MAP/DAP Plant shall be subject to the following:

(a) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

(c) Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(d) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.

(e) In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [40 CFR 60 Subpart A, Rule 62-210.700, F.A.C.]

Monitoring of Operations

19. The permittee shall install, calibrate, maintain, and operate a flow monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The flow monitoring device shall have an accuracy of ±5 percent over its operating range. [40 CFR 60.223(a); Rule 62-204.800, F.A.C.]

20. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate (TPH) of phosphorus-bearing feed using a flow monitoring device meeting the requirements of Specific Condition No. 19 and then by proceeding according to the following procedure:

The equivalent P_2O_5 feed rate (P) shall be computed for each operating day using the equation:

$$P = (Mp) \times (Rp)$$

where: Mp = total mass flow rate of phosphorus-bearing feed (TPH)
Rp = P_2O_5 content, decimal fraction

The monitoring device required in Specific Condition No. 19 shall be used to determine total mass flow rate of the phosphorus-bearing feed. An approved method listed in 40 CFR 63.606(c)(3)(ii) shall be used to determine the P_2O_5 content of the feed.
[40 CFR 60.223(b); Rules 62-204.800 & 62-4.070(3), F.A.C.]

21. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measure and permanently record the pressure drop separately across the Tower Venturi and Cooler Venturi scrubbers. The monitoring devices shall have an accuracy of ±5 percent over its operating range.
[40 CFR 60.223(c); Rule 62-204.800, F.A.C.]

22. The permittee shall monitor and record the pressure drop of the R-G Ammonia Absorber at least once per 8-hour operating shift.
[Rule 62-213.440(1)(b), F.A.C.]

23. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measure the liquid flowrate for the R-G Ammonia Absorber, Tower Venturi, and Cooler Venturi. The flowrates shall be recorded at least once per 8-hour operating shift.
[Rule 62-213.440(1)(b), F.A.C.]

24. The permittee shall determine and record the scrubbing medium nitrogen to phosphorus (N:P) ratio for each of the following, via grab or composite sample, at least once per operating day: R-G Ammonia Absorber and final scrubbing system (i.e., Tower Venturi, Cooler Venturi, and cyclonic separator).
[Rule 62-213.440(1)(b), F.A.C.]

25. Recordkeeping for Specific Condition Nos. 22, 23, and 24 shall include the date and time of the measurements and the name of the person responsible for recording the measurements. This does not apply to continuous recording devices.
[Rule 62-213.440(1)(b), F.A.C.]

26. In order to provide reasonable assurance that the Granular MAP/DAP Plant air pollution control equipment is functioning properly during plant operation, the following set of scrubber operating parameters shall be maintained at a minimum of 90% of the values measured and recorded during any single prior satisfactory compliance tests conducted at a minimum of 90% of the maximum allowed operation rate: liquid flowrate and pressure drop for the R-G Ammonia Absorber, Tower Venturi, and Cooler Venturi and N:P ratio for the R-G Ammonia Scrubber and final scrubber system. Satisfactory compliance tests conducted below 90% of the maximum allowed operating rate will establish a set of new minimum scrubber parameter values for that lower operating rate (this does not exclude the use of parameter values previously established for higher operating rates).

A value outside of the acceptable scrubber operating parameter ranges does not necessarily constitute a violation, but rather establishes a requirement for an additional compliance test or tests as specified below:

Within 30 days of the operation of a pollution control device lower than 90% of the minimum acceptable numerical control parameter determined during satisfactory compliance tests as detailed above, the permittee shall conduct a compliance test for fluoride and PM/PM_{10} (except in the case of the N:P ratio, for which only a fluoride test is required) with the pollution control device operating at no higher than 110% of the lower value at which it operated, in order to demonstrate compliance. Prior notification shall be given to the Air Compliance Section of the Department's Southwest District (DEP-SWD),

The test result(s) shall be submitted to the Air Compliance Section of the DEP-SWD within 45 days of testing. Acceptance of the test(s) by the Department will establish whether the operation of the pollution control device, at the observed parameter, was not a violation of this permit. Furthermore, the permittee may submit an application to amend this permit to reflect the lower control parameter.

[Rules 62-4.070(3) & 62-210.650, F.A.C.]

Compliance Testing Requirements

27. Initial Compliance Test (Granular MAP/DAP Plant) Within 60 days after achieving the maximum production rate at which the MAP/DAP Plant will be operated, but not later than 180 days after its initial startup, the permittee shall conduct initial compliance tests for fluorides, PM/PM_{10}, and visible emissions on the cyclonic separator stack.
[40 CFR 60.8(a) and Rule 62-297.310(7)(a)1, F.A.C.]

28. Subsequent Compliance Tests. The cyclonic separator stack shall be tested for fluorides and visible emissions each federal fiscal year after the initial compliance test, during the period May - October. In addition, in the year prior to the five-year anniversary of the initial PM/PM_{10} compliance test, conduct a PM/PM_{10} compliance test on the cyclonic separator stack.
[Rule 62-297.310(7)(a)3 & 4, F.A.C.]

29. Test Methods
(a) Fluoride emissions testing shall be conducted in accordance with EPA Method 13A or 13B or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. (see attached ASP No. 95-H-01). An approved method listed in 40 CFR 63.606(c)(3)(ii) shall be used to determine the P_2O_5 content of the phosphate feed.
(b) PM/PM_{10} emissions testing shall be conducted in accordance with EPA Method 5 or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. The sample volume for each run shall be at least 30 dscf.
(c) When both particulate matter and visible emissions testing are required, the tests shall be conducted concurrently.

(**d**) Visible emissions observations shall be conducted in accordance with EPA Method 9 and shall be a minimum of 30 minutes.
(**e**) The minimum requirements for stationary point source emission test procedures shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60 Appendix A.
[Rules 62-296.320(4)(a)3(i), 62-297.310(4)(a)2, 62-4.070(3) & 62-297.401, F.A.C. 40 CFR 60.224]

30. At least 30 days prior to the date on which the initial Granular MAP/DAP Plant compliance test (15 days prior for all other tests) is due to begin, the permittee shall provide written notification of the test to the Air Compliance Section of the Department's Southwest District (DEP-SWD). The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test.
[Rule 62-297.340(1)(i), F.A.C.]

31. Test Operation Rate. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit (i.e., 50 TPH production rate and 26.5 TPH P_2O_5 input rate).
[Rule 62-297.310(2), F.A.C.]

32. Test Report. The permittee of an air pollution emissions unit, for which compliance tests are required, shall file a report with the Air Compliance Section of the DEP-SWD on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after each test is completed. The test report shall provide, at minimum, the information required in Rule 62-297.310(8), F.A.C. In addition the report shall provide the following information for each test run:

- MAP/DAP production rate (TPH)
- P_2O_5 input rate (TPH)
- Liquid flowrate (GPM) and pressure drop (inches H_20) for the R-G Ammonia Absorber, Tower Venturi, and Cooler Venturi
- Makeup liquid of the final scrubbing system
- N/P ratio for the R-G Ammonia Absorber and the final scrubbing system

[Rule 62-297.310(8), F.A.C.]

33. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

Reporting And Recordkeeping Requirements

34. The permittee shall furnish written notification to the Department as follows:

(a) A notification of the date construction of the Granular MAP/DAP Plant is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(b) A notification of the anticipated date of initial startup of the Granular MAP/DAP Plant postmarked not more than 60 days nor less than 30 days prior to such date.

(c) A notification of the actual date of initial startup of the Granular MAP/DAP Plant postmarked within 15 days after such date.

[40 CFR 60.7; Rule 62-204.800, F.A.C.]

35. Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7; Rule 62-204.800, F.A.C.]

36. A recordkeeping log shall be established and maintained to document compliance with Condition Nos. 7, 8, and 20. The daily logs shall be updated and completed by the end of the operating day. The monthly logs shall be updated and completed by the 15th day of the following month. The logs shall include, at a minimum, the following:

daily (each operating day)

(a) date
(b) hours of operation
(c) the calculated P_2O_5 feed rate (TPH, daily average basis)
(d) the calculated MAP/DAP production rate (TPH, daily average basis)

monthly

(e) month
(f) monthly P_2O_5 input and production of granular MAP/DAP and prilled MAP (tons)
(g) P_2O_5 input and production of granular MAP/DAP and prilled MAP for the most recent consecutive 12-month period (tons)
(h) if prilled MAP was produced during the most recent consecutive 12-month period, calculate the reduced production limit for granular MAP/DAP in accordance with Specific Condition No. 8 (tons per consecutive 12-month period)

These records shall be retained on file at the facility for at least five years and shall be made available to the Department upon request.
[Rule 62-213.440(1)(b), F.A.C.; 40 CFR 60.223(b)]

37. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department 60 days before the expiration of the permit.
[Rule 62-4.090, F.A.C.]

38. The permittee shall submit an Annual Operating Report to the Department's Southwest District office by March 1 of the following year for the previous year's operation.
[Rule 62-210.370(3), F.A.C.]

PSD Applicability

39. Based on the limitations contained in this permit, this modification at an existing PSD major facility is not considered a significant modification subject to PSD review on the basis that the net emissions increases associated with the modification were determined to be not significant (ref. Table 2, Rule 62-212.400, F.A.C.). Should the permittee request relaxation of any emission or operational limitations in this permit that would affect the potential to emit of this facility, the Department will evaluate the applicability of the PSD requirements of Chapter 62-212, F.A.C. as if the modifications allowed by this permit had not yet taken place.
[Rule 62-212.400(2)(g), F.A.C.]

Title V Operation Permit

40. A request for an operation permit must be submitted to the Department at least 180 days prior to the expiration date of this construction permit. To properly request an operation permit, the permittee shall submit:

(a) A completed DEP Form 62-210.900(1), F.A.C., *Application for Air Permit - Title V Source.*

(b) A copy of the test report required in Specific Condition No. 32, unless previously submitted.

(c) A copy of the records required in Specific Condition No. 36 for the most recent month.

[Rules 62-4.070(3) & 62-210.300(2), F.A.C.]

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

FOR W.C. Thomas, P.E.
District Air Administrator
Southwest District

ATTACHMENT - 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 403.141, 403.727, or 403.859 through 403.861, Florida.Statutes (F.S.). 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), F.S., 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 this permit.

4. Not applicable to Air Permits.

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 and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or 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 reasonable times, 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 conditions of the permit;

GENERAL CONDITIONS:

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 reasonable 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 noncompliance; and

b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to educe, eliminate, and prevent recurrence of the noncompliance. 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 arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. 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 Rule 62-4.120 and 62-730.300 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.

GENERAL CONDITIONS:

13. This permit also constitutes:

(X) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
(X) Compliance with New Source Performance Standards (NSPS)

14. 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:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. 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 the 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.

16. Not applicable to Air Permits.

17. Not applicable to Air Permits.

U.S. Agri-Chemicals Corporation
Ft. Meade Chemical Plant
Polk County

1. BACKGROUND

The applicant proposes to modify an existing Prilled monoammonium phosphate (MAP) Plant to allow production of up to 50 tons per hour (TPH) of granular MAP and/or diammonium phosphate (MAP/DAP) fertilizer. A new granular MAP/DAP plant will be constructed. The new plant will share some process and air pollution control equipment with the Prilled MAP Plant. The two plants will not operate concurrently. The facility is located at 3225 State Road 630 West, approximately two miles west of Ft. Meade, Polk County.

The new granulation equipment emission sources include the following: reactor, granulator, natural gas fired dryer, product screens, storage bin, bucket elevators, conveyors, and grinding mills. The new air pollution control equipment includes the following: venturi/cyclonic ammonia absorber, dryer high efficiency cyclone and cooler high efficiency cyclone. The following existing air pollution control equipment, used at the Prilled MAP Plant, was proposed to control emissions from the Granular MAP/DAP Plant: Tower Venturi, Cooler Venturi, and the cyclonic separator. This project addresses the following emissions unit(s):

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
032	Prilled MAP Plant
038	Granular MAP/DAP Plant

The production of granular DAP is subject to 40 CFR 60 Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants* and Rule 62-296.403(f), *Phosphate Processing*.

The production of MAP is subject to Rule 62-296.403(i), *Phosphate Processing*. This rule requires BACT to control fluoride emissions during granular MAP production. The applicant has requested that this project be permitted as a non-PSD source.

This facility is classified as a Major or Title V Source of air pollution because emissions of sulfur dioxide (SO_2), nitrogen dioxides (NOx), and particulate matter (PM/PM_{10}) each exceed 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for SO_2, NOx, and PM/PM_{10}, the facility is also a Major Facility with respect to Rule 62-212.400, *Prevention of Significant Deterioration*.

The applicant stated that this facility is not a major source of hazardous air pollutants (HAPs).

The project's process information, air pollution control equipment, and rule applicability are discussed in more detail in the Technical Evaluation dated September 10, 1999.

2. DATE OF RECEIPT OF A BACT APPLICATION

May 18, 1999, and updated by additional information as shown in the Technical Evaluation.

3. BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant proposed BACT for the PSD pollutant fluoride (F). BACT was proposed to be control equipment for fluoride emissions from the Granular MAP/DAP Plant.

Emission Limit: 0.037 lb F/ton of P_2O_5

Control Technology: The existing medium energy venturis (the Tower Venturi and Cooler Venturi), and cyclonic separator with chevron-type mist eliminator using recycled slurry as the scrubbing medium are the proposed air pollution control devices. This scrubbing system was previously accepted as PM/PM_{10} BACT for the existing Prilled MAP Plant.

4. REVIEWER(S)

Gerald Kissel and Eric Peterson prepared BACT determination

5. BACT DETERMINATION PROCEDURE

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques for control of each such pollutant. In addition, Rule 62-212.400(6)(a), F.A.C., states that in making the BACT determination, the Department shall give consideration to:

1. Any Environmental Protection Agency determination of BACT pursuant to Section 169 of the Clean Air Act, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
2. All scientific, engineering, and technical material and other information available to the Department.
3. The emission limiting standards or BACT determination of any other state.
4. The social and economic impact of the application of such technology.

The EPA currently directs that BACT should be determined using the "top-down" approach. In this approach, available control technologies are ranked in order of control effectiveness for the emissions unit under review. The most stringent alternative is evaluated first. That alternative is selected as BACT unless the alternative is found to not be achievable based on technical considerations or energy, environmental or economic impacts. If this alternative is eliminated for these reasons, the next most stringent alternative is considered. This top-down approach is continued until BACT is determined. In general EPA has identified five key steps in the top-down BACT process: Identify alternative control technologies; eliminate technically infeasible options; rank remaining control technologies by control effectiveness; evaluate most effective controls; select BACT.

BACT evaluation should be performed for each emissions source and pollutant under consideration.

The Department will consider the control or reduction of "non-regulated" air pollutants when determining the BACT limit for regulated pollutants, and will weigh control of non-regulated air pollutants favorably when considering control technologies for regulated pollutants. The Department will also favorably consider control technologies that utilize pollution prevention strategies. These approaches are consistent with EPA's consideration of environmental impacts.

The EPA has determined that a BACT determination shall not result in a selection of a control technology which would not meet any applicable emission limitation under 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants). Granular DAP production is subject to 40 CFR Part 60, Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants.*

In addition to the information submitted by the applicant and that information mentioned above, the Department may rely upon other available information in making its BACT determination. For each emission source, the Department's BACT determination is based on the information provided by the applicant and the informed judgement of the Department.

6. BACT ANALYSIS AND DEPARTMENT'S DETERMINATION

The applicant proposed a control strategy for fluoride emissions at the Granular MAP/DAP Plant. The applicant's proposal and the Department's BACT for each pollutant and source is discussed below.

6.1 GRANULAR MAP/DAP PLANT

In accordance with Rule 62-296.403(i), F.A.C., *Phosphate Processing,* a BACT determination is required for all plants, plant sections, or unit operations not listed in paragraphs (a) - (h) for the pollutant fluoride (granular MAP plants are not listed).

The applicant proposed BACT for MAP production to be the use of the existing air pollution control system and a limit of 0.037 lb F/ton P_2O_5. The use of the existing system, with a limitation on the amount of P_2O_5 input, will result in estimated maximum emissions of 2.94 TPY of fluoride. A review of the RACT/BACT/LAER Clearinghouse (RBLC) data shows that BACT for fluoride removal is generally packed bed scrubbing. One entry shows a venturi scrubbing system as BACT (ref. Permit No. PSD-FL-204). The most stringent BACT fluoride emission limit found was 0.0417 lb F/ton P_2O_5. The existing control equipment has demonstrated it can meet this limit. The initial performance test for the Prilled MAP Plant, conducted on December 29, 1997, resulted in fluoride emissions of 0.0076 lb F/ton P_2O_5 at an average MAP production rate of 37.2 TPH.

The Department agrees with the applicant's proposed BACT for the MAP production.

Additionally, the applicant has requested that the BACT requirements be applied to DAP production. DAP production is regulated by 40 CFR Part 60, Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants* and Rule 62-296.403(f), F.A.C., which both limit fluoride emissions of 0.06 lb F/ton P_2O_5. The application of the proposed BACT limit to DAP production is more stringent that that of 40 CFR 60 Subpart V and Rule 62-296.403, F.A.C.

Fluoride Controls

The applicant evaluated the following exhaust control technologies to control fluoride emissions, starting with the most stringent:

1. Add a packed tail gas scrubber using pond water.
2. Modify the existing scrubber system to convert the cyclonic separator into a packed scrubber.
3. Existing scrubber system (with the addition of pH adjustment to the scrubbing liquor).

Costs are summarized below. The applicant concluded that the costs of Options 1 and 2 are prohibitive and make these controls economically infeasible.

Option	Capital Cost	Total Control Cost ($/ton F removed)	Incremental Control Cost ($/additional ton F removed)
1	$1,350,000	$10,293	$218,775
2	$ 850,000	$ 9,147	$157,977
3	0*	$ 6,308	$ 0

*negligible cost for pH control

The costs above could be further refined, e.g., 6,000 hrs/yr was used in the calculations, no adjustment was added for inflation between 1996 and 1999, etc. Nevertheless, the results so clearly favor Option 3 that further refinement is unwarranted.

The Department agrees with the applicant's assessment that Option 3 represents the best selection. Based on the information provided by the applicant and the informed judgement of the Department, additional control of fluoride emissions is not feasible. BACT for this project for fluoride shall be the existing

scrubbing system, with pH adjustment. P2O5 input shall be limited by permit condition to 158,920 TPY to limit potential fluoride emissions to approximately 2.94 tons per year.

6.5 SUMMARY OF BACT DETERMINATION

Emissions Unit	Pollutant(s)	Emission Limit(s)	BACT
038 - Granular MAP/DAP Plant	fluoride	0.037 lb/ton P_2O_5 input 0.98 lb/hr 2.94 TPY	Existing Scrubbing System: medium energy venturis (the Tower Venturi and Cooler Venturi), and cyclonic separator with chevron-type mist eliminator using recycled slurry as the scrubbing medium, adjusted for pH.

7. COMPLIANCE

The compliance methods are briefly summarized here. Emission testing shall be required for the Granular MAP/DAP Plant for fluorides initially and annually thereafter within the period May - October.

Compliance with the fluoride limits shall be in accordance with EPA Method 13A or 13B as contained in 40 CFR 60, Appendix A, or other Department approved methods.

8. DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Gerald Kissel, P.E., Air Permitting Supervisor
Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619

Prepared September 10, 1999

Approved By:

FOR G Kissel, P.E.
W.C. Thomas, P.E.
District Air Administrator

9/28/99
Date:

Department of
Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

RECEIVED
SEP 14 1999
BUREAU OF AIR REGULATION

CERTIFIED MAIL

In the Matter of an Application
for Permit by:

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

DEP File No.: 1050051-008-AC

Dear Mr. Susick:

/

INTENT TO ISSUE

The Department of Environmental Protection gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated below.

The applicant, U.S. Agri-Chemicals Corporation, applied on May 18, 1999 to the Department of Environmental Protection for a permit to construct a 50 ton per hour granular monoammonium phosphate and/or diammonium phosphate (MAP/DAP) fertilizer plant located at the Ft. Meade Chemical Plant, State Road 630, 2 miles west of Ft. Meade, Polk County.

The Department has permitting jurisdiction under Section 403.087, Florida Statutes (F.S.). The project is not exempt from permitting procedures. The Department has determined that a construction permit, including a determination of Best Available Control Technology (BACT) is required for the proposed work.

The Department intends to issue this permit based on the belief reasonable assurances have been provided to indicate the proposed project will comply with the appropriate provisions of Florida Administrative Code (F.A.C.) Chapters 62-204 through 62-297 & 62-4.

Pursuant to Section 403.815, F.S., and Rule 62-110.106, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice will be published one time only within 30 days of receipt of this Intent to Issue, in the legal ad section of a newspaper of general circulation in the area affected. For the purposes of this rule "publication in a newspaper of general circulation in the affected area" 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

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Printed on recycled paper.

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 above. The applicant shall provide proof of publication to the Department, at 3804 Coconut Palm Drive, Tampa Florida 33619 within 7 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 timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the public notice or within 14 days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner;
(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
(c) Each rule or portion of a rule from which a variance or waiver is requested;
(d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
(e) The type of action requested;
(f) The specific facts that would justify a variance or waiver for the petitioner;
(g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and
(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of EPA and by the person under the Clean Air Act unless and until Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Any person listed below may request to obtain additional information, a copy of the application (except for information entitled to confidential treatment pursuant to Section 403.111,

F.S.), all relevant supporting materials, and all other materials available to the Department that are relevant to the permit decision. In addition any person may send written comments on the proposed permitting action. All requests and comments should be sent to this office at the address referenced above to the attention of Mr. Jerry Kissel (phone no. 813-744-6100 ext. 107) referencing Permit File No. 1050051-008-AC. All comments received within 14 days of receipt of this Intent to Issue will be considered in the Department's final determination.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

J. Kissel, P.E.
FOR Richard D. Garrity, Ph.D.
Director of District Management
Southwest District

Attachment

cc: Mr. John B. Koogler, P.E., Koogler & Associates
Mr. Al Linero, P.E., DARM

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE was sent to the addressee by certified mail and all copies were sent by regular mail before the close of business on SEP 10 1999 to the listed persons, unless otherwise noted.

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Patricia D. Burkett — SEP 10 1999
Clerk — Date

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Protection gives notice of its intent to issue an air pollution permit (Permit File No. 1050051-008-AC) to U.S. Agrichemicals Corporation for the construction of a 50 ton per hour granular phosphate plant located at the Fort Meade Chemical Plant, State Road 630, 2 miles west of Fort Meade, Polk County. A determination of Best Available Control Technology (BACT) was required in accordance with Rule 62-296.403, Florida Administrative Code. MAILING ADDRESS: U.S. Agrichemicals Corporation, 3225 State Road 630 West, Fort Meade, FL 33841-9799, to the attention of Mr. Steven J. Susick, P.E.

The Department will issue the permit with its attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedure for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
(c) A statement of how and when petitioner received notice of the agency action or proposed action;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

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 8413 Laurel Fair Circle, Suite 200, Tampa, Florida.

Any person may request to obtain additional information, a copy of the application (except for information entitled to confidential treatment pursuant to Section 403.111, F.S.), all relevant supporting materials, a copy of the permit draft, and all other materials available to the Department that are relevant to the permit decision. Additionally, the Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of "Public Notice of Intent to Issue Permit." Requests and written comments filed should be provided to the Florida Department of Environmental Protection at 3804 Coconut Palm Drive, Tampa, FL 33619 to the attention of Mr. Jerry Kissel (phone no. 813-744-6100 ext. 107) referencing Permit File No. 1050051-008-AC. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

DRAFT

David B. Struhs
Secretary

PERMITTEE:
U.S. Agri-Chemicals Corp.
3225 State Road 630 West
Ft. Meade, FL 33841

Permit No.: 1050051-008-AC
Effective Date:
Expiration Date: 6/1/02
Project: Granular MAP/DAP Plant

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-204 through 297, and Chapter 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

This permit is for the modification of the existing Prilled monoammonium phosphate (MAP) Plant to allow the production of up to 50 tons per hour (TPH) of granular MAP and/or diammonium phosphate (MAP/DAP) fertilizer. A new Granular MAP/DAP fertilizer plant will be constructed which shares some process equipment and air pollution control equipment with the existing Prilled MAP Plant. The plants will not be operated concurrently. When operating as the Prilled MAP Plant, the facility shall comply with the conditions contained Permit No. PSD-222-FL. When operating as the Granular MAP/DAP Plant, the facility shall comply with the conditions contained in this permit. Additionally, granular fertilizer from this plant and the Bartow facility may be stored in the existing storage building and loaded into railcars or trucks by the existing loadout system.

The new granulation equipment emission sources include the following: reactor, granulator, natural gas fired dryer, product screens, storage bin, bucket elevators, conveyors, and grinding mills. New air pollution control equipment includes a dryer high efficiency cyclone and a cooler high efficiency cyclone. The following existing air pollution control equipment, used at the Prilled MAP Plant, are also used to control emissions from the Granular MAP/DAP Plant: Tower Venturi, Cooler Venturi, and the cyclonic separator. The Granular MAP/DAP Plant process emission sources and associated air pollution control equipment are listed on the next page.

Granular MAP and DAP are made by reacting anhydrous ammonia and phosphoric acid in a covered reaction tank with the further addition of ammonia and acid in a granulator. The granulated product is then dried in a rotary drier. The dried product is sized by screening, grinding of oversized and recycling of undersized. The properly sized product is conveyed to the storage building for eventual loadout.

Emissions from the reactor and granulator are directed to a venturi/cyclonic ammonia absorber (R-G Ammonia Absorber) to recover ammonia and then to the existing Tower Venturi. The R-G Ammonia Absorber also controls particulate matter emissions. Emissions from the rotary dryer and material handling equipment are controlled by the new dryer cyclone and then the Tower

Venturi. Emissions from the cooler are controlled by the new Cooler Cyclone and the Cooler Venturi. The Tower Venturi and Cooler Venturi are ducted to the cyclonic separator. The cyclonic separator contains a chevron-type mist eliminator to further reduce entrained scrubber liquors prior to exhaust to the atmosphere.

Granular MAP/DAP Emission Sources & Associated Control Equipment

Process Emission Source/Identifier*	Control Equipment
MAP/DAP Reactor	Tower Venturi (*existing*), cyclonic separator (*existing*)
MAP/DAP Granulator	
Dryer	Dryer Cyclone, Tower Venturi (*existing*), cyclonic separator (*existing*)
Screen Feed Elevator	
Product Screen A	
Product Screen B	
Product Bin	
Oversize Mill A	
Oversize Mill B	
Product Feeder	
Recycle Conveyor	
Recycle Elevator	
Product Transfer Conveyor	
Fines Reclaim Conveyor	covered conveyor
Fines Reclaim Hopper	located inside storage building
Cooler (*existing*)	Cooler Cyclone, Cooler Venturi (*existing*), cyclonic separator (*existing*)
Product Elevator (*existing*)	enclosed
Storage Transfer Conveyor (*existing*)	covered conveyor

Notes:
1. Emissions from the reactor and granulator are ducted to the R-G Ammonia Absorber. Its primary purpose is to recover ammonia, so it is not considered control equipment. However, it controls PM/PM_{10} emissions and could be a source of fluoride emissions.
2. The Tower Venturi is labeled "large venturi" in the June 22, 1999 process flow diagram.
3. The Cooler Venturi is labeled "small venturi" in the June 22, 1999 process flow diagram.
4. All equipment is new unless otherwise noted.

*from process flow diagram received June 22, 1999

Rule Applicability Notes:

- The granular DAP Method of Operation is subject to 40 CFR 60 Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants* and Rule 62-296.403(f), *Phosphate Processing*.
- The granular MAP Method of Operation is subject to Rule 62-296.403(i), F.A.C., *Phosphate Processing*. This rule requires Best Available Control Technology (BACT) to control fluoride emissions during granular MAP mode operation.

- The facility has requested that this project be permitted as a non-PSD source. Therefore, this permit contains limitations to ensure that this modification does not exceed PSD significant increase levels.

Location: Ft. Meade Chemical Plant, State Road 630, 2 miles west of Ft. Meade, Polk County
UTM: 17-416.2 km East 3068.7 km North
Latitude: 27° 44' 40" North and **Longitude:** 81° 51' 08" West.
Facility ID No.: 1050051

Referenced Attachments
Best Available Control Technology (BACT) Determination dated September 10, 1999
Alternate Procedures and Requirements ASP No. 95-H-01

Permit History: No previous permits for the Granular MAP/DAP Plant. The Prilled MAP Plant is permitted under Permit No. PSD-222-FL.

The following conditions apply to the emissions unit listed below:

EU No.	EU Description
038	Granular MAP/DAP Plant
Notes: EU = Emissions Unit	
Please reference Permit No. and Emission Unit No. in all correspondence, test report submittals, etc.	

Specific Conditions:

1. A part of this permit is the attached 15 General Conditions and BACT determination dated September 10, 1999 [Rule 62-4.160, F.A.C.]

2. All applicable rules and design discharge limitations specified in the application must be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations.
[Rule 62-210.300, F.A.C.]

3. Unless otherwise indicated, the construction of the Granular MAP/DAP Plant shall be in accordance with the capacities and specifications in the application or in updated submittals.
[Rule 62-210.300, F.A.C.]

4. Pursuant to Rule 62-204.800, F.A.C., the permittee is subject to 40 CFR 60 Subpart V and the general provisions of 40 CFR 60 Subpart A, where applicable.

Operation Limitations

5. The dryer shall be fired with natural gas only.
[Rules 62-4.160(2), F.A.C. and 62-213.440(1), F.A.C.]

6. The Granular MAP/DAP Plant is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

7. The P_2O_5 process input rate shall not exceed 26.5 TPH (daily average basis) and 158, 920 tons per consecutive 12-month period.
[Rule 62-210.200(PTE), F.A.C.]

8. The production rate of granular MAP/DAP shall not exceed 50 TPH (daily average basis) and 300,000 tons per consecutive 12-month period for the total of both products. If any prilled MAP is produced during the same 12-month period, the above annual limitation is presented by the following equation:

$$G = 300{,}000 - P/1.9$$

where:
G = granular MAP/DAP production limit, tons per consecutive 12-month period
P = production of prilled MAP, tons per consecutive 12-month period
[Rule 62-210.200(PTE), F.A.C.]
Permitting Note: The production of prilled MAP is currently limited to 358,284 tons per consecutive 12-month period (i.e., 40.9 TPH x 8760 hrs/yr) in Permit No. PSD-FL-222. If the prilled MAP production limit is increased, the above condition must be modified to ensure that the potential fluoride emissions from the production of prilled MAP and granular MAP/DAP do not exceed 2.94 tons per consecutive 12-month period.

9. The permittee shall not allow any person to circumvent any pollution control device nor allow the emissions of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

10. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any emissions unit whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling without taking reasonable precautions to prevent such emissions.
[Rule 62-296.320(4)(c)1, F.A.C.]

11. Reasonable precautions may include, but shall not be limited to the following:
(a) Paving and maintenance of roads, parking areas and yards.

(**b**) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
(**c**) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stockpiles and similar emissions units.
(**d**) Removal of particulate matter from roads and other paved areas under the control of the permittee of the emissions unit to prevent reentrainment, and from buildings or work areas to prevent particulate matter from becoming airborne.
(**e**) Landscaping or planting of vegetation.
(**f**) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
(**g**) Confining abrasive blasting where possible.
(**h**) Enclosure or covering of conveyor systems.
[Rule 62-296.320(4)(c)3, F.A.C.]

12. The following work practices (reasonable precautions) shall be followed:
(**a**) The site yard, stockpiles, roadways, parking areas under control of the permittee shall be maintained to control emissions of unconfined particulate matter.
(**b**) Apply water when necessary to control emissions of unconfined particulate matter.
(**c**) Maintaining covers/enclosures for the Fines Reclaim Conveyor, Product Elevator, and Storage Transfer Conveyor.
[Rule 62-296.320(4)(c)2, F.A.C., response letter dated June 22, 1999]

13. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320, F.A.C.]

Emission Limitations

14. Total **fluoride** emissions from the Granular MAP/DAP Plant shall not exceed 0.98 lb/hr, 2.94 tons per consecutive 12-month period, and 0.037 lb F/ton of P_2O_5 input.
[Rule 62-210.200 (PTE), F.A.C.; proposed by applicant in 5/18/99 permit application]
Permitting Note: This limitation is more stringent than that contained in 40 CFR, Subpart V.

15. Total **fluoride** emissions from the Granular MAP/DAP Plant and the Prilled MAP Plant combined shall not exceed 2.94 tons per consecutive 12-month period.
[Rule 62-210.200 (PTE), F.A.C.; proposed by applicant in 5/18/99 permit application]
Permitting Note: Permit No. PSD-FL-222 limits annual total fluoride emissions to 1.7 tons from the Prilled MAP Plant.

16. **PM/PM_{10}** emissions from the Granular MAP/DAP Plant shall not exceed 8.38 lb/hr, 25.1 tons per consecutive 12-month period, and 0.168 lb PM/ton of product.
[Rules 62-210.200 (PTE) & 62-212.400, F.A.C.]

17. Visible emissions from the cyclonic separator stack shall not exceed 15% opacity.
[Requested in permit application dated 5/17/99]

Excess Emissions

18. The Granular MAP/DAP Plant shall be subject to the following:

(a) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

(c) Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(d) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.

(e) In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[40 CFR 60 Subpart A, Rule 62-210.700, F.A.C.]

Monitoring of Operations

19. The permittee shall install, calibrate, maintain, and operate a flow monitoring device which can be used to determine the mass flow of phosphorus-bearing feed material to the process. The flow monitoring device shall have an accuracy of ±5 percent over its operating range.
[40 CFR 60.223(a); Rule 62-204.800, F.A.C.]

20. The permittee shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate (TPH) of phosphorus-bearing feed using a flow monitoring device meeting the requirements of Specific Condition No. 19 and then by proceeding according to the following procedure:

The equivalent P_2O_5 feed rate (P) shall be computed for each operating day using the equation:

$$P = (Mp) \times (Rp)$$

where: Mp = total mass flow rate of phosphorus-bearing feed (TPH)
Rp = P_2O_5 content, decimal fraction

The monitoring device required in Specific Condition No. 19 shall be used to determine total mass flow rate of the phosphorus-bearing feed. An approved method listed in 40 CFR 63.606(c)(3)(ii) shall be used to determine the P_2O_5 content of the feed.
[40 CFR 60.223(b); Rules 62-204.800 & 62-4.070(3), F.A.C.]

21. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measure and permanently record the pressure drop separately across the Tower Venturi and Cooler Venturi scrubbers. The monitoring devices shall have an accuracy of ±5 percent over its operating range.
[40 CFR 60.223(c); Rule 62-204.800, F.A.C.]

22. The permittee shall monitor and record the pressure drop of the R-G Ammonia Absorber at least once per 8-hour operating shift.
[Rule 62-213.440(1)(b), F.A.C.]

23. The permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measure the liquid flowrate for the R-G Ammonia Absorber, Tower Venturi, Cooler Venturi, and cyclonic scrubber. The flowrates shall be recorded at least once per 8-hour operating shift.
[Rule 62-213.440(1)(b), F.A.C.]

24. The permittee shall determine and record the scrubbing medium nitrogen to phosphorus (N:P) ratio for each of the following, via grab or composite sample, at least once per operating day: R-G Ammonia Absorber and final scrubbing system (i.e., Tower Venturi, Cooler Venturi, and cyclonic separator).
[Rule 62-213.440(1)(b), F.A.C.]

25. Recordkeeping for Specific Condition Nos. 22, 23, and 24 shall include the date and time of the measurements and the name of the person responsible for recording the measurements. This does not apply to continuous recording devices.
[Rule 62-213.440(1)(b), F.A.C.]

26. In order to provide reasonable assurance that the Granular MAP/DAP Plant air pollution control equipment is functioning properly during plant operation, the following scrubber operating parameters shall be maintained at a minimum of 90% of the values measured and recorded during the most recent satisfactory compliance test: liquid flowrate, pressure drop, and N:P ratio for the R-G Ammonia Absorber, Tower Venturi, Cooler Venturi, and cyclonic scrubber. A value outside of the above ranges does not necessarily constitute a violation, but rather establishes a requirement for an additional compliance test or tests as specified below:

Within 30 days of the operation of a pollution control device lower than 90% of the minimum numerical control parameter determined during the most recent compliance test, the permittee shall conduct a compliance tests for fluoride and PM/PM_{10} (except in that case of the N:P ratio, for which only a fluoride test is required) with the pollution control device operating at no higher than the lower value at which it operated, in order to demonstrate compliance. Prior notification shall be given to the Air Compliance Section of the Department's Southwest District (DEP-SWD),

The test result(s) shall be submitted to the Air Compliance Section of the DEP-SWD within 45 days of testing. Acceptance of the test(s) by the Department will establish whether the operation of the pollution control device, at the observed parameter, was not a violation of this permit. Furthermore, the permittee may submit an application to amend this permit to reflect the lower control parameter.

[Rules 62-4.070(3) & 62-210.650, F.A.C.]

Compliance Testing Requirements

27. Initial Compliance Test (Granular MAP/DAP Plant) Within 60 days after achieving the maximum production rate at which the MAP/DAP Plant will be operated, but not later than 180 days after its initial startup, the permittee shall conduct initial compliance tests for fluorides, PM/PM_{10}, and visible emissions on the cyclonic scrubber stack.
[40 CFR 60.8(a) and Rule 62-297.310(7)(a)1, F.A.C.]

28. Subsequent Compliance Tests. The cyclonic separator stack shall be tested for fluorides and visible emissions each federal fiscal year after the initial compliance test, during the period May - October. In addition, in the year prior to the five-year anniversary of the initial PM/PM_{10} compliance test, conduct a PM/PM_{10} compliance test on the cyclonic separator stack.
[Rule 62-297.310(7)(a)3 & 4, F.A.C.]

29. Test Methods
(a) Fluoride emissions testing shall be conducted in accordance with EPA Method 13A or 13B or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. (see attached ASP No. 95-H-01). An approved method listed in 40 CFR 63.606(c)(3)(ii) shall be used to determine the P_2O_5 content of the phosphate feed.
(b) PM/PM_{10} emissions testing shall be conducted in accordance with EPA Method 5 or other methods approved by the Department as an Alternate Procedure in accordance with Rule 62-297.620, F.A.C. The sample volume for each run shall be at least 30 dscf.
(c) When both particulate matter and visible emissions testing are required, the tests shall be conducted concurrently.
(d) Visible emissions observations shall be conducted in accordance with EPA Method 9 and shall be a minimum of 30 minutes.

(e) The minimum requirements for stationary point source emission test procedures shall be in accordance with Chapter 62-297, F.A.C. and 40 CFR 60 Appendix A.
[Rules 62-296.320(4)(a)3(i), 62-297.310(4)(a)2, 62-4.070(3) & 62-297.401, F.A.C. 40 CFR 60.224]

30. At least 30 days prior to the date on which the initial Granular MAP/DAP Plant compliance test (15 days prior for all other tests) is due to begin, the permittee shall provide written notification of the test to the Air Compliance Section of the Department's Southwest District (DEP-SWD). The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test.
[Rule 62-297.340(1)(i), F.A.C.]

31. Test Operation Rate. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit (i.e., 50 TPH production rate and 26.5 TPH P_2O_5 input rate).
[Rule 62-297.310(2), F.A.C.]

32. Test Report. The permittee of an air pollution emissions unit, for which compliance tests are required, shall file a report with the Air Compliance Section of the DEP-SWD on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after each test is completed. The test report shall provide, at minimum, the information required in Rule 62-297.310(8), F.A.C. In addition the report shall provide the following information for each test run:

- MAP/DAP production rate (TPH)
- P_2O_5 input rate (TPH)
- Liquid flowrate (GPM) and pressure drop (inches H_20) for the R-G Ammonia Absorber, Tower Venturi, and Cooler Venturi
- Makeup liquid of the final scrubbing system
- N/P ratio for the R-G Ammonia Absorber and the final scrubbing system

[Rule 62-297.310(8), F.A.C.]

33. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the

emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORDKEEPING REQUIREMENTS

34. The permittee shall furnish written notification to the Department as follows:

(**a**) A notification of the date construction of the Granular MAP/DAP Plant is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(**b**) A notification of the anticipated date of initial startup of the Granular MAP/DAP Plant postmarked not more than 60 days nor less than 30 days prior to such date.

(**c**) A notification of the actual date of initial startup of the Granular MAP/DAP Plant postmarked within 15 days after such date.

[40 CFR 60.7; Rule 62-204.800, F.A.C.]

35. Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7; Rule 62-204.800, F.A.C.]

36. A recordkeeping log shall be established and maintained to document compliance with Condition Nos. 7, 8, and 20. The daily logs shall be updated and completed by the end of the operating day. The monthly logs shall be updated and completed by the 15th day of the following month. The logs shall include, at a minimum, the following:

daily (each operating day)

- (**a**) date
- (**b**) hours of operation
- (**c**) the calculated P_2O_5 feed rate (TPH, daily average basis)
- (**d**) the calculated MAP/DAP production rate (TPH, daily average basis)

monthly

- (**e**) month
- (**f**) monthly P_2O_5 input and production of granular MAP/DAP and prilled MAP (tons)
- (**g**) P_2O_5 input and production of granular MAP/DAP and prilled MAP for the most recent consecutive 12-month period (tons)
- (**h**) if prilled MAP was produced during the most recent consecutive 12-month period, calculate the reduced production limit for granular MAP/DAP in accordance with Specific Condition No. 8 (tons per consecutive 12-month period)

These records shall be retained on file at the facility for at least five years and shall be made available to the Department upon request.
[Rule 62-213.440(1)(b), F.A.C.; 40 CFR 60.223(b)]

37. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department 60 days before the expiration of the permit.
[Rule 62-4.090, F.A.C.]

38. The permittee shall submit an Annual Operating Report to the Department's Southwest District office by March 1 of the following year for the previous year's operation.
[Rule 62-210.370(3), F.A.C.]

PSD Applicability

39. Based on the limitations contained in this permit, this modification at an existing PSD major facility is not considered a significant modification subject to PSD review on the basis that the net emissions increases associated with the modification were determined to be not significant (ref. Table 2, Rule 62-212.400, F.A.C.). Should the permittee request relaxation of any emission or operational limitations in this permit that would affect the potential to emit of this facility, the Department will evaluate the applicability of the PSD requirements of Chapter 62-212, F.A.C. as if the modifications allowed by this permit had not yet taken place.
[Rule 62-212.400(2)(g), F.A.C.]

Title V Operation Permit

40. A request for an operation permit must be submitted to the Department at least 180 days prior to the expiration date of this construction permit. To properly request an operation permit, the permittee shall submit:

(a) A completed DEP Form 62-210.900(1), F.A.C., *Application for Air Permit - Title V Source*.

(b) A copy of the test report required in Specific Condition No. 32, unless previously submitted.

(c) A copy of the records required in Specific Condition No. 36 for the most recent month.

[Rules 62-4.070(3) & 62-210.300(2), F.A.C.]

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

_____

W.C. Thomas, P.E.
District Air Administrator
Southwest District

DRAFT

ATTACHMENT - 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 403.141, 403.727, or 403.859 through 403.861, Florida.Statutes (F.S.). 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), F.S., 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 this permit.

4. Not applicable to Air Permits.

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 and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or 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 reasonable times, 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 conditions of the permit;

GENERAL CONDITIONS:

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 reasonable 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 noncompliance; and

b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to educe, eliminate, and prevent recurrence of the noncompliance. 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 arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. 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 Rule 62-4.120 and 62-730.300 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.

GENERAL CONDITIONS:

13. This permit also constitutes:

(X) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
(X) Compliance with New Source Performance Standards (NSPS)

14. 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:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used;
6. the results of such analyses.

15. 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 the 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.

16. Not applicable to Air Permits.

17. Not applicable to Air Permits.

U.S. Agri-Chemicals Corporation
Ft. Meade Chemical Plant
Polk County

DRAFT

1. BACKGROUND

The applicant proposes to modify an existing Prilled monoammonium phosphate (MAP) Plant to allow production of up to 50 tons per hour (TPH) of granular MAP and/or diammonium phosphate (MAP/DAP) fertilizer. A new granular MAP/DAP plant will be constructed. The new plant will share some process and air pollution control equipment with the Prilled MAP Plant. The two plants will not operate concurrently. The facility is located at 3225 State Road 630 West, approximately two miles west of Ft. Meade, Polk County.

The new granulation equipment emission sources include the following: reactor, granulator, natural gas fired dryer, product screens, storage bin, bucket elevators, conveyors, and grinding mills. The new air pollution control equipment includes the following: venturi/cyclonic ammonia absorber, dryer high efficiency cyclone and cooler high efficiency cyclone. The following existing air pollution control equipment, used at the Prilled MAP Plant, was proposed to control emissions from the Granular MAP/DAP Plant: Tower Venturi, Cooler Venturi, and the cyclonic separator. This project addresses the following emissions unit(s):

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
032	Prilled MAP Plant
038	Granular MAP/DAP Plant

The granular DAP mode is subject to 40 CFR 60 Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants* and Rule 62-296.403(f), *Phosphate Processing.* The granular MAP mode is subject to Rule 62-296.403(i), *Phosphate Processing.* This rule requires BACT to control fluoride emissions during granular MAP mode operation. The applicant has requested that this project be permitted as a non-PSD source.

This facility is classified as a Major or Title V Source of air pollution because emissions of sulfur dioxide (SO_2), nitrogen dioxides (NOx), and particulate matter (PM/PM_{10}) each exceed 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for SO_2, NOx, and PM/PM_{10}, the facility is also a Major Facility with respect to Rule 62-212.400, *Prevention of Significant Deterioration.*

The applicant stated that this facility is not a major source of hazardous air pollutants (HAPs).

The project's process information, air pollution control equipment, and rule applicability are discussed in more detail in the Technical Evaluation dated September 10, 1999.

2. DATE OF RECEIPT OF A BACT APPLICATION

May 18, 1999, and updated by additional information as shown in the Technical Evaluation.

3. BACT DETERMINATION REQUESTED BY THE APPLICANT

The applicant proposed BACT for the PSD pollutant fluoride (F). BACT was proposed to be control equipment for fluoride emissions from the Granular MAP/DAP Plant.

Emission Limit: 0.037 lb F/ton of P_2O_5

Control Technology: The existing medium energy venturis (the Tower Venturi and Cooler Venturi), and cyclonic separator with chevron-type mist eliminator using recycled slurry as the scrubbing medium are the proposed air pollution control devices. This scrubbing system was previously accepted as PM/PM_{10} BACT for the existing Prilled MAP Plant.

4. REVIEWER(S)

Gerald Kissel and Eric Peterson prepared BACT determination

5. BACT DETERMINATION PROCEDURE

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques for control of each such pollutant. In addition, Rule 62-212.400(6)(a), F.A.C., states that in making the BACT determination, the Department shall give consideration to:

1. Any Environmental Protection Agency determination of BACT pursuant to Section 169 of the Clean Air Act, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
2. All scientific, engineering, and technical material and other information available to the Department.
3. The emission limiting standards or BACT determination of any other state.
4. The social and economic impact of the application of such technology.

The EPA currently directs that BACT should be determined using the "top-down" approach. In this approach, available control technologies are ranked in order of control effectiveness for the emissions unit under review. The most stringent alternative is evaluated first. That alternative is selected as BACT unless the alternative is found to not be achievable based on technical considerations or energy, environmental or economic impacts. If this alternative is eliminated for these reasons, the next most stringent alternative is considered. This top-down approach is continued until BACT is determined. In general EPA has identified five key steps in the top-down BACT process: Identify alternative control technologies; eliminate technically infeasible options; rank remaining control technologies by control effectiveness; evaluate most effective controls; select BACT.

BACT evaluation should be performed for each emissions source and pollutant under consideration.

The Department will consider the control or reduction of "non-regulated" air pollutants when determining the BACT limit for regulated pollutants, and will weigh control of non-regulated air pollutants favorably when considering control technologies for regulated pollutants. The Department will also favorably consider control technologies that utilize pollution prevention strategies. These approaches are consistent with EPA's consideration of environmental impacts.

The EPA has determined that a BACT determination shall not result in a selection of a control technology which would not meet any applicable emission limitation under 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants). The granular DAP mode is subject to 40 CFR Part 60, Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants.*

In addition to the information submitted by the applicant and that information mentioned above, the Department may rely upon other available information in making its BACT determination. For each emission source, the Department's BACT determination is based on the information provided by the applicant and the informed judgement of the Department.

DRAFT

6. BACT ANALYSIS AND DEPARTMENT'S DETERMINATION

The applicant proposed a control strategy for fluoride emissions at the Granular MAP/DAP Plant. The applicant's proposal and the Department's BACT for each pollutant and source is discussed below.

6.1 GRANULAR MAP/DAP PLANT

In accordance with Rule 62-296.403(i), F.A.C., *Phosphate Processing,* a BACT determination is required for all plants, plant sections, or unit operations not listed in paragraphs (a) - (h) for the pollutant fluoride (granular MAP plants are not listed).

The applicant proposed BACT for MAP production to be the use of the existing air pollution control system and a limit of 0.037 lb F/ton P_2O_5. The use of the existing system, with a limitation on the amount of P_2O_5 input, will result in estimated maximum emissions of 2.94 TPY of fluoride. A review of the RACT/BACT/LAER Clearinghouse (RBLC) data shows that BACT for fluoride removal is generally packed bed scrubbing. One entry shows a venturi scrubbing system as BACT (ref. Permit No. PSD-FL-204). The most stringent BACT fluoride emission limit found was 0.0417 lb F/ton P_2O_5. The existing control equipment has demonstrated it can meet this limit. The initial performance test for the Prilled MAP Plant, conducted on December 29, 1997, resulted in fluoride emissions of 0.0076 lb F/ton P_2O_5 at an average MAP production rate of 37.2 TPH.

The Department agrees with the applicant's proposed BACT for the MAP mode.

Additionally, the applicant has requested that the BACT requirements be applied to the DAP mode. The DAP mode is regulated by 40 CFR Part 60, Subpart V, *Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants* and Rule 62-296.403(f), F.A.C., which both limit fluoride emissions of 0.06 lb F/ton P_2O_5. The application of the proposed BACT limit to the DAP mode is more stringent that that of 40 CFR 60 Subpart V and Rule 62-296.403, F.A.C.

Fluoride Controls

The applicant evaluated the following exhaust control technologies to control fluoride emissions, starting with the most stringent:

1. Add a packed tail gas scrubber using pond water.
2. Modify the existing scrubber system to convert the cyclonic separator into a packed scrubber.
3. Existing scrubber system (with the addition of pH adjustment to the scrubbing liquor).

Costs are summarized below. The applicant concluded that the costs of Options 1 and 2 are prohibitive and make these controls economically infeasible.

Option	Capital Cost	Total Control Cost ($/ton F removed)	Incremental Control Cost ($/additional ton F removed)
1	$1,350,000	$10,293	$218,775
2	$ 850,000	$ 9,147	$157,977
3	0*	$ 6,308	$ 0

*negligible cost for pH control

The costs above could be further refined, e.g., 6,000 hrs/yr was used in the calculations, no adjustment was added for inflation between 1996 and 1999, etc. Nevertheless, the results so clearly favor Option 3 that further refinement is unwarranted.

The Department agrees with the applicant's assessment that Option 3 represents the best selection. Based on the information provided by the applicant and the informed judgement of the Department, additional control of fluoride emissions is not feasible. BACT for this project for fluoride shall be the existing

scrubbing system, with pH adjustment. P2O5 input shall be limited by permit condition to 158,920 TPY to limit potential fluoride emissions to approximately 2.94 tons per year.

6.5 SUMMARY OF BACT DETERMINATION

Emissions Unit	Pollutant(s)	Emission Limit(s)	BACT
038 - Granular MAP/DAP Plant	fluoride	0.037 lb/ton P_2O_5 input 0.98 lb/hr 2.94 TPY	Existing Scrubbing System: medium energy venturis (the Tower Venturi and Cooler Venturi), and cyclonic separator with chevron-type mist eliminator using recycled slurry as the scrubbing medium, adjusted for pH.

7. COMPLIANCE

The compliance methods are briefly summarized here. Emission testing shall be required for the Granular MAP/DAP Plant for fluorides initially and annually thereafter within the period May - October.

Compliance with the fluoride limits shall be in accordance with EPA Method 13A or 13B as contained in 40 CFR 60, Appendix A, or other Department approved methods.

8. DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Gerald Kissel, P.E., Air Permitting Supervisor
Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, FL 33619

Prepared September 10, 1999

Approved By:

W.C. Thomas, P.E.
District Air Administrator

Date:

D.E.R.
AUG 31 1999
SOUTHWEST DISTRICT
TAMPA

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)		
	)		
Florida Phosphate Council,	)	ASP No.	95-H-01
Petitioner.	)		

ORDER ON REQUEST
FOR
ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), Florida Phosphate Council, petitioned for approval to use an alternative analytical procedure for EPA Method 13B for the analysis of fluoride samples from phosphate fertilizer facilities.

Having considered Petitioner's written request and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. Petitioner is comprised of the following seven companies: CF Industries, Inc.; Cargill Fertilizer, Inc.; Farmland Hydro, L.P.; IMC-Agrico Company; Mulberry Phosphate, Inc.; PCS Phosphate-White Springs; and U.S. Agri-Chemicals.

2. On November 10, 1995, Petitioner requested guidance concerning the most appropriate means of obtaining Florida's approval of an alternative to the analytical procedure in EPA Method 13B for the analysis of fluoride samples from phosphate fertilizer facilities. [Exhibit 1]

3. After evaluating the request and scope of the associated data, the Department determined that it would be appropriate to consider granting approval to use an alternative analytical procedure for EPA Method 13B on an industry-wide basis through an Order pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.).

4. As justification for the use of the alternative analytical procedure, Petitioner stated, "The alternative method affects only the analytical portions of Method 13B and will not affect sample collection or sample recovery. Specifically, the alternative procedure eliminates the requirement to fuse a portion of the sample in sodium hydroxide and the requirement to distill the entire sample from sulfuric acid prior to analysis. The documentation presented herein demonstrates that the proposed method (without fusion and distillation) is as precise as the reference method (a positive bias). The positive bias associated with the proposed method is probably due to fluoride loss during the distillation step of the reference method." [Exhibit 2]

5. Petitioner further stated, "The potential disadvantages of the fusion and distillation steps, when not necessary, are a decrease in the precision of the analytical method and the potential for fluoride loss during the distillation step. Another disadvantage associated with the distillation step of the reference method is the potential danger associated with distilling from sulfuric acid at a temperature of 175 °F. If this potential danger can be eliminated without compromising the precision and accuracy of the analytical method, a major benefit would be realized." [Exhibit 3]

6. Petitioner further stated, "As fluorides present in samples collected from phosphate plants are soluble, the elimination of the distillation step will eliminate the possibility of low fluoride recovery and will provide for a more accurate determination of the fluoride emission rate from affected facilities. The proposed method will also improve the safety of the method by eliminating the sulfuric acid distillation step." [Exhibit 3]

7. The analysis of precision for all groups of samples summarized in Table 1 demonstrates that the variance of the proposed method (Method 13B without fusion and distillation) is only 3.6 percent greater than the variance to the reference method (Method 13B with fusion and distillation). The analysis of bias for all groups of samples summarized in Table 2 demonstrates that the test for all samples results in a mean for the proposed method which exceeds the mean of the reference method by 0.089 mg/l (total fluorides). [Exhibit 3]

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 62-297.620, F.A.C.

2. Pursuant to Rule 62-297.310(7), F.A.C., the Department may require Petitioner to conduct compliance tests that identify the nature and quantity of pollutant emission, if, after investigation, it is believed that any applicable emission standard or condition of the permits is being violated.

3. Petitioner has provided reasonable justification that the use of an alternative analytical procedure for EPA Method 13B to analyze fluoride samples will be adequate to verify compliance with the applicable standard.

ORDER

Having considered Petitioner's written request and supporting documentation, it is hereby ordered that:

1. Petitioner's request to use an alternative analytical procedure for EPA Method 13B (without fusion and distillation) to analyze fluoride samples for the purpose of determining the compliance status of the phosphate fertilizer facilities is granted;

2. The Department retains the right to require Petitioner to use EPA Method 13B (with fusion and distillation) to determine the compliance status of the phosphate fertilizer facilities, as per Rule 62-297.310(7), F.A.C., if after investigation, it is believed that the use of EPA Method 13B (with fusion and distillation) is necessary to assess the compliance status of the affected facilities; and,

3. Pursuant to Rule 62-297.310(8), F.A.C., Petitioner shall submit the compliance test report to the District Director of the appropriate Department District Office and to the Director of any Department approved local air program having jurisdiction within 45 days of completion of the test.

PETITION FOR ADMINISTRATIVE REVIEW

1. A person whose substantial interests are affected by the Department's decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, within 21 days of receipt of this Order. The petitioner shall mail a copy of the petition to the applicant 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, F.S.

2. The petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, and the Department File Number;

(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 each petitioner, if any;

(e) A statement of facts which each petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes each petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by each petitioner, stating precisely the action each petitioner wants the Department to take with respect to the Department's action or proposed action.

3. 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 Order. Persons whose substantial interests will be affected by any decision of the Department

with regard to the applicant have the right to petition to become a party to the proceeding. The petition must conform with the requirements specified above and be filed (received) within 21 days of receipt of this notice in the Office of General Counsel at 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. 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.

4. This Order constitutes final agency action unless a petition is filed in accordance with the above paragraphs. Upon timely filing of a petition, this Order will not be effective until further Order of the Department.

RIGHT TO APPEAL

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., 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, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000; 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 the Notice of Agency Action is filed with the Clerk of the Department.

DONE AND ORDERED this 8 day of Sept. 1996 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes

HOWARD L. RHODES
Director
Division of Air Resources Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(904) 488-0114

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that a true copy of the foregoing was mailed to Mr. Bruce D. DeGrove, Assistant Vice President of Regulatory Affairs; Florida Phosphate Council; 215 S. Monroe Street; Suite 703; Tallahassee, Florida 32301 on this 9th day of September 1996.

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.

Marsha Jane Wise 9/9/96
Clerk Date

Department of
Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

RECEIVED
AUG 31 1999
BUREAU OF AIR REGULATION

Mr. Steven J. Susick, P.E.
General Manager of Engineering & Technical Services
U.S. Agri-Chemicals Corp.
3225 County Road 630 West
Ft. Meade, FL 33841

August 25, 1999

Copy J.R. Original to USAC file.

Dear Mr. Susick:

Re: Air Construction Permit Application, Dated May 17, 1999
Project: Granular MAP/DAP Plant
DEP File No. 1050051-008-AC
Site Name: Ft. Meade Chemical Plant
Location: State Road 630, Ft. Meade, Polk County

In order to continue processing the application, the Department will need the following additional information pursuant to Rule 62-4.070(1), F.A.C.:

1. Please submit the following information regarding the MAP Plant test information you submitted in your August 20, 1999:

12/29/97 test

- copy of the official test report

other tests

- process rates during tests
- scrubber parameters during tests
- starting time and duration of each sampling run
- field data sheets and computations used to determine emissions
- sketch of duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including any upstream and downstream bends or other flow disturbances
- the number of points sampled and configuration and location of the sampling plane
- for each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point
- the type, manufacturer and configuration of the sampling equipment used

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- data related to the required calibration of the test equipment
- data on the identification, processing and weights of all filters used
- data on the types and amounts of any chemical solutions used
- data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test
- the names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report
- all measured and calculated data required to be determined by each applicable test procedure for each run
- the detailed calculations for one run that relate the collected data to the calculated emission rate
- the applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure
- a certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct

2. Please provide certification by a professional engineer registered in the State of Florida for the above information and the information in your August 20, 1999 letter.

"NOTICE: Pursuant to the provisions of Section 120.60, F.S. and Chapter 62-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department will issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered question will be submitted. If the response will require longer than 90 days to develop, an application for new construction should be withdrawn and resubmitted when completed information is available. Or for operating permits, you should develop a specific timetable for the submission of the requested information for Department review and consideration. Failure to comply with a timetable accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

Sincerely,

for

Gerald Kissel, P.E.
Air Permitting Supervisor

cc:
Mr. Al Linero, P.E., DARM

U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, FL 33841-9799
941 285 8121

Hand-delivered

US Agri-Chemicals
A Sinochem Company

D.E.R.
AUG 20 1999
SOUTHWEST DISTRICT
TAMPA

August 20, 1999

Kim → Give to Clair
cc JR.
J.K
File USAC

Mr. Jerry Kissel
FDEP, Southwest District
3804 Coconut Palm
Tampa, FL 33619-8318

RE: PSD Applicability Calculations for Particulate Matter
DEP File#: 1050051-008-AC

Dear Mr. Kissel,

As per our teleconference yesterday with Clair Fancy, attached is a copy of our stack study data for the Prilled MAP plant. It shows that the average performance for that plant was 3.7 lbs PM/hour. We have re-calculated the PSD significance level using 7,000 hours of operation as per your letter dated August 18, 1999. This results in a permit limit of 0.1862 #PM/tonMAP (based on 300,000 tpy MAP) or 9.31 #PM/hr (based on 50 tph MAP).

Please don't hesitate to call me at (941) 285-8121, extension 281, if you have any questions.

Thanks very much for your assistance.

Sincerely,

Steven J. Susick, P.E.
General Manager, Engineering Services

Post-it® Fax Note 7671	Date 8/25/99	# of pages ▶ 2
To Al Linero	From Eric Peterson	
Co./Dept.	Co. DEP-SWD	
Phone #	Phone # SC 512-1042 X112	
Fax #	Fax #	

FYI

PHOSPHATE FEEDS YOU

20-Aug-99

D.E.R.

AUG 20 1999

SOUTHWEST DISTRICT
TAMPA

USAC Prill MAP plant stack study summary

Date	Particulate emissions	
Unit	lbs /hr	
LIMIT	24	
12/12/96	1.78	
1/7/97	2.97	
1/14/97	2.40	
1/14/97	2.27	
1/15/97	3.06	
1/15/97	4.30	
2/25/97	3.96	
7/16/97	2.04	
7/23/97	14.14	
7/30/97	6.98	
12/29/97	2.04	official test
12/29/97	2.38	official test
12/29/97	2.34	official test
2/24/98	1.20	

2.2 avg

Average 3.70

PSD Significance

15

3.7 #PM/hr * 7,000 hr/yr / 2,000 #/ton = 12.95 tpy + 14.99 tpy = 27.94 tpy

VT ~~29.37~~ tpy * 2,000 #/ton / 300,000 tMAP = ~~0.1862~~ #PM/tMAP * 50 tph = ~~9.31~~ #PM/hr 8.4

27.94 based on 6,000 .168

permit gives them .168

350,000

- field data sheets
- calculations
- calibrations
- testers
- Scrubber parameters
- "official" test report
- production rates
- P.E. seal

Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

Mr. Steven J. Susick, P.E.
General Manager of Engineering & Technical Services
U.S. Agri-Chemicals Corp.
3225 County Road 630 West
Ft. Meade, FL 33841

August 18, 1999

RECEIVED
AUG 23 1999
BUREAU OF AIR REGULATION

Dear Mr. Susick:

Re: Air Construction Permit Application, Dated May 17, 1999
Project: Granular MAP/DAP Plant
DEP File No. 1050051-008-AC
Site Name: Ft. Meade Chemical Plant
Location: State Road 630, Ft. Meade, Polk County

The attached memo from Joseph Kahn, P.E., of the Division of Air Resource Management's New Source Review Section provides the Department's determination of PSD applicability for the referenced project. The memo indicates that the past actual PM /PM_{10} emissions are about 1 TPY, based on the prilled MAP plant's actual hours of operation in 1997 and 1998. However, shortly after the plant began normal operation, it stopped operating. In order to estimate the plant's past annual emissions as if it had operated at a "normally" throughout the year, the Southwest District will allow the use of 7,000 annual hours of operation in the calculation of past actual emissions. This establishes the past actual PM/PM_{10} emissions for the PSD applicability determination at 7.7 TPY. Please let us know how you wish to proceed.

Please note that this deviation from the recommendations of DARM and the EPA is not to be construed as precedent in future PSD determinations. The unique circumstances of this project, in the District's thinking, warrant the use of the imputed actual hours of operation in the calculation of past actual emissions. This does not represent Department or EPA policy.

* * * * * * * * * * * * *

The Department's proposed agency action will become final upon expiration of the petition period described below unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed agency action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the

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Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within twenty-one days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within twenty-one days of publication of the public notice or within twenty-one days of receipt of this notice, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within twenty-one days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that 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 such final

decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

NOTICE OF APPEAL RIGHTS

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tampa, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

J. Kahn, P.E.

FOR W.C. Thomas, P.E.
District Air Program Administrator
Southwest District

Attachment

cc:
Mr. Al Linero, P.E., DARM w/o attachment
Mr. Joseph Kahn, P.E. DARM w/o attachment
Mr. John B. Koogler, Ph.D., P.E., Kooger & Associates

INTEROFFICE MEMORANDUM

Date: 13-Aug-1999 12:00pm
From: Joseph Kahn TAL
KAHN_J
Dept: Air Resources Management
Tel No: 850/921-9519

To: Gerald Kissel TPA (KISSEL_G @ A1 @ TPA1)
To: Eric Peterson TPA (PETERSON_E @ A1 @ TPA1)

Subject: US Agri-Chem PSD Applicability

Gentlemen,

Clair asked me to send you the attached memo regarding the PSD applicability determination for US Agri-Chem. Please let me know if you have any questions.

-Joe

Memorandum

Florida Department of Environmental Protection

To: Al Linero, P.E.
Administrator, New Source Review Section

From: Joseph Kahn, P.E.
New Source Review Section

Date: August 11, 1999

Re: PSD Applicability for US Agri-Chem, 1050051-008-AC

I have reviewed the information from the Southwest District office regarding the issue of past actual emissions for determining PSD applicability for a modification of a prilled MAP plant. In general, the district staff questioned whether the source had begun normal operations and what the past actual emissions were for PSD applicability purposes. I discussed these particular issues with Jerry Kissel and Eric Peterson of the SWD, Jim Little of EPA Region 4, and John Reynolds. I spoke today with John Koogler who discussed some of the history of the source and emphasized that the applicant does not believe the source had begun normal operations, and was seeking relief from strictly using the emission rate from the compliance test and actual operating hours to calculate actual emissions. I also solicited opinions from Jeff Koerner and Mike Halpin about the general issue of what should be considered to be the commencement of normal operations, and we are in agreement about this issue.

My conclusion is that US Agri-Chem did begin normal operations, and that past actual emissions of PM are about one ton per year. PSD applicability should be made comparing past actual emissions of 1 TPY to future potential emissions, and if significant, the proposed project will be subject to PSD. The district staff should consider whether the past emissions are representative of PM or PM_{10} to determine the appropriate significance level. In the absence of any particle size distribution information for the existing MAP process, it seems appropriate to presume that all of the PM is PM_{10}, and use the significance criteria of 15 TPY. A similar comparison of past actual to future potential emissions should be made for fluorides.

Memorandum

Florida Department of Environmental Protection

To: Al Linero, P.E.
Administrator, New Source Review Section

From: Joseph Kahn, P.E.
New Source Review Section

Date: August 11, 1999

Re: PSD Applicability for US Agri-Chem, 1050051-008-AC

I have reviewed the information from the Southwest District office regarding the issue of past actual emissions for determining PSD applicability for a modification of a prilled MAP plant. In general, the district staff questioned whether the source had begun normal operations and what the past actual emissions were for PSD applicability purposes. I discussed these particular issues with Jerry Kissel and Eric Peterson of the SWD, Jim Little of EPA Region 4, and John Reynolds. I spoke today with John Koogler who discussed some of the history of the source and emphasized that the applicant does not believe the source had begun normal operations, and was seeking relief from strictly using the emission rate from the compliance test and actual operating hours to calculate actual emissions. I also solicited opinions from Jeff Koerner and Mike Halpin about the general issue of what should be considered to be the commencement of normal operations, and we are in agreement about this issue.

My conclusion is that US Agri-Chem did begin normal operations, and that past actual emissions of PM are about one ton per year. PSD applicability should be made comparing past actual emissions of 1 TPY to future potential emissions, and if significant, the proposed project will be subject to PSD. The district staff should consider whether the past emissions are representative of PM or PM_{10} to determine the appropriate significance level. In the absence of any particle size distribution information for the existing MAP process, it seems appropriate to presume that all of the PM is PM_{10}, and use the significance criteria of 15 TPY. A similar comparison of past actual to future potential emissions should be made for fluorides.

August 10, 1999

RECEIVED
AUG 12 1999
BUREAU OF AIR REGULATION

To: Joe Kahn

From: Jerry Kissel

Re: U.S. Agri-Chem application 1050051-008AC

cc: S. Susick, P.E., General Manager, U.S. Agri-Chem
J. Koogler, P.E.

Please consider the following factors in your PSD determination:

1) U.S. Agri-Chem, in a 7/23/99 letter to Eric Peterson referenced the "actual to allowable" determination as permissible, as "confirmed by the Department's Clair Fancy...". I don't believe it is valid to give that statement much standing, since it was based on a few minutes of lunchtime conversation at an AWMA meeting.

2) We deferred the PM vs. PM_{10} issue until later, but it may pay to deal with it in your determination. As the graph below shows, a venturi scrubber is over 99.9% efficient for PM_{10} at about 15 inches of H_2O or greater pressure drop. This indicates that in this case, since the normal pressure drop range was reported to be 15 to 24 inches of H_2O, that essentially all the PM emitted is PM_{10}. If that's the case, then the increment of 25 tpy used in my previous letter, should be the PM_{10} increment of 15 tpy, etc.

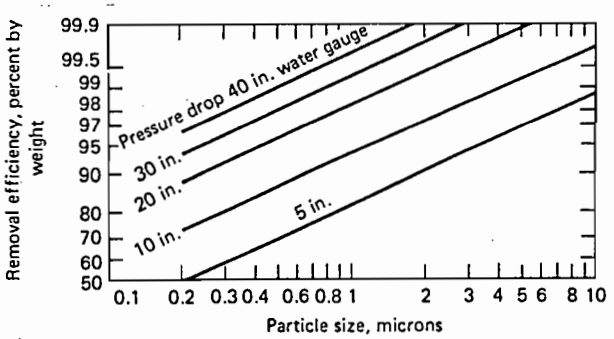

Figure 5-26 Relationship between fractional collection efficiency and particle size in venturi scrubbers. (SOURCE: *Air Pollution Manual.* Part II—"Control Equipment." Detroit, Mich.: American Industrial Hygiene Assoc., 1968.)

3) If this unit had operated, say 10 hours instead of about 2,000 hours would we then let "actual equal allowable"? If so this leads to an illogical result, in the sense that as hours get less and less, actuals get smaller and smaller until at some point they are unusable and can be set to allowables; then they jump from a very small number to a very large number. This discontinuity is an argument for the approach of using "imputed actuals," like at the 7,000 hours in my previous letter.

U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, FL 33841-9799
941 285 8121

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JUL 26 1999
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US Agri-Chemicals

A Sinochem Company

Mr. Eric Peterson
Air Permitting Engineer
FDEP, Southwest District
3804 Coconut Palm
Tampa, FL 33619-8318

July 23, 1999

RE: Ft. Meade Chemical Plant, 1050051-003-AV
MAP/DAP Granular Fertilizer, File No. 1050051-008-AC

Dear Mr. Peterson:

The following responses are provided in the numerical order of your letter dated 7/15/99.

1. As reported to the Department, the MAP prill plant operated approximately 1,000 hours in 1997 and 1998 (11% of the permitted operating hours). Also, the one and only compliance stack test conducted was when the plant operated at approximately 40 TPH (62% of the rated capacity). These facts clearly show that the plant has not had 2 years of normal operation. Therefore, the rule allows use of permitted emissions as actual emissions for PSD netting. This conclusion was confirmed by the Department's Clair Fancy, based on the above information, during a conversation involving Mr. Jerry Kissel of DEP and Viet Ta of USAC at the Air & Waste Management meeting on 7/16/99.

2. The expanded BACT analyses for each option prepared by Dr. J. Koogler are attached.

3. The proposed normal pressure drop across the RG ammonia absorber and liquid flowrate ranges are:

pressure drop "H_20	Flowrate GPM
4 to 10	200 to 350

Attached, as may be required, is the P.E. certification. Please contact Mr. Ronald L. Brunk at (941) 285-7123, extension 279, if you have any questions.

Sincerely,

Steven J. Susick, P.E., General Manager
Engineering & Technical Services

xc: J. Koogler
Mr. Clair Fancy, cover letter only
Mr. Jerry Kissel, cover letter only

PHOSPHATE FEEDS YOU

July 23, 1999

TO: Al Linero

FROM: Jerry Kissel

RE: US Agri-Chem Application 1050051-008-AC

This memo requests an opinion from your office on the use of the term "Actual Emissions" regarding PSD applicability in this case. Actual Emissions are defined in 62-210.200 as:

(a) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of the normal operation of the emissions unit. The Department may allow the use of a different time period upon a determination that it is more representative of the normal operation of the emissions unit. Actual emissions shall be calculated using the emissions unit's actual operating hours, production rates and types of materials processed, stored or combusted during the selected time period.

(b) The Department may presume that unit-specific allowable emissions for an emissions unit are equivalent to the actual emissions of the emissions unit provided that for any regulated air pollutant, such unit specific allowable emissions limits are federally enforceable.

(c) For any emissions unit which has not begun normal operations on a particular date, actual emissions shall equal the potential emissions of the emissions unit on that date.

In this case, a prilled MAP facility was constructed in 1996-97 and tested on December 30, 1997. The current application is to modify that plant by adding additional equipment to produce granular MAP, utilizing about 25% of the existing prilled MAP equipment. Thus the modified plant will only be able to produce one or the other product, because of the common equipment.

The prilled MAP plant operated for 909 hours in the fourth quarter of 1997 and 981 hours in the first quarter of 1998. It has not operated since, for market reasons.

The plant emits fluorides and PM, but the only issue regarding PSD applicability is PM. The initial (and only) test showed emissions of 2.2lbs/hr of PM (this memo requests an opinion re PM – we can add the refinement re PM10 later in this office) at a production rate of 37.2 tons/hr. At the hours operated in 1997-98, this yields:

Basis? only the Product loadout and the existing scrubber are to be used in the new plant.

John - You were out when this came in + planned to be out 2 more weeks. I assigned this to Joe. Let him handle it. This is for your info as you requested.

8/4

JOE,
AL SAID IT WOULD BE
OK. TO PROVIDE YOU WITH
MY COMMENTS. THE 2STPY IS
DEFINITELY INCORRECT AS
THE DETERMINING
THRESHOLD. JR

Actual PM Emissions[1]	Actual PM Emissions at Representative Normal Operations[2]	Setting Actuals Equal to Allowables[3]
1.04 tpy	7.7 tpy	45-105 tpy

Adding 25 tpy (the PSD-significant level) to each of the above, yields:

26 tpy	32.7 tpy	70-130 tpy

Any allowable emissions less than the amounts shown in the second line above would not trigger PSD. The new Granular MAP plant has requested allowable emissions of 60 tpy Thus any figure in the range of 70-130 tpy under "Setting Actuals Equal to Allowables" results in allowable emissions below the PSD-significance threshold. Under the first two columns, however, the requested allowable of 60 tpy would trigger PSD.

In the context of the 62-210 definition above, my position to date has been that the compliance test was conducted under conditions which were representative of normal operation, i.e., if one had to choose between whether the test was conducted under conditions more representative of normal operation than abnormal operation, I would say that they were more representative of normal operation. The plant may not have been in normal operation regarding hours per year, but it seems reasonable to allow the adjustment shown in the second column above, under part (a) of the above rule. Thus, I have suggested to the applicant that they might amend their requested allowable to 32.6 tpy to avoid PSD. Note that at this level, the unit would be allowed hourly emissions of 10.9 lbs/hr[4], an emission rate approximately 5 times the rate experienced during the test.

The applicant would not accept this suggestion, whereupon I told them that rather than continuing to debate the issue of "setting actuals to allowables", I thought it would be appropriate to get an opinion from Tallahassee.

[1]Average for 1997-98; [(909+981)/2]hrs x 2.2 lbs/hr x tons/2000 lbs = 1.04tpy

[2]Using 7,000 hrs/yr as representative of normal operations; 7,000 x 2.2/2000 = 7.7
7,000 is an estimate at this point; it may vary, but variations have little effect on the analysis.

[3]Allowable emissions for the prilled MAP plant are 105 tpy, at permitted production of 60 tons/hr and 8,760 hrs/yr. It is possible that it would not be considered legitimate to use the entire 105tpy figure from the prilled MAP plant, since the plant was only able to operate at 37.2tph (vs the 60 tph allowed) during the compliance test, and also since the new granular MAP plant is proposed to operate at 50tph for 6,000 hrs/yr. Thus the most conservative adjustment to the allowable of 105 tpy yields:
(37.2tph/60tph) x (6,000hrs/8,760hrs) x 105tpy = 45tpy.

[4](32.6 tons/yr x 2000lbs/ton)/6,000 requested hours = 10.9 lbs/hr

c: J. Koogler
Viet Ta

usg72399

INTEROFFICE MEMORANDUM

Sensitivity: COMPANY CONFIDENTIAL

Date: 01-Jul-1999 11:24am
From: John Reynolds TAL
REYNOLDS_J
Dept: Air Resources Management
Tel No: 850/921-9536

To: Alvaro Linero TAL (LINERO_A)
To: Gerald Kissel TPA (KISSEL_G @ A1 @ TPA1)
To: Eric Peterson TPA (PETERSON_E @ A1 @ TPA1)

Subject: Your E-mail re PSD Applicability for US AgriChem

There isn't any doubt about PSD applicability for the DAP Plant. Actual test results were 2.2 lbs/hr PM/PM10 vs. 20 lbs/hr proposed = +17.8 lbs/hr X 6,000 hr/yr/2,000 lbs/ton = +53.4 TPY PM/PM10. Even if they retested at 60 TPH, the increase would be significant. The physical changes required for conversion to a new product (DAP vs. MAP) and the associated increases in emissions will subject them to full.PSD review. The processes are fundamentally different in that DAP requires acid scrubbing due to the higher ammoniation and this requires secondary pond water scrubbing for fluoride control. To allow a DAP to operate without packed pond water scrubbing would amount to a substantial relaxation of requirements that have been in place in Florida since the 1960s.

U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, FL 33841-9799
941 285 8121

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US Agri-Chemicals

A Sinochem Company

July 23, 1999

Mr. Eric Peterson
Air Permitting Engineer
FDEP, Southwest District
3804 Coconut Palm
Tampa, FL 33619-8318

RE: Ft. Meade Chemical Plant, 1050051-003-AV
MAP/DAP Granular Fertilizer, File No. 1050051-008-AC

Dear Mr. Peterson:

The following responses are provided in the numerical order of your letter dated 7/15/99.

1. As reported to the Department, the MAP prill plant operated approximately 1,000 hours in 1997 and 1998 (11% of the permitted operating hours). Also, the one and only compliance stack test conducted was when the plant operated at approximately 40 TPH (62% of the rated capacity). These facts clearly show that the plant has not had 2 years of normal operation. Therefore, the rule allows use of permitted emissions as actual emissions for PSD netting. This conclusion was confirmed by the Department's Clair Fancy, based on the above information, during a conversation involving Mr. Jerry Kissel of DEP and Viet Ta of USAC at the Air & Waste Management meeting on 7/16/99.

2. The expanded BACT analyses for each option prepared by Dr. J. Koogler are attached.

3. The proposed normal pressure drop across the RG ammonia absorber and liquid flowrate ranges are:

pressure drop "H_20	Flowrate GPM
4 to 10	200 to 350

Attached, as may be required, is the P.E. certification. Please contact Mr. Ronald L. Brunk at (941) 285-7123, extension 279, if you have any questions.

Sincerely,

Steven J. Susick, P.E., General Manager
Engineering & Technical Services

xc: J. Koogler
Mr. Clair Fancy, cover letter only
Mr. Jerry Kissel, cover letter only

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U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, FL 33841-9799
941 285 8121

US
Agri-Chemicals

A Sinochem Company

Mr. Jerry Kissel, P.E.
Air Permitting Engineer Supervisor
FDEP, Southwest District
3804 Coconut Palm
Tampa, FL 33619-8318

June 21, 1999

D.E.R.

JUN 22 1999

SOUTHWEST DISTRICT
TAMPA

RE: Ft. Meade Chemical Plant, 1050051-003-AV
MAP Plant, EU ID No. 032
MAP/DAP Granular Fertilizer Application submitted on 5/18/99

Dear Mr. Kissel:

Based on recent verbal communications with the Department representatives regarding the referenced application, we understand the following:

1. The proposed project is not subject to PSD New Source Review for any pollutant.

2. The fluorides emission limits for MAP and DAP are subject to different rules. Specifically, the limit for DAP is 0.06 lbs/ton of P_2O_5 input (40cfr60.222(a) (NSPS- Subpart V) & 62-296.403(1)(f), F.A.C.) and the limit for MAP is determined by State BACT (62-296.403(1)(i), F.A.C.)

3. USAC needs to submit a supplement to the application to address issues in item 2 above.

Proposed fluorides emission limits for DAP plant: Although the DAP plant is subject to 0.06 lbs F/ton P_2O_5, we request that the emission limit be set at 0.037 lbs F/ton P_2O_5 input and 2.94 TPY in order to stay below PSD significant.

BACT determination for MAP granular plant: Since this is a modification to the existing MAP prill plant with an existing scrubber system, BACT options are:

A. Add a packed tail gas scrubber in between the cyclonic separator and the stack. The cost of this option and expected emissions reduction is shown in the attached study by Koogler & Associates. This option has been updated by Koogler (also attached) and is rejected as it is not economically feasible at $218,775 /ton F removed.

B. Modify the existing scrubber system to convert the cyclonic separator into a packed scrubber. The cost of this option and expected emissions reduction is shown in the attached study by Mustang Tampa, Inc. (formerly Raytheon Engineers and Constructors). It was also rejected as it is not economically feasible at $157,977 /ton F removed.

PHOSPHATE FEEDS YOU

C. Modify the existing scrubber system to allow adjustment of the pH of the scrubbing liquor. This option is selected because it will result in emisions of 0.037 lbs F/ton P_2O_5 input, which is less than current BACT of 0.041.

Attached, as may be required, is the P.E. certification.

Please contact Mr. Ronald L. Brunk at (941) 285-7123, extension 279, if you have any questions.

Sincerely,

Steven J. Susick, P.E., General Manager
Engineering & Technical Services

xc: J. Koogler
A. Linero

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 173-99-01

June 21, 1999

Mr. Eric Peterson, P.E.
Air Permitting Engineer
Florida Department of
Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619-8318

Subject: Letter of Certification
USAC Ft. Meade Chemical Plant
Permit 1040041-003-AV
MAP Plant, EU I.D. No. 032
MAP/DAP Granular Fertilizer Project
FDEP File No. 1050051-008-AC

Dear Mr. Peterson:

As Engineer of Record for the referenced USAC MAP/DAP granulation project, I have reviewed the following documents prepared in response to your letter dated June 15, 1999:

1. Letter to you from Mr. Steve Susick of USAC dated June 21, 1999, responding to the eight issues raised in your June 15, 1999, letter.

2. Letter to Jerry Kissel from Mr. Steve Susick dated June 21, 1999, addressing a BACT cost analysis for additional fluoride control on the subject granular MAP/DAP plant.

3. The detailed response to Issue No. 5 raised in your June 15, 1999, letter prepared by the project designer, Mustang Tampa, Inc.

4. The detailed description of BACT Alternative No. 2 (the conversion of the existing cyclonic separator following the tower and cooler venturi scrubbers to a packed scrubber) prepared by Mustang Tampa, Inc. and the associated cost analysis.

5. The detailed description of the proposed control air pollutant control system prepared by Mustang Tampa, Inc.

Additionally, I have updated my cost estimate for BACT Alternative No. 1 (the addition of a separate packed scrubber following the existing venturi/cyclonic separator system) originally prepared on March 22, 1996.

Based on my review, I certify, to the best of my knowledge, that there is reasonable assurance the air pollutant emission unit and the air pollution control equipment described herein, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in Florida statutes and rules of the Department. Furthermore, I certify that, to the best of my knowledge, the emission estimates reported or relied upon on these documents are true, accurate and complete and are based on reasonable techniques available for calculating emissions.

If you have any questions regarding matters related to this project, please do not hesitate to contact me at 352-377-5822.

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:wa

c: Mr. Steve Susick, USAC

22 MAR 96

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
904/377-5822 • FAX 377-7158

KA 173-94-04
March 22, 1996

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

Subject: Prilled MAP Plant BACT Determination
US Agri-Chemicals Corporation
Permit No. PSD-FL-222, AC53-260190

Dear Mr. Linero:

This is in response to your letter dated March 4, 1996 regarding the BACT determination for the above referenced project.

The design engineers, Jacobs Engineering Group, Inc., have identified a scrubbing system for the proposed prilled MAP plant consisting of two venturi scrubbers in parallel, followed by a cyclonic separator. The scrubbing medium will be recirculated water. This option, discussed in our letter to the Department dated February 15, 1996, represents the optimum scrubber design for control of fluorides from the proposed plant combined with on-line reliability. The resulting estimated cost of control, based on recent additional information, is $6308 per ton of fluorides removed.

The overall design system efficiency for fluorides, associated with the proposed design of the process and scrubbing system combined, is about 99.95 percent. However, in response to your suggestion, a packed scrubber to increase the projected fluoride removal efficiency for the proposed prilled MAP plant, has been evaluated.

Jacobs indicated that a packed tower alone would not be technically feasible for control of fluorides as the particulate loading from the process would result in excessive scrubber plugging. However, another option would be to add a packed tower in series after most of the particulates have been removed by the scrubbing system proposed by Jacobs. The installed cost of a packed tower is estimated at $950,000, or about half again of the cost of the proposed venturi scrubber system. Assuming that the operating and maintenance costs would also be halved (conservative estimate), the total annual cost of that unit would be half again that of the venturi scrubber system; about $275,000 per year. The annual cost for a packed cross-flow scrubber would be higher as the equipment cost would be much higher than that for a packed tower.

Jacobs indicated that even with an infinite number of transfer units, only an additional 0.51 lbF/hr (2.3 tpy at 8760 hrs/yr) could be removed due to the equilibrium vapor pressure of the fluorides in the scrubbing medium. This would mean an incremental control cost of about $125,000 per ton of fluorides removed for the additional packed scrubber. Obviously, this incremental cost is orders of magnitude above typical BACT control cost criteria.

Also, this cost estimate does not take into consideration the usual particulate matter related maintenance problems associated with packed scrubbers, nor the loss of production associated with down time. This MAP manufacturing process generates fine particulates which would cause chronic maintenance problems for packed scrubbers. The phosphate industry in general is very concerned about the on-line reliability and maintenance intensive aspects of packed scrubbers in such applications. Equipment down time significantly affects product costs. This is a sensitive issue which has to be considered in determining the BACT. It would not be prudent to install a high efficiency but high maintenance/low reliability oriented pollution control equipment. A situation, where excessive time is spent keeping the air pollution control equipment working properly rather than producing MAP, would not be economically viable.

Another alternative to improve fluorides removal, which is not viable for this project, is the use of once-through fresh water or treated water as the scrubbing medium. As discussed previously with FDEP staff, fresh water cannot be used due to stringent water use practices pursuant to an agreement with the South West Florida Water Management District and, further, additional fresh water use will adversely affect the plant's water balance. Regarding treated water, an applicant for a granular MAP plant recently submitted to FDEP a water treatment system cost estimate (using lime treatment and a dedicated pond) in excess of $70,000 per ton of fluoride removed.

Another consideration for determining what is reasonable as BACT is the fact that the proposed emission limit of 0.0417 lbsF/ton P2O5 is significantly below the proposed MACT standard of 0.058 lbF/ton P2O5; and, EPA expects MACT to be more stringent than BACT. FDEP should consider a BACT which is in line with, rather than more stringent than, a corresponding MACT.

Furthermore, it should be noted that there are no ambient air impact-related benefits to be gained by additional extravagant expenses on control equipment for fluorides. As you are well aware, there are no ambient air quality standards for fluorides and there are no health or welfare related concerns on the part of EPA or FDEP associated with the proposed project at an emissions level of 1.27 lbsF/hr.

For all the reasons mentioned above, FDEP should approve the 1.27 lbF/hr emission limit proposed by USAC, consistent with BACT criteria, using two venturi scrubbers in parallel, followed by a cyclonic separator.

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

Very truly yours,

KOOGLER & ASSOCIATES

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

JBK:par
Enc.

c: R. Brunk, USAC
B. Thomas, FDEP, SW District

BACT CALCULATIONS

The following calculations indicate how the costs associated with fluoride control were estimated.

PROPOSED SCRUBBING SYSTEM

MAP Plant Production Rate	:	60 tph Prilled MAP; 30 tph P2O5
P2O5 Feed Rate	:	30.6 tph P2O5 input
Fluorides input	:	83 lbF/ton P2O5
Water makeup	:	32 gpm
Fan	:	617 BHP
Pump	:	50 BHP
Gaseous fluorides to scrubber	:	5.58 lbs/hr
Particulate fluorides to scrubber	:	15.75 lbs/hr
Total fluorides to scrubber	:	21.33 lbs/hr
Gaseous fluorides to stack	:	0.76 lb/hr
Particulate fluorides to stack	:	0.51 lb/hr
Total fluorides to stack	:	1.27 lbs/hr; 0.0417 lb/ton P2O5 input; 5.6 tpy
Total fluorides removed by scrubber	:	20.1 lbs/hr; 87.9 tpy

Fluorides Control Efficiencies

Scrubber F eff. = (21.33 lb/hr - 1.27 lb/hr)/21.33 lb/hr
= 94.05 percent

Overall Plant F eff. = ((83 lb/ton P2O5 x 30.6 tph P2O5) - 1.27)/(83 lb/ton P2O5 x 30.6 tph P2O5)
= 99.95 percent

The following estimates pertain to the proposed venturi scrubbing system.

Fixed Capital Costs

Equipment Capital Costs = $495,000

Total Installed Cost = $1,720,000

Operation and Maintenance Costs

Operating Costs:
Electricity = (617 + 50)BHP x 0.746 kw/hp x 8760 hrs/yr x $0.059/kw
= $257,170

Water = 32 gpm x 60 min/hr x 8760 hrs/yr x $0.20/1000 gals
= $3,364

Total operating costs = $260,534

KOOGLER & ASSOCIATES

Maintenance Costs:		
Operating labor	=	2 hrs/shift x shift/8 hrs x 8760 hrs/yr x $12.96/hr
	=	$28,382
Supervisory labor	=	$28,382 x 0.15 (EPA factor)
	=	$4,257
Maintenance labor	=	1 hr/shift x shift/8 hrs x 8760 hrs/yr x $14.26/hr
	=	$15,615
Maintenance materials	=	$15,615 x 1.0 (EPA factor)
	=	$15,615
Total maintenance costs	=	$63,869
Total annual O&M costs	=	$260,534 + $63,869
	=	$324,403

Indirect Costs

Overhead	=	$63,869 x 0.6 (EPA factor)
	=	$38,321
Administration	=	$495,000 x 1.91 (EPA factor) x 0.02 (EPA factor)
	=	$18,909
Insurance	=	$495,000 x 1.91 (EPA factor) x 0.01 (EPA factor)
	=	$9,455
Property tax	=	$495,000 x 1.91 (EPA factor) x 0.01 (EPA factor)
	=	$9,455
Capital recovery	=	$495,000 x 1.91 (EPA factor) x 0.1628 (EPA factor)
	=	$153,919
Total indirect costs	=	$38,321 + $18,909 + $9,455 + $9,455 + $153,919
	=	$230,059

Total annual costs	=	$230,059 + $324,403
	=	$554,462
Annual cost of control	=	$554,462/87.9 tpyF
	=	$6308/ton F removed

ADDITIONAL SCRUBBER

The following analysis addresses the incremental costs for removal of fluorides by adding a packed scrubber to the above discussed arrangement.

Additional capital cost	=	$950,000
Additional annual cost	=	$554,462/2
	=	$277,231
Additional F removed	=	0.51 lb/hr x 8760 hrs/yr x ton/2000 lbs
	=	2.23 tpy

The overall cost of an arrangement of the proposed venturi scrubbing system followed by a packed scrubber can be estimated as follows:

Overall total cost	=	($554,462 + $277,231)/(87.9 + 2.23)tpyF
	=	$9228/ton F removed

The incremental cost of fluorides control can be estimated as follows:

Cost of added control	=	$277,231/2.23 tpyF
	=	$124,319/ton additional F removed

It is apparent that while the proposed venturi scrubbing system cost is already in the upper range of BACT cost criteria, the additional packed scrubber cost is well beyond the range and is not cost effective. Too large a cost is involved for too small a quantity of emission reduction.

KOOGLER & ASSOCIATES
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UPDATE OF MARCH 22, 1996, BACT ANALYSIS OF A PACKED SCRUBBER FOR FLUORIDE CONTROL ON A MAP/DAP PLANT

STATEMENT OF CONTROL TECHNOLOGY

Total gaseous and water soluble fluoride emissions from a 50 ton per hour (product) granular MAP/DAP plant will be controlled to 0.037 lb F per ton of P_2O_5 (in product) or 0.98 pounds per hour and 2.94 tons per year (@ 6000 hours per year). The control technology (as described elsewhere herein) consists of a scrubber system with pH adjusted scrubbing liquor. The tower venturi scrubber controls emissions (fluoride and PM) from the granulator, reactor, dryer and product handling equipment. The cooler venturi scrubber controls emissions from the product cooler. The two venturi scrubbers discharge to a common cyclonic separator.

Further BACT options considered for fluorides include:

1. The addition of a packed scrubber using pond water following the cyclonic separator. This option was previously addressed by letter from Koogler & Associates to FDEP (dated March 22, 1996) during the permitting of the prilled MAP plant. This analysis is updated in following sections.

2. The conversion of the cyclonic separator to a packed scrubber. This cost analysis was conducted by Mustang Tampa, Inc. and is presented as a separate document attached hereto.

COST/EFFECTIVENESS ANALYSIS OF AN ADD-ON PACKED SCRUBBER

Refer to attached Koogler & Associates letter to FDEP dated March 22, 1996, for the basis of costs. It should be noted that in the March 22, 1996, BACT analysis, the cost of supplying pond water to the packed scrubber was not considered. In the following update, the pump and piping costs developed by Mustang Tampa, Inc. were incorporated.

The March 22, 1996, BACT analysis was based on a production rate of 60 tons per hour of prilled MAP and a scrubber inlet fluoride loading of 1.27 pounds per hour. The analysis states that even with an infinite number of transfer units, only an additional 0.51 pounds per hour of fluoride could be removed (because of the vapor pressure of fluoride in the pond water). The BACT analysis (Option No. 2) by Mustang Tampa, Inc. states the limiting fluoride concentration in the stack gas (following a pond water scrubber) is 0.035 mg F/acf or 0.42 pounds of fluoride per hour. Given an inlet fluoride loading of 0.98 pounds per hour, the amount of fluoride removed by the packed scrubber will be (0.98 - 0.42) 0.56 pounds per hour or 1.68 tons per year.

BACT CALCULATIONS

The following estimates pertain to the proposed add-on packed scrubbing system.

Fixed Capital Costs

Installed scrubber cost	=	$ 950,000 (see 3/22/96 K&A letter)
Pond water pumps and piping	=	400,000 (from Mustang Tampa, Inc.)
Total Installed Cost	=	$1,350,000

Operation and Maintenance Costs

Operating Costs:

Electricity	=	90 BHP x 0.746 kw/hp x 6000 hrs/yr x $0.059/kw
	=	$23,768

Maintenance Costs:

Operating labor	=	2 hrs/shift x shift/8 hrs x 6000 hrs/yr x $12.96/hr
	=	$19,440
Supervisory labor	=	$19,440 x 0.15 (EPA factor)
	=	$2,916
Maintenance labor	=	1 hr/shift x shift/8 hrs x 6000 hrs/yr x $14.26/hr
	=	$10,695
Maintenance materials	=	$10,695 x 1.0 (EPA factor)
	=	$10,695
Total Maintenance Costs	=	$43,746
Total Annual O&M Costs	=	$23,768 + $43,746
	=	$67,514

Indirect Costs

Overhead	=	$43,746 x 0.6 (EPA factor)
	=	$26,248
Administration	=	$1,350,000
		x 0.02 (EPA factor)
	=	$27,000
Insurance	=	$1,350,000
		x 0.01 (EPA factor)
	=	$13,500
Property tax	=	$1,350,000
		x 0.01 (EPA factor)
	=	$13,500
Capital recovery	=	$1,350,000
		x 0.1628 (EPA factor)
	=	$219,780
Total Indirect Costs	=	$300,028
Total Annual Costs	=	$67,514 + $300,028
	=	$367,542
Annual Cost of Control	=	$367,542/1.68 tpy F
	=	$218,775/ton F

It is apparent that the additional packed scrubber cost is well beyond the BACT cost range and is not cost effective. Too large a cost is involved for too small a quantity of emission reduction.

Revised 6-21-99

PROCESS DESCRIPTION OF MODIFIED SCRUBBER SYSTEM TO CONVERT THE EXISTING CYCLONIC SEPARATOR INTO A PACKED SCRUBBER

Venturi Scrubber System:

The existing scrubber system consists of two venturi scrubbers connected to a cyclonic separator containing a chevron type mist eliminator.

The existing venturi circulation pumps will take suction from a new circulation tank. Approximately 1550 gpm will be circulated to the two venturi scrubbers.

The circulation rate to the Cooler Venturi will be 250-300 gpm and the remainder (800-1000 gpm) to the Tower Venturi.

The bottom of each venturi will be equipped with an enlarged drain nozzle that will return the water to the new circulation tank through sealed dip legs into the bottom of the tank.

The recirculated solution will contain the recovered dust, fluorides and ammonia. The level in this tank will be controlled by a level control valve that will transfer the excess solution to the new ammonia absorber.

The makeup water to the venturi side will be pond water from the packed scrubber section.

Cyclonic Separator:

The tangential inlets to the cyclonic separator will be enlarged to minimize the pressure drop at this location and minimize the venturi water carryover into the pond water side. It is expected to save 1-2″ W.C. of pressure drop. The water sprays at the inlets will be eliminated.

The cyclonic separator will be converted into a packed scrubber using once through acidic pond water as the scrubbing medium. This will include the addition of a packing support grid, 10 foot of packing, a packing bed limiter and a weir type liquid distributor. The existing core buster will be removed and the chevron mist eliminator will remain as is.

Approximately 1200 gpm of acidic pond water at 90°F will be pumped from the existing pond with a new vertical pump through a new 8″ FRP pipeline to the existing scrubber. A

new horizontal pump will receive the water from the existing scrubber and return it to the pond through another 8" FRP pipeline.

The exit gases from both venturi scrubbers will enter the bottom of the packed scrubber where it will be countercurrently contacted with the pond water. The cooling effect on the gas stream will cause condensation into the pond water. However, the quantity of water condensed will be nearly equal to the makeup water required in the process therefore no major change to the overall water balance is expected.

Some pond water leaving the packed scrubber will be sent to the venturi water circulation tank as makeup and the remaining water will be pumped to the pond.

The gases leaving the packed scrubber will be reduced in volume and temperature. The volume is expected to be 91125 acfm at 100°F having a gas density of 0.064 lb/cuft.

Based on the above conditions, the existing fan will be able to handle the revised gas flowrate at a suction pressure of -26" wc.

FLUORIDE EMISSION CALCULATION

Basis:
Pond water F concentration: 7500 ppm
Pond water maximum temperature: 90°F

The equivalent % H_2SiF_6 conc. = 0.75%F x 114/144 = 0.947%

Ref. Fluoride vapor-liq. Equil. Data for H_2SiF_6 solutions.

F in equilibrium with pond water at 95°F = 0.035 mg/acf

F emission = 91125acfm x 0.035mg/acf /(1/453600mg/lb)x 60min./h = 0.421 lb F/h

The design allowable F emission = 0.98 lb F/hr

Based on the above calculation, the packed scrubber has the potential of reducing the fluoride emission by 0.98-0.421 or 0.559 Lb F/h.

No significant change in the particulate emission is expected since the upstream venturi scrubber will remove all of the particles that could be captured in a packed scrubber. However, some minor reduction of particulate emission will occur.

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MUSTANG
TAMPA, INC.

Client : USAC GMAP PLANT
Project : Conversion of Existing Scrubber to Packed Scrubber
Location : Fort Meade, FL
Job No. : T99167
O/M Estimate

Date: Jun. 9, 1999
Priced by: RAF

ACCT	DESCRIPTION		MANHOURS	LABOR	MATERIAL	SUBS	TOTAL	% Cost	% Equip
1000 - 2900	PROCESS EQUIPMENT		633	$25,870	$171,900	$48,800	$246,570	28.0%	100.0%
3000	U/G PIPE, SEWERS								
3100	PROTECTIVE COATINGS & LININGS		8	$320		$7,000	$7,320	0.9%	3.0%
3200	PIPING		3,250	$133,610	$189,350		$323,160	36.6%	131.1%
3300	PAINTING					$5,200	$5,200	0.6%	2.1%
3400	INSULATION								
3500	ELECTRICAL		300	$12,380	$13,000		$25,380	3.0%	10.3%
3600	INSTRUMENTATION		46	$2,010	$15,990		$18,000	2.1%	7.3%
3700	GENERAL FACILITIES								
4000	SITE PREPARATION								
4100	PILING & SOIL STABILIZATION								
4200	CONCRETE		172	$6,020	$2,440		$8,460	1.0%	3.4%
4300	STRUCTURAL STEEL		73	$2,920	$7,270		$10,190	1.2%	4.1%
4400	ROOFING & SIDING								
4500 - 4700	BUILDINGS								
	DIRECT FIELD COST		**4,484**	**$183,330**	**$399,950**	**$61,000**	**$644,280**	**75.8%**	**261.3%**
5000	SALES & USE TAX	7.0%					$28,000	3.3%	11.4%
6100	TEMPORARY FACILITIES								
6200-6300	SMALL TOOLS, CONSUMABLE SUPPLIES								
6400	CONSTRUCTION EQUIPMENT								
6500	FIELD OFFICE EXPENSE	Included w/ Wage Rates							
7400	NON-PRODUCTIVE, SHOW-UP, PREMIUM TIME								
7500	PRT & I, BENEFITS (Craft)								
7600	FIELD SUPERVISION								
	INDIRECT FIELD COST						$28,000	3.3%	11.4%
	TOTAL FIELD COST		**4,484**	**$183,330**	**$399,950**	**$61,000**	**$672,280**	**79.1%**	**272.7%**
6000	HOME OFFICE ENGINEERING AND SERVICES	15.0%					$100,800	11.9%	40.9%
7100	STARTUP, TESTING AND TRAINING								
8700	CONSTRUCTION MANAGEMENT - Home Office								
	PROFESSIONAL SERVICES						**$100,800**	**11.9%**	**40.9%**
7600	BUILDING PERMIT, LICENSES, CONSTRUCTION BONDS						By Others		
9900	ALLOWANCE FOR UNFORESEEN CONDITIONS	10.00%					$76,920	9.0%	31.2%
	TOTAL - O/M Estimate						**$850,000**	**100.0%**	**344.7%**

BEST AVAILABLE COPY

Mustang Tampa, Inc.
Date: 6-10-99
USAC GMAP Plant

DESCRIPTION AND DESIGN BASIS

CONVERSION OF EXISTING SCRUBBER TO A PACKED TAILGAS SCRUBBER.

MODIFY THE TWO EXISTING VENTURI SCRUBBERS:

Modify two existing venturi scrubbers with enlarged drain nozzles. Add a 8" 316Lss drain nozzle in the cooler venturi and a 14" 316Lss drain nozzle in the dryer/vents venturi scrubber.

MS-2009-Add a new 316L ss scrubber seal tank 10'-0" dia. By 8'-0" high with open top.

Repipe the two existing scrubber circulating pumps to take suction from the new scrubber seal tank. Discharge piping to remain as is.

MODIFICATIONS TO THE EXISTING CYCLONIC SCRUBBER:

a.) Remove the core buster.

b.) Remove most of the rubberlining from the scrubber. This will include all rubber below the existing mist eliminator.

c.) Weld three 4"x 4" angles to the inside shell periphery. One to support the packing support plate, the second to support the packing bed limiter screen and the third to support the liquid distributor weir boxes.

d.) Add one new 10" pond water inlet nozzle in the shell.

e.) Add two 36"x36" hinged manway doors in the shell.

f.) Replace the rubberlining on shell and all structural elements.

g.) Add the Norton gas distributor/packing support plate and structural beams.

h.) Add 10' of 3" Polyethylene Intalok Saddles. This is equivalent of 1900 cuft. Of packing.

i.) Add packing bed limiter screen and structural beams.

j.) Add the Norton liquid distributor weir boxes and structural beams.

k.) Add one platform (aprox. 45 degrees around the shell of the existing scrubber. Add stairs to connect existing platform to new platform (vertical distance is 10 ft.).

THE ADDITION OF NEW POND WATER PUMPS AND PIPING

PP-2014-Add one new Pond Water Supply Pump.
Type: Vertical Centrifugal w/ V-belt drive
Capacity: 1200 gpm
Head: 100 ft
Materials: 316Lss
BHp: 43 BHp
Motor: 50 Hp

PP-2015-Add one new Pond Water Return Pumps
Type: Horizontal Centrifugal w/direct drive
Capacity: 1200 gpm
Head: 70 ft
Materials: 316Lss

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BHp: 42.4
Motor: 50 Hp

Add Pond Water Supply Line:
Run new 8" line from pond water pump station to existing tailgas scrubber at MAP plant.

Assume 2500 ft of 8" FRP pipe on existing pipe racks.

Add Pond Water Return Line:
Run new 8" line from new pond water return pump to existing pond inlet.

Assume 2500 ft of 8" FRP pipe on existing pipe racks.

1. F⁻ EMISSION FROM MODIFIED PACKED SCRUBBER
   PER BOB DANOS, MUSTANG, TAMPA 0.421 lbs/hr
2. F⁻ EMISSION FROM 50T/H GMAP PERMIT APPLICATION @ 6000 HRS/YEAR 0.980 "
3. POTENTIAL F⁻ REDUCTION 0.980 − 0.421 = 0.559 lbs/hr

OPERATION AND MAINT. COST FOR MODIFIED PACKED SCRUBBER

1. OPERATING COST @ $0.059/KW
   FOR TWO PUMPS IN OPERATION 43 + 42.4 = 85.4 BHP

$$85.4\ \text{BHP} \times \frac{0.746\ \text{KW}}{\text{BHP}} \times \frac{6000\ \text{HRS}}{\text{YR}} \times \frac{\$0.059}{\text{KW}}$$

= $22,553/YR

2. MAINTENANCE COST

A. OPERATING LABOR $\frac{2\ \text{HRS}}{\text{SHIFT}} \times \frac{\text{SHIFT}}{8\ \text{HRS}} \times \frac{6000\ \text{HRS}}{\text{YR}} \times \$12.96/\text{HR}$

= $19,440/YR

B. SUPERVISORY LABOR $19,440 × 0.15 (EPA FACTOR)
$2,916/YR

C. MAINT. LABOR $\frac{1\ \text{HR}}{\text{SHIFT}} \times \frac{\text{SHIFT}}{8\ \text{HRS}} \times \frac{6000\ \text{HRS}}{\text{YR}} \times \frac{\$14.26}{\text{HR}}$

= $10,695/YR

D. MAINT. MATERIAL = $10,695 × 1.0 (EPA FACTOR)
= $10,695/YR.

TOTAL MAINT. COST [(A) + (B) + (C) + (D)] $19,440 + $2,916 + $10,695 + $10,695
= $43,746/YR

TOTAL ANNUAL O+M COSTS = (1) + (2) $22,553 + $43,746
= $66299/YR

INDIRECT COST

A. OVERHEAD $ 43,746 X 0.6 (EPA FACTOR)
= $ 26,248

B. ADMINISTRATION $850,000 x 0.02 (")
= $ 17,000

C. INSURANCE $ 850,000 X 0.01 (")
= $ 8,500

D. PROP. TAX $ 850,000 X 0.01 (")
= $ 8,500

E. CAPITAL RECOV'Y $ 850,000 X 0.1628 (")
= $ 138,380

TOTAL INDIRECT COST

[A] + [B] + [C] + [D] + [E] $ 26,248 + $ 17,000 + $ 8,500 + $ 8,500 + $ 138,380
= $ 198,628 /YR.

TOTAL ANNUAL COST $ 66,299 + $198,628
= $ 264,927

∴ ANNUAL COST OF CONTROL
PER TON F⁻ REMOVAL (ADD'L) $\$\frac{264,927}{0.559} \times \frac{2000}{6000}$
= $157,976.74
~ $157,997

Department of
Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

RECEIVED
JUN 25 1999
BUREAU OF
AIR REGULATION

Mr. Steven J. Susick, P.E.
General Manager of Engineering & Technical Services
U.S. Agri-Chemicals Corp.
3225 County Road 630 West
Ft. Meade, FL 33841

June 15, 1999

Dear Mr. Susick:

Re: Air Construction Permit Application, Dated May 17, 1999
Project: Granular MAP/DAP Plant
DEP File No. 1050051-008-AC
Site Name: Ft. Meade Chemical Plant
Location: State Road 630, Ft. Meade, Polk County

On May 18, 1999, the Department received the above referenced application. In order to continue processing the application, the Department will need the following additional information pursuant to Rule 62-4.070(1), F.A.C.:

1. Please provide a BACT determination for the proposed granulated MAP process.

2. Please comment on the following proposed condition to limit the combined production of prilled MAP and granular MAP/DAP:

The production rate of granular MAP/DAP shall not exceed 50 TPH (daily average basis) for either product and 300,000 tons per consecutive 12-month period for the total of both products. If any prilled MAP is produced during the same 12-month period, the above limitation is reduced by the following equation:

$$G = 300{,}000 - P/1.9$$

where:

G = reduced granular MAP/DAP production limit, tons per consecutive 12-month period
P = production of prilled MAP, tons per consecutive 12-month period

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

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Using the previous equation to limit production and the following to calculate fluoride emissions (F, tons per consecutive 12-month period) assures that potential fluoride emissions do not exceed 2.94 tons per consecutive 12-month period.

$$F = [G \times (0.53) \times (0.037 \text{ lb F/ton } P2O5) + P \times (0.53) \times (0.019 \text{ lb F/ton } P2O5)]/2000$$

where 0.53 converts tons MAP/DAP to tons P2O5 (provided in application)

The limit of 300,000 tpy for combined MAP/DAP production was requested in the permit application. In addition, this number was used in the emissions calculations. If you wish to limit the production of MAP to 300,000 tpy and DAP to 342,000 tpy, with the combined limit varying depending on the ratio of MAP to DAP, please calculate the potential emissions for both MAP and DAP production.

3. List each new material sizing and handling equipment vent and/or material transfer point with its emissions controlled and the associated air pollution control equipment.

4. List each new material sizing and handling equipment vent and/or material transfer that will not be controlled and any reasonable precautions to be taken to prevent emissions of unconfined particulate matter. Why aren't they controlled?

5. How often is the N/P mole ratio checked? How is it controlled? What is the optimum for fluoride removal? What is its variability?

6. Please further describe the operation of the tailgas scrubber mist elimination section.

7. What are the proposed normal operating pressure drop and flowrate ranges for the RG ammonia scrubber, RGDE venturi scrubber and C venturi scrubber.

8. Please update the Detailed Description of Control Equipment to correct references to the "tailgas scrubber".

"NOTICE: Pursuant to the provisions of Section 120.60, F.S. and Chapter 62-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department will issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered question will be submitted. If the response will require longer than 90 days to develop, an application for new construction should be withdrawn and resubmitted when completed information is available. Or for operating permits, you should develop a specific timetable for the submission of the requested information for Department review and consideration. Failure to comply with a timetable

accepted by the Department will be grounds for the Department to issue a Final Order of Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

NOTE: Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature.

Sincerely,

Eric Peterson, P.E.
Air Permitting Engineer

cc:
Mr. Al Linero, P.E., DARM
Mr. John B. Koogler, Ph.D., P.E., Kooger & Associates

U.S. Agri-Chemicals Corporation
3225 State Road 630 West
Fort Meade, FL 33841-9799
941 285 8121

D.E.R.
MAY 18 1999
SOUTHWEST DISTRICT
TAMPA

US Agri-Chemicals
A Sinochem Company

May 17, 1999

Mr. Bill Thomas, P.E.
Air Program Administrator
FDEP, Southwest District
3804 Coconut Palm
Tampa, FL 33619-8318

RECEIVED
MAY 25 1999
BUREAU OF
AIR REGULATION

RE: Ft. Meade Chemical Plant, 1050051-003-AV
MAP Plant, EU ID No. 032

Dear Mr. Thomas:

Enclosed are 4 copies of an application for the modification of the existing MAP prill plant to allow production of up to 50 TPH of MAP/DAP granular fertilizer as an "Alternative Method of Operation". The modification involves adding to the plant granulation equipment such as: reactor, granulator, dryer, ammonia scrubber, material sizing and handling equipment, etc. Granular fertilizer from this plant will be stored in the existing building and will be loaded into railcars by the existing loadout system. This application also seeks to add storage and loadout of granular fertilizer produced from the Bartow facility in the existing MAP building via the existing loadout system.

The following table shows emissions under both methods of operation and the annual emissions increase due to the proposed granular method:

Emissions Summary	* Existing		Proposed			
	Prilled MAP		Granular MAP/DAP		Emission	PSD
Permitted Production	525,600 tpy		300,000 tpy		Change	Significant
Emissions	tpy	lbs/hr	tpy	lbs/hr	tpy	tpy
PM/PM10	105	24	60	20	-45	15
FL	2.50	0.57	2.94	0.98	0.44	3
NOx	n/a	n/a	5.96	1.99	5.96	40
* Based on 60 tph PSD review						

Since the annual emissions increases are below the PSD Significant Emission Rates, this project is not subject to the New Source Review requirements. Please note that while the source is therefore only subject to 0.06 lbs F/ton P2O5 (40cfr60.222(a) (NSPS- Subpart V) & 62-296.403(1)(f) FAC), the requested emission rate of 0.037 lbs F/ton P_2O_5 is less than current BACT of 0.041.

PHOSPHATE FEEDS YOU

Please contact Mr. Ronald L. Brunk at (941) 285-7123, extension 279, if you have any questions.

Sincerely,

Steven J. Susick, P.E., General Manager
Engineering & Technical Services

xc J. Koogler

FLORIDA DEP LOGO

Department of Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

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

I. APPLICATION INFORMATION

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

Identification of Facility Addressed in This Application

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

1. Facility Owner/Company Name: U.S. Agri-Chemicals Corp.	
2. Site Name: Ft. Meade Chemical Plant	
3. Facility Identification Number: 1050051	[ ] Unknown
4. Facility Location: State Road 630 Street Address or Other Locator: 2 miles west of Ft. Meade City: Ft. Meade County: Polk Zip Code: 33841	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
Steven J. Susick, P.E.
General Manager of Engineering & Technical Services

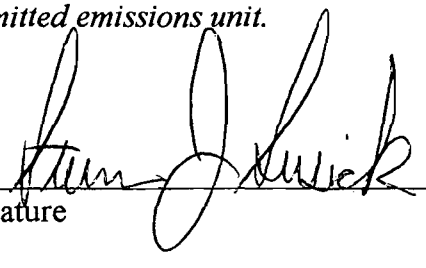
2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: U.S. Agri-Chemicals
Street Address: 3225 County Road 630 West
City: Ft. Meade State: FL Zip Code: 33841

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
Telephone: (941)285 -8121, x-344 Fax: (941)285 -7088

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*



Signature

MAY 17, 1999
Date

* Attach letter of authorization if not currently on file.
Letter of authorization is currently on file.

Scope of Application

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

Emissions Unit ID	Description of Emissions Unit	Permit Type
032	Modification of an existing MAP Prill Plant to allow MAP/DAP granular production. The existing prill MAP Storage & Loadout system will be used for MAP/DAP granular storage & loadout.	AC1C

Purpose of Application and Category

Check one (except as otherwise indicated):

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

NOT APPLICABLE

This Application for Air Permit is submitted to obtain:

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

[ ] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: _____

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

Operation permit to be renewed: _____

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

Current construction permit number: _____

Operation permit to be revised: _____

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

Operation permit to be revised/corrected: _____

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

Operation permit to be revised: _____

Reason for revision: _____

_____

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

NOT APPLICABLE

This Application for Air Permit is submitted to obtain:

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

Current operation/construction permit number(s):

_____

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

Operation permit to be renewed: _____

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

Operation permit to be revised: _____

Reason for revision: _____

_____

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

This Application for Air Permit is submitted to obtain:

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

Current operation permit number(s), if any: 105-0051-003-AV

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

Current operation permit number(s): _____

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

Application Processing Fee

Check one:

[ ] Attached - Amount: $_____ [X] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations:

USAC proposes to modify the existing MAP prill plant to allow production of up to 50 TPH of MAP/DAP granular fertilizer as an "Alternative Method of Operation". The modification involves adding to the plant some granulation equipment such as: reactor, granulator, dryer, ammonia scrubber, material sizing and handling equipment, etc. The dryer will use natural gas as fuel. Granular fertilizer from this plant will be stored in the existing building and will be loaded into railcars by the existing loadout system. Granular fertilizer from the Bartow facility may also be brought in by trucks to be stored in the existing building and be loaded into railcars by the existing loadout system. No significant changes to the existing air pollution control systems are planned.

When the plant is operated in the granulation method, requested fluorides emissions are higher than the currently permitted levels for MAP prill fertilizer production (2.94 vs. 1.7 TPY, respectively). However, the requested fluorides emissions are still below PSD significant emission rates. Regarding particulate matter emissions, the existing control system will be able to meet the BACT limit established for MAP prill fertilizer production (0.4 lbs/ton product). Based on AP-42 emission factor for natural gas combustion, the nitrogen oxides emissions [from the dryer] will be 5.96 TPY which is also below PSD significant emission rate. Since granular fertilizer is less dusty than prill fertilizer, particulate matter emissions from the loadout system are expected to be less.

2. Projected or Actual Date of Commencement of Construction: September 1999

3. Projected Date of Completion of Construction: November 2000

Professional Engineer Certification

1. Professional Engineer Name: John B. Koogler Registration Number: 12925
2. Professional Engineer Mailing Address: Organization/Firm: Koogler & Associates Street Address: 4014 NW 13th St City: Gainsville State: FL Zip Code: 32609
3. Professional Engineer Telephone Numbers: Telephone: (352)377 -5822 Fax: (352)377 -7158

4. Professional Engineer Statement:

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

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

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

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

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

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

JOHN B. [illegible] CERTIFICATE NO. 12125 STATE OF FLORIDA REGISTERED ENGINEER

Signature

5/14/99
Date

(seal)

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:

Steven J. Susick, P.E.
General Manager of Engineering & Technical Services

2. Application Contact Mailing Address:

Organization/Firm: U.S. Agri-Chemicals
Street Address: 3225 County Road 630 West
City: Ft. Meade State: FL Zip Code: 33841

3. Application Contact Telephone Numbers:
Telephone: (941)285 -8121, x-344 Fax: (941)285 -7088

Application Comment

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17	East (km): 416.2	North (km): 3068.7	
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 27/44/40	Longitude (DD/MM/SS): 81/51/08		
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 28	6. Facility SIC(s): 2874
7. Facility Comment (limit to 500 characters):			

Facility Contact

1. Name and Title of Facility Contact: Ronald L. Brunk Manager, Environmental Engineering		
2. Facility Contact Mailing Address: Organization/Firm: U.S. Agri-Chemicals Street Address: 3225 County Road 630 West City: Ft. Meade	State: FL	Zip Code: 33841
3. Facility Contact Telephone Numbers: Telephone: (941)285 -8121, ext 279	Fax: (941)285 -7088	

Facility Regulatory Classifications

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

B. FACILITY REGULATIONS

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

NOT REQUIRED

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

40CFR60, SUBPART A	GENERAL NSPS
40CFR60, APPENDIX A	TEST METHODS
40CFR61, SUBPART R	GYPSUM STACK
40CFR61, APPENDIX B	TEST METHODS
DEP TITLE V CORE LIST	
40CFR61, SUBPART A	GENERAL NESHAP
CHAPTER 62-4, 204, 210, 212, 213, 214, 252, 256, 257, 281, 296, 297 FAC	Florida Air Rules
CHAPTER 62-212, FAC	PRECONSTRUCTION REVIEW
40CFR68	ACCIDENTIAL RELEASE PREVENTION
40 CFR 52, 55, 63, 82	EPA AIR RULES

C. FACILITY POLLUTANTS

Facility Pollutant Information

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

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information: Pollutant _____ of _____
NOT APPLICABLE

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

Facility Pollutant Detail Information: Pollutant _____ of _____
NOT APPLICABLE

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

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

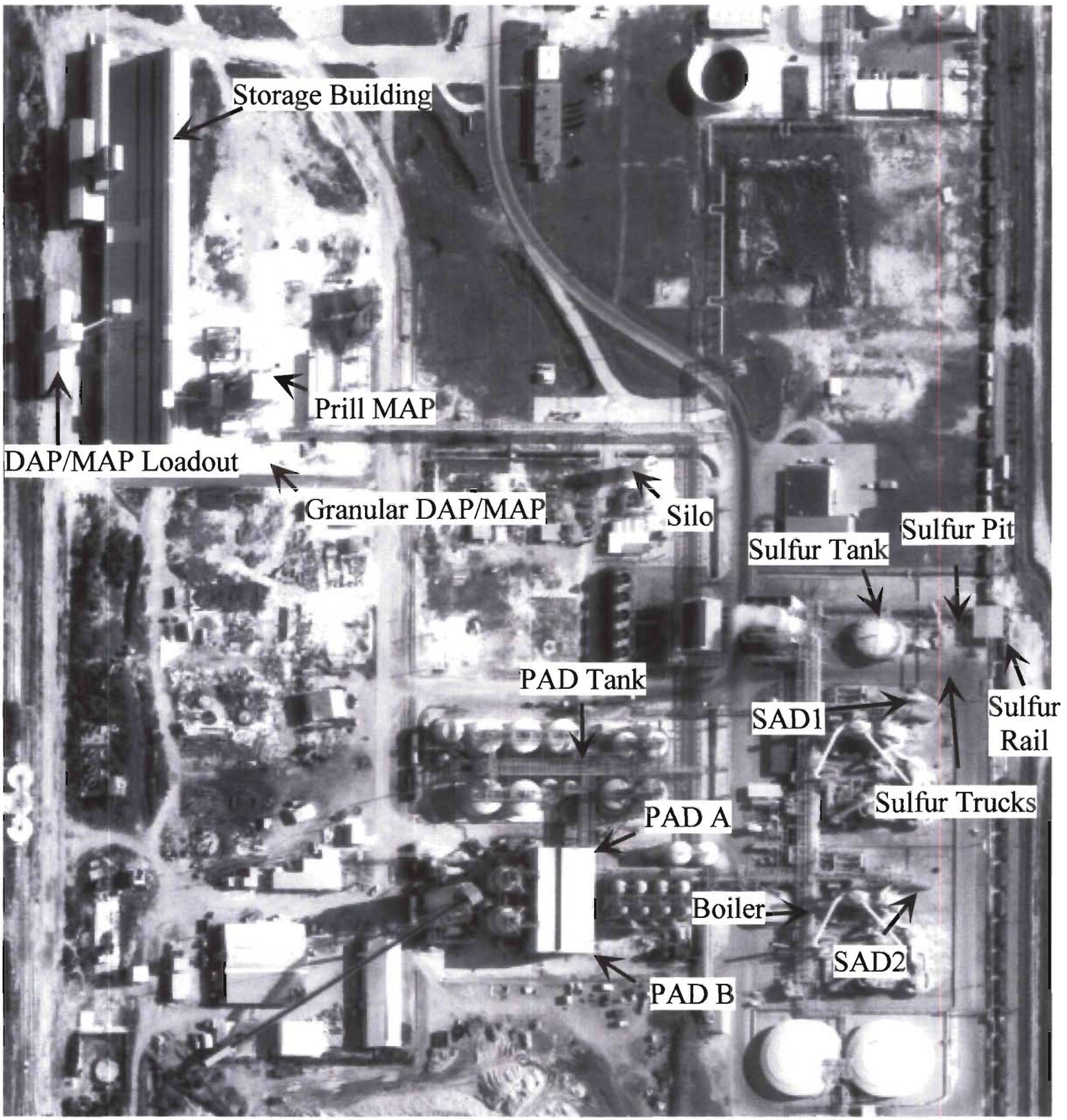
1. Area Map Showing Facility Location: [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID: [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [X] Attached, Document ID: [ ] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Fugitive Emissions Identification: [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [ ] Attached, Document ID:_____ [X] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: [ ] Attached, Document ID: _____[X] Not Applicable
8. List of Equipment/Activities Regulated under Title VI: [ ] Attached, Document ID:_____ [ ] Equipment/Activities On site but Not Required to be Individually Listed [X] Not Applicable
9. Alternative Methods of Operation: [ ] Attached, Document ID:__ [X] Not Applicable
10. Alternative Modes of Operation (Emissions Trading): [ ] Attached, Document ID:_____ [X] Not Applicable

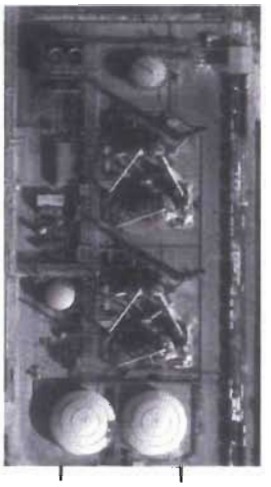
11. Identification of Additional Applicable Requirements: [ ] Attached, Document ID:_____ [X] Not Applicable
12. Compliance Assurance Monitoring Plan: [ ] Attached, Document ID:_____ [X] Not Applicable
13. Risk Management Plan Verification: [ ] Plan Submitted to Implementing Agency - Verification Attached, Document ID:_____ [ ] Plan to be Submitted to Implementing Agency by Required Date [X] Not Applicable
14. Compliance Report and Plan: [ ] Attached, Document ID: _____[X] Not Applicable
15. Compliance Certification (Hard-copy Required): [ ] Attached, Document ID: _____ [X] Not Applicable

U.S. Agri-Chemicals
Title V Facility Plot Plan



U.S. Agri-Chemicals
Ft. Meade Product Flow Diagram

Sulfuric Acid Plant



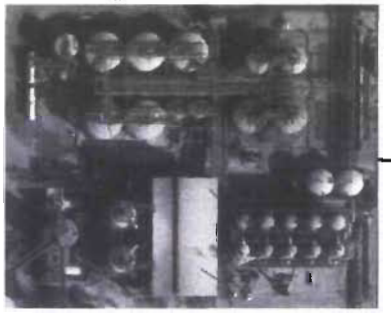
Sulfur

520K Tons/yr

Steam

Sulfuric Acid 1.6 MM Tons/yr

Phosphoric Acid Plant



Phosphate Rock

1.9 MM Tons/yr

Phosphoric Acid

550K Tons/yr

Trucked to Bartow

400-470K Tons/yr

Di-Ammonium Phosphate (DAP) 1.1M Tons/yr

Ammonia

160-240K Tons/yr

20-40K Tons/yr

80-150K Tons/yr

Di/Mono-Ammonium Phosphate (DAP/MAP) 150-300K Tons/yr

E. Facility Supplemental Information 6. **FSI**

Supplemental Information for Construction Permit Application

USAC proposes to modify the existing MAP prill plant to allow production of up to 50 TPH of MAP/DAP granular fertilizer as an "Alternative Methods of Operation". The modification involves adding to the plant some granulation equipment such as: reactor, granulator, dryer, ammonia scrubber, material sizing and handling equipment, etc. Emissions from the reactor and the granulator will go through the ammonia scrubber prior to the Tower venturi. Emissions from the dryer and material handling equipment also will go through the Tower venturi. Emissions from the existing Cooler will continue to go through the cooler venturi. The dryer will use natural gas as fuel. Granular fertilizer from this plant will be stored in the existing building and will be loaded into railcars by the existing loadout system. Granular fertilizer from the Bartow facility may also be brought in by trucks to be stored in the existing building and be loaded into railcars by the existing loadout system. No significant changes to the existing air pollution control systems are planned other than upgrading the scrubber pressure drop instrument to allow continuous recording.

When the plant is operated in the granulation method, requested fluorides emissions are higher than the currently permitted levels for MAP prill fertilizer production (2.94 vs. 1.7 TPY, respectively). However, the requested fluorides emissions are still below PSD significant emission rates. Regarding particulate matter emissions, the existing control system will be able to meet the BACT limit established for MAP prill fertilizer production (0.4 lbs/ton product). Based on AP-42 emission factor for natural gas combustion, the Nitrogen oxides emissions [from the dryer] will also be below PSD significant emission rate. Since granular fertilizer is less dusty than prill fertilizer, particulate matter emissions from the loadout system are expected to be less. The annual emissions summary for granular fertilizer in the following table was determined based on maximum annual production of 300,000 tons.

Emissions Summary	* Existing		Proposed			
	Prilled MAP		Granular MAP/DAP		Emission	PSD
Permitted Production	525,600 tpy		300,000 tpy		Change	Significant
Emissions	tpy	lbs/hr	tpy	lbs/hr	tpy	tpy
PM/PM10	105	24	60	20	-45	15
FL	2.50	0.57	2.94	0.98	0.44	3
NOx	n/a	n/a	5.96	1.99	5.96	40
* Based on 60 tph PSD review						

We believe that when the plant is operated in the granulation method, Visible Emissions from the stack and the baghouse vent will meet the those set for the prill method (15% and 5% opacity, respectively).

Since the above table shows that annual FL and NOx emissions increases are below the PSD Significant Emission Rates, this project is not subject to the New Source Review requirements.

III. EMISSIONS UNIT INFORMATION MAP/DAP

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

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

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

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

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

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): MAP/DAP GRANULAR PLANT		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown **032**		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 28
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment

A.

1. Description (limit to 200 characters): Venturi Scrubber
2. Control Device or Method Code: 053

B.

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

C.

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

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

MAP/DAP

Emissions Unit Details

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

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate: 14.2	mmBtu/hr
2. Maximum Incineration Rate: NA lb/hr	tons/day
3. Maximum Process or Throughput Rate: 26.5 TPH of P_2O_5 input	
4. Maximum Production Rate: 50 TPH of GRANULAR MAP/DAP	
5. Operating Capacity Comment (limit to 200 characters): Maximum Heat Input Rate is calculated based on 50 TPH Maximum process rate is calculated from conversion factor of 0.53	

Emissions Unit Operating Schedule

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

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

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

NOT REQUIRED

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

Chapter 62-212.400, FAC	**PM AND VE PSD BACT**
Chapter 62-296.403, FAC	**PHOSPHATE PROCESSING**
Chapter 62-297.401, FAC **40CFR60, APPENDIX A**	**EPA TEST METHODS 1,2,3,5, 13A or B**
Chapter 62-297.310, FAC	**GENERAL TEST REQUIREMENTS**
AC53-260190	**SPECIFIC CONDITIONS**
Chapter 62-296.403(3), FAC	**TEST METHODS AND PROCEDURES**
40 CFR 60, Subpart V	**DAP NSPS**

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: MAP/DAP	
2. Emission Point Type Code: [X] 1 [ ] 2 [ ] 3 [ ] 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA	
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [X] V [ ] W	
6. Stack Height: 135.5	feet
7. Exit Diameter: 6.71	feet
8. Exit Temperature: 142	°F

9. Actual Volumetric Flow Rate: 100000	acfm
10. Percent Water Vapor :	%

11. Maximum Dry Standard Flow Rate: 73000	dscfm
12. Nonstack Emission Point Height: NA	feet
13. Emission Point UTM Coordinates: NOT REQUIRED Zone: East (km): North (km):	
14. Emission Point Comment (limit to 200 characters):	

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

Segment Description and Rate: Segment __1___ of ___2__

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): MAP/DAP GRANULAR Production.	
2. Source Classification Code (SCC): 3-01-030-02	
3. SCC Units: TONS PRODUCED	
4. Maximum Hourly Rate: 50	5. Maximum Annual Rate: 300000
6. Estimated Annual Activity Factor: NA	
7. Maximum Percent Sulfur: NA	8. Maximum Percent Ash: NA
9. Million Btu per SCC Unit: NA	
10. Segment Comment (limit to 200 characters): Maximum Annual Rate is synthetically limited to 300000 TPY MAP or 342000 TPY DAP to escape FL PSD NSR	

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

Segment Description and Rate: Segment __2___ of ___2__

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Dryer burning natural gas.	
2. Source Classification Code (SCC): 3-90-006-89	
3. SCC Units: MMCF	
4. Maximum Hourly Rate: 0.0142	5. Maximum Annual Rate: 85.2
6. Estimated Annual Activity Factor: NA	
7. Maximum Percent Sulfur: NA	8. Maximum Percent Ash: NA
9. Million Btu per SCC Unit: 1000	
10. Segment Comment (limit to 200 characters): Maximum Hourly Rate based on 50 TPH production = 14.2 mmBTU/H / 1000 mmBTU/mmCF = 0.0142 Maximum Annual Rate based on 300000 TPY production = 14.2 *300000TPY / 50TPH /1000 = 85.2	

G. EMISSIONS UNIT POLLUTANTS MAP/DAP
(Regulated and Unregulated Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
FL	**053**		**EL**
PM	**053**		**EL**
NOX			**NS**

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

Pollutant Detail Information:

1. Pollutant Emitted: FL				
2. Total Percent Efficiency of Control:	92			%
3. Potential Emissions:	0.98	lb/hour	2.94	tons/year
4. Synthetically Limited? [X] Yes [ ] No				
5. Range of Estimated Fugitive/Other Emissions: [X] 1 [ ] 2 [ ] 3			__ to ____	tons/year
6. Emission Factor: 0.037 LBS/T OF P_2O_5 input Reference: Design data				
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [X] 5				

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

Efficiency = (12.5 – 0.98) / 12.5 * 100 = 92%
Potential Emissions lb/hour = 0.037 * 26.5 = 0.98
Potential Emissions tons/year = 300000TPY * .53 * 0.037 / 2000 = 2.94

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

EMISSIONS UNIT POLLUTANT DETAIL INFORMATION **MAP/DAP**
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: PM/PM10
2. Total Percent Efficiency of Control: 99 %
3. Potential Emissions: 20 lbs/hour 60 tons/year
4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [X] 1 [ ] 2 [ ] 3 __ to ____ tons/year
6. Emission Factor: 0.4 LBS/T OF MAP/DAP Reference: Design data
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [X] 5
8. Calculation of Emissions (limit to 600 characters): Efficiency = (1563 – 20) / 1563 * 100 = 99% Potential Emissions lbs/hour = 0.4 * 50 = 20 Potential Emissions tons/year = 0.4*300000/2000 = 60
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

EMISSIONS UNIT POLLUTANT DETAIL INFORMATION **MAP/DAP**
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: NOX
2. Total Percent Efficiency of Control: NA %
3. Potential Emissions: 1.99 lbs/hour 5.96 tons/year
4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [X] 1 [ ] 2 [ ] 3 __ to ____ tons/year
6. Emission Factor: 140 LBS/ MMCF Reference: FIRE
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [X] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): Potential Emissions lbs/hour = 140 lbs/mmCF * 0.0142 mmCF/hr = 1.99 Potential Emissions tons/year = 300000 TPY / 50 TPH * 1.99 / 2000 = 5.96
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Allowable Emissions (Pollutant identified on front of page)

A. FL

1. Basis for Allowable Emissions Code: ESCPSD
2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 0.037 lbs/T P2O5 input
4. Equivalent Allowable Emissions: 0.98 lb/hour 2.94 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 13 A or B
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Allowable emissions requested to escape PSD NSR

B. PM

1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 0.4 lbs/T product
4. Equivalent Allowable Emissions: 20 lb/hr 60 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 5
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Rule is PSD BACT for prill MAP

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

MAP/DAP

Visible Emissions Limitation: Visible Emissions Limitation ___1___ of ___1___ **NOT APPLICABLE**

1. Visible Emissions Subtype: VE15	
2. Basis for Allowable Opacity:	[X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 15 % Maximum Period of Excess Opacity Allowed:	Exceptional Conditions: % min/hour
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 characters): Rule is PSD BACT for prill MAP	

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

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

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

MAP/DAP

Continuous Monitoring System: Continuous Monitor __1___ of __4___

1. Parameter Code: PRS	2. Pollutant(s): NA
3. CMS Requirement: [X] Rule	[ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): CMS requirement is 40 CFR 60.223(c), pressure drop across cooler venturi scrubber Monitor information to be provided after construction completion.	

Continuous Monitoring System: Continuous Monitor __2___ of __4___

1. Parameter Code: PRS	2. Pollutant(s): NA
3. CMS Requirement: [X] Rule	[ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): CMS requirement is 40 CFR 60.223(c), pressure drop across tower venturi scrubber Monitor information to be provided after construction completion.	

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

MAP/DAP

Continuous Monitoring System: Continuous Monitor __3___ of __4___

1. Parameter Code: FLOW	2. Pollutant(s): NA
3. CMS Requirement: [X] Rule	[ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): CMS requirement is 40 CFR 60.223(a), flow of acid into the plant Monitor information to be provided after construction completion.	

Continuous Monitoring System: Continuous Monitor __3___ of __4___

1. Parameter Code: FLOW	2. Pollutant(s): NA
3. CMS Requirement: [X] Rule	[ ] Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): CMS requirement is 40 CFR 60.223(a), flow of acid into the plant Monitor information to be provided after construction completion.	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

(Regulated and Unregulated Emissions Units) **MAP/DAP**

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide? **Y**

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

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

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

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

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

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

2. Increment Consuming for Nitrogen Dioxide?

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

[ ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.

[X] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

[ ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.

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

3. Increment Consuming/Expanding Code:			
PM	[ ] C	[ ] E	[ ] Unknown
SO2	[ ] C	[ ] E	[ ] Unknown
NO2	[ ] C	[ ] E	[ ] Unknown
4. Baseline Emissions:			
PM		lb/hour	tons/year
SO2		lb/hour	tons/year
NO2			tons/year
5. PSD Comment (limit to 200 characters):			

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

MAP/DAP

Supplemental Requirements for All Applications

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

Additional Supplemental Requirements for Category I Applications Only

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

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

12. Identification of Additional Applicable Requirements
[ ] Attached, Document ID: [X] Not Applicable

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

14. Acid Rain Application (Hard-copy Required)

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

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

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

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

[X] Not Applicable

NEW GA-2001 MAP REACTOR AGITATOR
NEW MB-2007 MAP REACTOR
EXIST. 05.210 ACID DAY TANK AGITATOR
EXIST. 09.210 ACID DAY TANK
EXIST. 11.110 AMMONIA VAPORIZER
NEW CC-2005 ROTARY GRANULATOR
NEW CD-2008 DRYER
NEW CK-2030 R-C ACID SCRUBBER
NEW CS-2032 RECYCLE CONVEYOR
NEW CS-2008 SCREEN FEED ELEVATOR
NEW CS-2026A/B MAGNETIC SEPARATOR
NEW CJ-2019 DRYER CYCLONE
NEW CJ-2018 COOLER CYCLONE
NEW CS-2009 RECYCLE ELEVATOR
NEW CS-2024A/B PRODUCT SCREEN
NEW CC-2026A/B OVERSIZE MILL
NEW MB-2006 PRODUCT BIN
NEW CS-2012 PRODUCT FEEDER
NEW CS-2016 PRODUCT TRANSFER CONVEYOR
NEW MB-2008 FINES RECLAIM HOPPER
NEW CS-2022 FINES RECLAIM CONVEYOR

NEW CS-2029 EQUIPMENT SERVICE HOIST

EXIST. LINE TO TOWER PIPE REACTOR
30 PSIG STEAM
CLOSE STM VALVE ON H.P.
LIQUID AMMONIA
CONDENSATE
VAPOR AMMONIA
11.110
EXIST. LINE FROM SPRAY TOWER
EXISTING DEMISTER FRESH WATER
TO ATM
TO START & STOP PP-2011
EXIST. 10.130 SCRUBBER
10.120
10.110
EXIST. 01.121 01.122 SCRUBBER PUMP
EXIST. 03.110 SCRUBBER PUMP
EXIST. 10.110 STACK
MAKE-UP WATER EXISTING
PHOS. ACID FROM PP2011
TO PRODUCT TRIPPER CONV.
29.130
EXIST. 25.110 COOLER CYCLONE
25.110
31.110
EXIST. 29.130 STORAGE TRANSFER CONVEYOR

CJ-2019
CJ-2018
CS-2014 AIRLOCK
CS-2015 AIRLOCK
EQUIPMENT VENTS
VENT
CS-2026A
CS-2026B
NEW CS-2013 MANUAL SCREEN FEED SPLITTER
CS-2024A/B
CC-2026A
CC-2026B
MB-2006
CS-2012
CS-2016
CS-2032
CS-2022
STORAGE BLDG. WALL
MB-2008
CS-2009
CS-2008

4.8% PHOS. ACID
NATURAL GAS
AMBIENT AIR
NAT. GAS
TO SCRUBBER
M.P. STEAM
CC-2005
HF-2002
PB-2008
GA-2001
MM-2007
PP-2010A/S
05.210
01.111 01.112
PP-2012A/S

NEW PP-2010A/S GRANULATOR FEED PUMP
EXIST. 01.111 01.112 PHOS. ACID FEED PUMP
NEW PP-2011 PHOSPHORIC ACID METERING PUMP
PB-2008 COMBUSTION AIR BLOWER
PP-2012A/S R-C ACID SCRUBBER PUMP
PP-2013 GMAP SUMP PUMP
EXIST. 25.110 PRODUCT COOLER
EXIST. 31.110 PRODUCT ELEVATOR
EXIST. 29.130 STORAGE TRANSFER CONVEYOR
GMAP SUMP

Issue	Date	By	Description of Issue	Chk'd	App'd
2	5/16/99	LB	REVISED		
1	5/11/99	LB	FOR DESIGN BASIS	RJB	JS

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Mustang Dwg. No.

PROCESS FLOW DIAGRAM
MAP GRANULATION ADDITION
U. S. AGRI-CHEMICALS
FORT MEADE FLORIDA

This drawing is not to be used for construction or for ordering materials unless dated and signed.

Scale

Approvals

	Design	Eng'r.		
Certified				
Date				

PLANT CLASSIFICATION			
PURCHASE ORDER NO.			
FABRICATOR			
Designed By	Drawn By: S. Whitmore	Checked By	

Dwg. No.: 99167-106-1 ISSUE 2

ENGINEERING REV. 04-02-98

SUPPLEMENTAL REQUIREMENTS FOR All APPLICATIONS:

Detail Description of Control Equipment

The following is a detail process description of the air pollution control devices in the new Granular MAP plant.

REACTOR AND GRANULATOR FUMES:

The fumes from the MAP reactor and granulator will be combined and sent to a new venturi-cyclonic ammonia scrubber.

The reactor fumes consists of 8000-12000 acfm containing steam, ammonia and fluorides but no particulates.

The Granulator fumes consists of 12000-18000 acfm containing steam, ammonia, fluorides and particulates.

These two streams will pass through a low pressure drop venturi where they contact a partially neutralized phosphoric acid with a 1.2 to 1.4 N/P mole ratio. This stream is expected to absorb >95% of the ammonia and >85% of the particulates. The high N/P mole ratio will prevent fluorides from being stripped out.

These gases will next pass through a spray zone located in the tangential inlet to cyclonic section. The cyclonic section is designed to spin out and recover the acidic mist before the gas is allowed to exit the scrubber.

The Reactor-Granulator Ammonia Scrubber exit gases are sent to the existing final scrubber for fluoride and particulate removal.

The makeup liquid to the RG Ammonia scrubber will be both 48%-54% phosphoric acid and Tailgas Scrubber purge water.

The RG Ammonia Scrubber liquor purge will be by a level control System and sent to the MAP reactor.

DRYER EXIT GASES and EQUIPMENT VENTS:

The dryer exit gases consists of 32000-45000 acfm containing dusty air, ammonia, Nox, and fluorides.

The equipment vent gases consists of 10000- 15000 acfm containing dusty air, ammonia, and fluorides.

These two streams are combined and passed through a high efficiency cyclone where >95% of the particulate matter is recovered and sent back into the process.

The Dryer/Vents cyclone exit gases are sent to the existing final scrubber for fluoride and particulate removal.

COOLER VENTS:

The rotary cooler exit air consists of 22000-32000 acfm of dusty air containing small trace amounts of ammonia and fluorides.

This stream is first treated in a high efficiency cyclone where >95% of the particulate matter will be recovered.

The exit gas will be further treated in the existing final scrubber for fluoride removal.

EXISTING FINAL TAILGAS SCRUBBER

The gases from the RG Ammonia Scrubber, and Dryer/Vents Cyclone consisting of 60000-90000 acfm will be combined before entering the largest of the two venturi scrubbers.

These gases will initially be contacted with 800-1000 gpm of recirculated scrubber water in a variable throat venturi scrubber. This action will remove the fluorides and particulates.

The gases leaving the venturi will pass through a spray zone as it passes through a tangential inlet to the cyclonic scrubber.

The gases from the Cooler Cyclone consisting of 25000-33000 acfm is treated in a separate smaller venturi scrubber.

These gases are contacted with 200-300 gpm of recirculated scrubber water in a variable throat venturi scrubber. This action will remove the fluorides and particulates.

The gases leaving the Cooler venturi will pass through a spray zone as it passes through a tangential inlet to the cyclonic scrubber.

The cyclonic scrubber's spinning action will separate most of the mist before it enters a mist elimination section. This section will remove >99% of the liquid droplets entrained in the gas stream.

The gases leaving the tailgas scrubber consisting of 90000-125000 acfm will go to the existing fan that provides the draft for the

entire system. The fan discharges 90000-120000 acfm into the vertical existing stack to atmosphere.

Makeup water will be added to the scrubber as needed. The scrubber liquid will accumulate particulate matter (MAP dust), fluorides and ammonia. It is expected that the absorption of ammonia will increase the pH of the liquid and will require pH control by the addition of a small quantity of phosphoric acid.

It is planned to control the N/P mole ratio of the scrubbing water to keep the vapor pressure of fluorides at its minimum level.

The pH of the scrubbing water will be controlled to ensure recovery of ammonia.

The Tailgas Scrubber liquor will be purged by a level control system and sent to the RG Ammonia Scrubber as a diluent for the makeup phosphoric acid to that scrubber.

RECEIVED
FEB 17 1999
BUREAU OF
AIR REGULATION

STATEMENT OF BASIS

U.S. Agri-Chemicals Corporation
Ft. Meade Chemical Plant
Facility ID No.: 1050051
Polk County

Revised Title V Air Operation Permit
DRAFT Permit No.: 1050051-003-AV
(Revised under project 1050051-006-AV)

This facility consists of two phosphoric acid plants -- A and B Trains, one phosphoric acid plant tank farm, two sulfuric acid plants, one MAP Plant, MAP Plant Storage and Loadout, one auxiliary boiler, one molten sulfur storage and handling system, and one lime silo.

This revised permit reflects the addition of the MAP Plant and MAP Loadout System (Subsection E within). The only change within from the previously issued permit is the addition of Subsection E and associated changes to the Table of Contents, etc.

[electronic file name: 1050051.sob]

Al/John – usually see cond. E.1.b & let us know if you have any comment. Jerry 2/5/99

Tallahassee
--ATTENTION MAIL ROOM--

PLEASE ROUTE THIS DOCUMENT TO:

John Reynolds
Name of Individual/Office

5505
Mail Station Number

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

January 21, 1999

Mr. Steven J. Susick, P.E.
General Manager, Eng. & Tech. Services
U.S. Agri-Chemicals Corporation
3225 State Rd. 630 West
Ft. Meade, FL 33841

Re: DRAFT Title V Permit No.: 1050051-003 -AV
Ft. Meade Chemical Plant

Dear Mr. Susick:

This revised permit reflects the addition of the MAP Plant and MAP Loadout System (Subsection E within). The only change within from the previously issued permit is the addition of Subsection E and associated changes to the Table of Contents, etc. Title V rules require that this revision proceed through the process of this draft permit (requiring a public notice), and a proposed permit (requiring EPA review), before the final revised permit can be issued.

One copy of the DRAFT Revised Title V Air Operation Permit for the Ft. Meade Chemical Plant facility located at 3225 State Road 630 West, Ft. Meade, Polk County, is enclosed. The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible upon receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (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.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Gerald Kissel, P.E., at the above letterhead address. If you have any other questions, please contact Roger Cawkwell, P.E., at 813/744-6100 ext. 117.

Very truly yours,

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

Enclosures
[electronic file name: 1050051i.doc]

DRAFT Permit No.: 1050051-003-AV

Subsection E. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-032	MAP Plant, MAP Storage & Loadout

The 40.9 TPH prilled MAP plant is based on the Swift prill tower process. In this process, diluted wet process phosphoric acid is reacted with ammonia vapor in a pipe reactor and sprayed into the top of the tower to produce MAP. Ambient air entering the bottom of the tower removes moisture in the MAP as they fall by gravity to the bottom of the tower. The gas in the tower is evacuated to a venturi scrubber. Product MAP is cooled in a cooler. The gas in the cooler is evacuated to a smaller venturi scrubber. The gas and liquid from both venturi scrubbers enter a cyclonic separator prior to being discharged to the atmosphere via a stack. A portion of the scrubber liquid is used to adjust the concentration of phosphoric acid in the day tank. Fresh water and/or cooling pond water is used to maintain scrubber water balance. The cooler discharges to a transfer system which carry the MAP to a storage building. From the storage building, MAP is loaded into railcars by a loadout system. Dust from the loadout system is controlled by a baghouse.

{Permitting note(s): These emissions units are regulated under Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards and Rule 62-296.403, F.A.C., Phosphate Processing.}

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

Essential Potential to Emit (PTE) Parameters

E.1. Capacity.

a. The production rate of the Prilled MAP Plant shall not exceed 40.9 tons of MAP Product per hour, except as allowed by Condition E.1.b below.

b. In order to regain the originally intended plant capacity of 60 tons of MAP product per hour, the permittee may conduct a performance test at a rate higher than 40.9 tons of MAP product per hour and up to 60 tons of MAP product per hour by notifying the Department at least 15 days in advance of the special test. The plant may be operated at the higher rate for only seven consecutive days and then must resume operation at no higher than 40.9 tons of MAP product per hour. Upon written approval of the performance test by the Department, which shall include a determination that the plant will be able to meet the limits of conditions E.2, E.3 and E.4, the plant will be authorized to operate at a rate up to and including the rate experienced during the performance test. In the process of regaining the originally intended capacity of 60

tons of MAP product per hour, the permittee shall not be required to undergo another PSD review and BACT determination for PM/PM10 under Rule 62-212.400, F.A.C. or another BACT review for fluorides under Rule 62-296.403, F.A.C., unless the permittee submits an application to increase the plant's maximum operating capacity above 60 tons of MAP product per hour.

[Rule 62-4.160(2), F.A.C. and Rule 62-210.200, F.A.C., Definitions - (PTE), Air Construction permit AC53-260190/PSD-FL-222]

Emission Limitations and Standards

E.2. Particulate matter(PM)/PM_{10} emissions from the Prilled MAP Plant scrubber stack shall not exceed any of the following:

a. 0.4 pounds per ton of MAP product;
b. 16.4 pounds per hour;
c. 71.7 tons per year.

[Air Construction permit AC53-260190/PSD-FL-222]
{Permitting Note: Emission limits based on 40.9 tons per hour of MAP product.}

E.3. Fluoride emissions from the Prilled MAP Plant scrubber stack shall not exceed any of the following:

a. 0.019 pounds per ton of P_2O_5 input;
b. 0.39 pounds per hour;
c. 1.7 tons per year.

[Air Construction permit AC53-260190/PSD-FL-222]
{Permitting Note: Emission limits based on 20.5 tons per hour P_2O_5 input.}

E.4. Visible emissions from the Prilled MAP Plant scrubber stack shall not exceed 15% opacity.
[Air Construction permit AC53-260190/PSD-FL-222]

E.5. Visible emissions from the Prilled MAP Plant Loadout baghouse shall not exceed 5% opacity.
[Air Construction permit AC53-260190/PSD-FL-222]

Test Methods and Procedures

E.6. The Prilled MAP Plant scrubber stack shall be tested for the following pollutants annually, on or during the 60 day period prior to December 30.

a. total fluorides;
b. PM/PM_{10};
c. visible emissions.

[Rules 62-297.310(7)(a)4, F.A.C., and Air Construction Permit AC53-260190/PSD-FL-222]

E.7. The Prilled MAP Plant Loadout baghouse shall be tested for visible emissions annually on or during the 60 day period prior to December 30.
[Rules 62-297.310(7)(a)4, F.A.C., and Air Construction Permit AC53-260190/PSD-FL-222]

E.8. Compliance with the emission limitations of Conditions E.6 and E.7 shall be determined using EPA Methods 1, 2, 4, 5, 9 and 13A or 13B contained in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-297, F.A.C. The actual production rate shall be specified in each test report. Failure to include the actual production rate in the report may invalidate the test.
[Rule 62-297, F.A.C., Air Construction Permit AC53-260190/PSD-FL-222]

E.9. The Department's Bureau of Air Regulation Office in Tallahassee and the Southwest District Office shall be notified in writing at least 15 days prior to any emission test.
[Rule 62-297.310, F.A.C., Air Construction Permit AC53-260190/PSD-FL-222]

E.10. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650, F.A.C.]

E.11. The Prilled MAP Plant shall be subject to the following:

a. Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hour in any 24 hour period unless specifically authorized by the Department for longer duration.
b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
c. Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
d. In case of excess emissions resulting form malfunctions, each source shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700, F.A.C., Air Construction Permit AC53-260190/PSD-FL-222]

Monitoring of Operations

E.12. In order to provide reasonable assurance, when the MAP Plant and MAP Loadout System are operating, that the pollution control system is operating properly, the permittee shall comply with Facility-wide Condition No. 9.
[Rule 62-4.070(3), F.A.C.].

E.13. In order to provide reasonable assurance that the pollution control system is operating properly, the permittee shall create and keep a record log of the scrubber operating parameters. The record log shall contain, at a minimum:

a. the volumetric liquid flow rate (gallons per minute),
b. the scrubber pressure drop (inches of water),
c. the date and time of the measurements, and
d. the name of the person responsible for performing the measurements.

A log entry shall be made at least once for every day that the MAP Plant operates.

NOTE: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.
[Rules 62-4.070(3), 62-4.160(14)(b), 62-4.160(14)(c), and 62-213.440(b)2.b., F.A.C.]

E.14. In order to provide reasonable assurance that the pollution control system is operating properly, the permittee shall create and keep a record log of the baghouse operating parameters. The record log shall contain, at a minimum:

b. the pressure drop (inches of water),
c. the date and time of the measurements, and
d. the name of the person responsible for performing the measurements.

A log entry shall be made at least once for every 8 hour shift that the MAP Loadout System operates.

NOTE: The permittee may substitute continuous monitoring and strip chart recordings for the manual recordkeeping required by this Condition.
[Rules 62-4.070(3), 62-4.160(14)(b), 62-4.160(14)(c), and 62-213.440(b)2.b., F.A.C.]

Recordkeeping and Reporting Requirements

E.15. In order to comply with Condition E.1, the permittee shall maintain hourly records of the MAP production rate.
[Rule 62-213.440(1), F.A.C.]