

Memorandum

Florida Department of Environmental Protection

6/28 al
Signed. Ready
to go.
Clair

TO: C. H. Fancy
FROM: A. A. Linero *AA Linero*
DATE: June 26, 1995
SUBJ: US Agri-Chemicals Corp. / PSD-FL-222

Attached for your review and approval is a BACT determination, technical evaluation and preliminary determination and proposed permit for the above company to construct a 60 TPH Prilled Monoammonium Phosphate plant in Fort Meade.

Since this is an uncommon process and the BACT emission criteria for the most recent similar installation (operated by IMC-Agrico) are 15 years old, we recommend doing an after-the-fact BACT determination such as we did for Steve Smallwood's permit (the wood/tire burning power plant operated by Decker Energy-Ridge near Lakeland). We are proposing to review the capabilities of their control equipment design prior to construction and then set emission limits after test results are available. This approach seems to be working well for the Decker-Ridge project.

If you have any questions, please advise.

AAL/jr

The applicant has agreed to do after-the-fact BACT determination based on actual performance.
Clair - We are requiring scrubbers used in roughly similar applications to achieve
99.5% Fluoride control and 99.5% PM removal for particles larger than 5µ.



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 29, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Dear Mr. Susick:

Attached is one copy of the Technical Evaluation and Preliminary Determination, Best Available Control Technology (BACT) determination, Intent to Issue, and proposed permit for US Agri-Chemicals Corp. to construct a 60 tons per hour prilled monoammonium phosphate plant at the existing facility in Fort Meade, Polk County, Florida. Also included is the Notice of Intent to Issue for you to publish as indicated.

Please submit any written comments to be considered concerning the Department's proposed action to Mr. A. A. Linero at the above address. If you have any questions regarding this matter, please call Mr. John Reynolds at 904-488-1344.

Sincerely,

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

CHF/jr/t

Attachments

CC: W. Thomas, SWD
L. Novak, Polk Co.
J. Harper, EPA
J. Bunyak, NPS
J. Koogler, K&A

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

DEP File No. PSD-FL-222
AC 53-260190
Polk County

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

INTENT TO ISSUE

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy attached) to the applicant's facility as detailed in the application/request specified, above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, US Agri-Chemicals, Corp., submitted a complete application on April 4, 1995, to the Department for a permit to construct a 60 tons per hour prilled monoammonium phosphate plant at their facility located in Polk County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a permit is required for the proposed work.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

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

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

The Petition shall contain the following information;

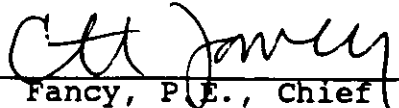
- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c)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

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

request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE PERMIT AMENDMENT all copies were mailed by certified mail before the close of business on 6-29-95 to the listed persons.

Clerk Stamp

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


Clerk 6/29/95
Date

Copies furnished to:
B. Thomas, SWD
L. Novak, Polk Co.
J. Harper, EPA
J. Bunyak, NPS
J. Koogler, K&A

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF INTENT TO ISSUE PERMIT

PSD-FL-222

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit to US Agri-Chemicals, Inc., 3225 State Road 630 West, Fort Meade, Florida 33841. This company operates a phosphate fertilizer manufacturing facility at that address. The permit will allow the construction of a 60 tons per hour prilled monoammonium phosphate plant. A determination of Best Available Control Technology (BACT) was required since the proposed project is subject to Prevention of Significant Deterioration (PSD) regulations. Fluoride and particulate matter emissions from the tower and cooler will be controlled using a state-of-the-art scrubbing system while a fabric filter will control product loadout emissions. Modeling indicates that emissions from the new facility are not expected to have any adverse environmental impact. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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

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

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

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

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Department of Environmental Protection
Southwest District
8407 Laurel Fair Circle
Tampa, Florida 33619

Any person may send written comments on the proposed action to Administrator, New Source Review at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person(s). Such requests must be submitted within 30 days of this notice.

Technical Evaluation
and
Preliminary Determination

US Agri-Chemicals Corp.
Prilled Monoammonium Phosphate Plant
Polk County
Fort Meade, Florida

Permit Number
PSD-FL-222
AC 53-260190

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

June 30, 1995

I. Application Information

A. Applicant

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

B. Request

The Department received a complete application on April 4, 1995 from U.S. Agri-Chemicals Corporation to construct a 60 tons per hour (TPH) prilled monoammonium phosphate (MAP) plant at its agricultural chemical facility in Fort Meade.

C. Classification

The applicant's facility (SIC 2874) is located at 3225 State Road 630 West, Fort Meade, Polk County, Florida. Latitude and longitude are 27/44/25 and 81/51/05 respectively. UTM coordinates of the site are: Zone 17, 416 km E and 3,069 km N.

II. Project Description/Emissions

The applicant proposes to construct a 60 TPH prilled MAP plant based on the Swift prill tower process. In this process, diluted wet process phosphoric acid is reacted with ammonia vapor in a pipe reactor positioned at the top of a louvered tower. Solid MAP particles called "prills" are formed immediately from the highly exothermic reaction and fall into a hopper at the bottom of the tower. Part of the reaction heat is transferred to the upflowing tower air while the remainder of the product heat is removed in a separate air cooler. Exhaust streams from both the tower and the cooler are routed to the scrubbing system. This process offers the advantage of avoiding the granulation step required for granular products while incurring the disadvantage of occasional plugging of the pipe reactor. Equipment and operating costs are substantially less than required for the conventional granulation process.

Emissions of primary concern are gaseous fluorides (SiF_4 and HF), ammonia, and particulate matter (PM/PM10) from the tower, cooler and product loadout area. With the exception of the product loadout and process heating emissions which are relatively minor, up-to-date emission factors for these pollutants are not readily available for this project. For this reason, the Department will establish emission limits after the air pollution control equipment has been installed and tested. To provide assurance that only state-of-the-art equipment representative of BACT control technology will be installed, the applicant must submit engineering calculations and design drawings to the Department sufficient to show that the equipment selected is capable of achieving removal efficiencies that are equivalent to those typically required for

other processes in the industry. These removal efficiencies have been determined by the Department to be a minimum of 99.3% for gaseous fluorides and 99% for PM/PM10 over 5 microns.

The following emission projections are rough estimates and should not be relied on except for indicating PSD applicability:

	<u>Applicant's Proposed Maximum Emissions</u> (tons per year)	<u>PSD-Significant Emission Rate</u> (tons per year)	<u>PSD Applies</u>
Fluorides	5.8	3.0	Yes
PM/PM10	124.7	25.0/15.0	Yes
NOx	7.4	40.0	No
SO2	0.03	40.0	No
CO	1.8	100.0	No
O3 (VOC)	0.3	40.0	No

III. Rule Applicability

The construction permit application is subject to review under Chapter 403, Florida Statutes (F.S.), and Chapters 62-209 through 62-297 and 62-4, F.A.C. The facility is located in an area designated as attainment for all criteria pollutants (Rule 62-275.400, F.A.C.). The proposed project is subject to the preconstruction review requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) since the proposed increases in PM/PM10 and fluoride emissions exceed the significant levels set forth in Table 212.400-2 of Chapter 62-212, F.A.C. Unreacted ammonia will also be emitted but since ammonia is not a regulated pollutant, the Department does not require emission limits for ammonia. Excess ammonia emissions will be restricted by application of the Objectionable Odor Rule (Rule 62-296.320(2), F.A.C.).

IV. Air Quality Analysis

The proposed project will emit PM/PM10 and fluorides in PSD-significant amounts. Impacts from PM are no longer included in the air quality impact analysis since the Ambient Air Quality Standards (AAQS) and increments are designated for PM10 only. Allowable values proposed by the applicant for these pollutants were used in the air quality modeling and are shown in Table 1.

The air quality impact analysis required by the PSD regulations for these pollutants includes:

- * An analysis of existing air quality;
- * A PSD increment analysis (for PM10);
- * An Ambient Air Quality Standards (AAQS) analysis (for PM10);
- * An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts; and
- * A "Good Engineering Practice" (GEP) stack height determination.

The analysis of existing air quality generally relies on preconstruction monitoring data collected with EPA-approved

methods. The PSD and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Florida Department of Environmental Protection has determined that the application complies with the applicable provisions of the stack height regulations as reviewed by EPA on July 8, 1985 (50 FR 27895). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A discussion of the modeling procedure and required analyses follows.

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review. However, an exemption to the monitoring requirement can be obtained if the maximum air quality impact, as determined by air quality modeling, is less than a pollutant-specific "de minimus" level. Pollutants which do not have a specified de minimus level may also be exempt from preconstruction monitoring requirements. In addition, if an acceptable ambient monitoring method for the pollutant has not been established by EPA, monitoring is not required.

Table 2 shows that the maximum PM₁₀ and fluoride impacts from the proposed project are predicted to be greater than the applicable de minimus levels. Therefore, an ambient monitoring analysis is required for PM₁₀. The Department is not requiring preconstruction monitoring for fluoride because there are no EPA-approved monitoring methods for fluoride.

Previously existing representative monitoring data from the PM₁₀ monitor in Gibsonton was used to fulfill the monitoring requirement for PM₁₀ and to establish a background concentration for use in the AAQS analysis. The background concentration for PM₁₀ was set at 30 ug/m³ for both the 24-hour and annual averaging periods.

The EPA-approved Industrial Source Complex (ISC2) dispersion model was used to evaluate pollutant emissions from the proposed project, the adjacent U.S. Agri-Chemicals facilities and other existing major facilities. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. This model allows for the separation of sources, building wake downwash, and various other input and output

features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant has used the EPA recommended regulatory options in each modeling scenario. Direction-specific downwash parameters were used because the stacks were less than the good engineering practice (GEP) stack height.

Meteorological data used in the modeling consisted of a concurrent five year period (1987-1991) of hourly surface observations and twice daily upper air soundings from the National Weather Service (NWS) station at Tampa, Florida. Since five years of data were used, the highest second-highest short-term predicted concentrations were compared with the appropriate AAQS or PSD increments. For the annual averages, the highest predicted yearly average was compared with the standards. For determining the significant impact area, both the highest short-term predicted concentrations and the highest predicted yearly averages were compared to the significant impact levels.

Receptors were placed at locations considered to be ambient air. Discrete receptors (180) were placed along the property boundary. Additional receptors were established by a polar grid system extending out 10 km from the plant. They were placed at the distances of 750, 1000, 1250, 1500, 1750, 2000, 3000, 4000, 5000, 6000, 7500, 10000 meters from the plant, along 36 radials with each radial spaced at 10 degree intervals. The Chassahowitzka National Wilderness Area (CNWA) is a PSD Class I area located approximately 125 km from the site. CNWA is represented by 13 discrete receptors located along the boundary of the Class I area.

A summary of impacts from the PM10 modeling analysis are presented in Table 2 and compared to the significant impact levels. The maximum impacts are above the respective PM10 significant impact levels. Therefore, a full impact assessment was performed for this pollutant. Maximum PM10 impacts predicted at CNWA for comparison to the National Park Service (NPS)-recommended Class I significance levels are presented in Table 3. They are below the NPS Class I PM10 24-hour and annual significance levels. Therefore, no further Class I modeling analysis was conducted.

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. Atmospheric dispersion modeling, as previously described, was performed to quantify the amount of PSD increment consumed. The modeling results, summarized in Table 4, indicate that the maximum PM10 increment consumption will not exceed the allowable PSD increments.

For pollutants subject to an AAQS review, the total impact on ambient air is obtained by adding a background concentration to the maximum modeled concentration. The 1994 monitoring result from Gibsonton station was used to determine the background concentration. The results of the AAQS analysis are summarized in Table 5. Emissions from the proposed project are not expected to cause or contribute to a violation of an AAQS.

The maximum impacts of toxic air pollutants that will be emitted by the proposed project are presented in Table 6. Fluoride impacts are included in this analysis. Each pollutant's maximum 8-hour, 24-hour, and annual impact is compared to the Department's draft Ambient Reference Concentration (ARC). As shown in the table, all predicted impacts are less than their respective ARC.

The maximum ground-level concentrations predicated to occur for PM10, as a result of the proposed project, including a background concentration and all other nearby sources, will be below the AAQS. The AAQS are designed to protect both the public health and welfare. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area. An Air quality related values (AQRV) analysis was done by the applicant for the Class I area. No significant impacts on this area are expected.

The EPA-approved Level I visibility computer model VISCREEN was used to estimate the impact of proposed project's stack emissions upon visibility in the CNWA. Results of the Level I visibility impairment analysis demonstrate that all contract parameters have values less than the threshold values. Thus, emissions from the proposed facility will not have a significant impact on visibility in this area.

The proposed project will require a minimal increase in personnel to operate the plant. The increase in production may cause a slight increase in vehicular traffic but the impact on traffic in the area will be negligible. The project is not expected to have a significant impact on the residential, commercial, and industrial growth in Polk County.

Good Engineering Practice (GEP) stack height means the greater of: (1) 65 meters or (2) the maximum nearby building height plus 1.5 times the building height or width, whichever is less. The stacks for this project will be 21.95 meters and 15.24 meters, respectively. These stacks will not exceed the GEP stack height and will comply with GEP stack height regulations. The potential for building downwash to occur was considered in the modeling analysis for these stacks since they will be less than GEP.

V. Conclusion

Based on the information provided by US Agri-Chemicals Corp., the Department has reasonable assurance that the proposed project, as proposed herein, will not cause or contribute to a violation of an ambient air quality standard, PSD increment, or any other technical provisions of Chapters 62-209 through 62-297 of the Florida Administrative Code.

Table1. Significant and Net Emission Rates (Tons Per Year)

Pollutant	Existing Emissions (Actual)	Proposed Maximum Emissions	Net Emission Increases	Significant Emission Rate	Applicable Pollutant (Yes/No)
CO	0	1.8	1.8	100	No
NO _x	0	7.4	7.4	40	No
SO ₂	0	0.03	0.03	40	No
PM	0	124.7	124.7	25	Yes
PM10	0	124.7	124.7	15	Yes
O ₃ (VOC)	0	0.3	0.3	40	No
Fluoride	0	5.8	5.8	3.0	Yes

Table 2. Maximum Air Quality Impacts for Comparison to the Significant Impact and De Minimus Ambient Levels.

Pollutant	Avg. Time	Predicted Impact (ug/m3)	Significant Impact Level (ug/m3)	De Minimus Level (ug/m3)
PM10	24-hour	20.43	5.0	10.0
	Annual	2.02	1.0	NA
Fluoride	24-hour	1.56	NA	0.25

Table 3. Maximum Air Quality Impacts Analysis for Class I Area

Pollutant	Avg. Time	Maximum Predicted Impact (ug/m3)	National Park Service (NPS) Significant Impact Level (ug/m3)
PM10	24-hour	0.075	0.27
	Annual	0.0046	0.08

Table 4. PSD Class II Increment Analysis

Pollutant	Avg. Time	Maximum Predicted Impact (ug/m3)	Allowable Increment (ug/m3)
PM10	24-hour	28.43	30
	Annual	4.43	17

Table 5. Ambient Air Quality Impact

Pollutant	Avg. Time	Modeled Source Impact (ug/m3)	Background Concentration (ug/m3)	Maximum Predicted Impact (ug/m3)	Florida AAQS (ug/m3)
PM10	24-hour	92	30	122	150
	Annual	17.7	30	47.7	50

Table 6. Air Toxic Analysis

Pollutant	Avg. Time	Maximum Predicted Impact (ug/m3)	Ambient Reference Concentration (ug/m3)
Fluoride	8-hour	2.75	16
	24-hour	1.56	3.84
	Annual	0.14	50
NH ₃	8-hour	34.6	170
	24-hour	19.6	40.8
	Annual	1.13	100

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

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

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

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
 Stephen G. Susick, PE.
 US Agri-Chemicals, Corp
 3225 State Rd 630 West
 Ft. Meade, FL
 33841-9799

4a. Article Number
 Z 392 979 010

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

7. Date of Delivery

5. Signature (Addressee)
 Yvonne Washington

6. Signature (Agent)

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

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Z 392 979 010



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

PS Form 3800, March 1993

Sender Stephen G. Susick	
Street and No. US Agri Chem	
P.O., State and ZIP Code Ft. Meade, FL	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date 6-29-95 AP 53-260190 PSD-F1-222	



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:
US Agri-Chemicals Corp.
3225 State Road 630 West
Fort Meade, FL 33841-9799

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: June 30, 1997
County: Polk
Latitude/Longitude: 27°44'25"N
81°51'05"W
Project: 60 TPH Prilled MAP
Plant

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, 212, 272, 275, 276, and 297, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the emission unit shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department of Environmental Protection (Department) and specifically described as follows:

For the construction of a 60 TPH Prilled MAP Plant with state-of-the-art air pollution control equipment to be approved by the Department prior to construction and emission limits set after construction and testing. The facility is located at 3225 State Road 630 West, Fort Meade, Polk County, Florida. The UTM coordinates are Zone 17: 416 km East and 3,069 km North.

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

Attachments are listed below:

1. DEP's letter dated November 23, 1994
2. USDOJ's letter dated December 15, 1994
2. DEP's letter dated February 17, 1995
3. K&A's letter dated March 2, 1995
4. K&A's letter dated March 20, 1995
5. K&A's letter dated March 29, 1995
6. K&A's letter dated March 31, 1995

PERMITTEE:
US Agri-Chemicals Corp.

Permit Number: AC 53-260190
PSD-FL-222
Expiration Date: June 30, 1997

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, 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 the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or 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

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credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, 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 F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

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11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- (X) Determination of Prevention of Significant Deterioration (PSD)
- () 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:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

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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 that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. Unless otherwise indicated, the construction and operation of the subject Prilled MAP production facility shall be in accordance with the capacities and specifications stated in the application.
2. Pursuant to Rule 62-212.200(56), F.A.C., the production rate of the Prilled MAP plant shall not exceed 60 tons MAP product per hour.
3. Pursuant to Rule 62-212.200(56), F.A.C., the Prilled MAP plant may operate up to 8760 hours per year.
4. Pursuant to Rule 62-212.410, F.A.C., PM/PM10 emissions from the Prilled MAP plant loadout baghouse shall not exceed 5% opacity.
5. Pursuant to Rule 62-212.410, F.A.C., emissions of fluorides and PM/PM10 from the prill tower shall meet the requirements for Best Available Control Technology. Limits for these pollutants shall be determined by the Department's Bureau of Air Regulation (BAR) in Tallahassee, Florida, within 45 days following receipt by BAR of the performance test results required in Specific Condition No. 6. As soon as the design of the air pollution control system is finalized, the permittee shall submit all efficiency calculations and drawings of the system to the BAR in Tallahassee for approval.
6. Pursuant to Rule 62-297.340(1)(a), F.A.C., and before this construction permit expires, performance testing for fluorides and PM/PM10 shall be conducted on the prill tower scrubber stack and for opacity from the product loadout baghouse with the emission unit operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than capacity (i.e., less than 90 percent of maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit.

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7. Pursuant to Rule 62-297.340(1)(i), the Department's Southwest District office shall be notified in writing at least 15 days prior to the performance test. Pursuant to Rule 17-297.570(1) and (2), written reports of the test results shall be submitted to that office and the BAR office in Tallahassee within 45 days of test completion.

8. Pursuant to Rules 62-296.800 and 62-297.401, F.A.C., the test procedures for fluorides shall be in accordance with EPA Reference Methods 1, 2, 3, and 13A or 13B, as published in 40 CFR 60, Appendix A. The test procedures for PM/PM10 shall be in accordance with EPA Reference Methods 1, 2, 3, 5 and 9 as published in 40 CFR 60, Appendix A.

9. Pursuant to Rule 62-296.320(2), F.A.C., Objectionable Odor Prohibited, no person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

10. Pursuant to Rule 62-210.650, F.A.C., Circumvention, 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.

11. Pursuant to Rule 62-210.700, Excess Emissions, the Prilled MAP plant is subject to the following:

a. Rule 62-210.700(1): 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 hours in any 24 hour period unless specifically authorized by the Department for longer duration.

b. Rule 62-210.700(4): 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. Rule 62-210.700(5): 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. Rule 62-210.700(6): In case of excess emissions resulting from malfunctions, each source shall notify the Department or the appropriate Local Program 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.

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12. Pursuant to Rules 62-210.370(2)(a) and (b), F.A.C., Reports, the permittee shall submit an Annual Operating Report using DEP Form 62-210.900(4) to the Department's Southwest District office by March 1 of the following year for the previous year's operation.

13. Pursuant to Rule 62-4.090, F.A.C., the permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit.

14. Pursuant to Rules 62-4.055 and 62-4.220, F.A.C., an application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit.

Issued this _____ day
of _____, 1995

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**

Virginia B. Wetherell, Secretary

Best Available Control Technology (BACT) Determination
U.S. Agri-Chemicals Corporation
Fort Meade, Polk County, Florida
PSD-FL-222
AC53-260190

The applicant proposes to construct a 60 tons per hour (TPH) prilled monoammonium phosphate (MAP) plant at its agricultural chemical facility in Fort Meade. The proposed project will result in a significant increase in emissions of particulate matter (PM-PM10) and gaseous fluorides (SiF₄ and HF). The project is, therefore, subject to Prevention of Significant Deterioration (PSD) review in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). The BACT determination is part of the review required by Rule 62-212.410, F.A.C.

Date of Receipt of Complete Application: April 4, 1995

BACT Determination Proposed by Applicant:

Emission Limits: Tower & Cooler - 0.0417 lb F/ton P₂O₅ input
- 0.40 lb PM-PM10/ton MAP
Product Loadout - 0.072 lb PM-PM10/ton MAP

Control Technology: - Medium-energy venturi scrubber using recycled pond water (for tower and cooler)
- Baghouse (for product loadout)
- Natural Gas (for process heater)

BACT Determination Procedure:

In accordance with F.A.C. Chapter 62-212, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, Rule 62-212.410(1), F.A.C., states that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, 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).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.