

Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

May 11, 1990

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. John A. Brafford
Vice President & General Manager
IMC Fertilizer, Inc.
P. O. Box 1035
Mulberry, Florida 33860

Dear Mr. Brafford:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for IMC to construct an additional DAP cooler and scrubber at the Mulberry facility.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Barry Andrews at the above address.

Sincerely,

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

CHF/JR/plm

Attachments

c: B. Thomas, SW District
C. Pflaum, P.E.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

IMC Fertilizer, Inc.
P. O. Box 1035
Mulberry, Florida 33860

DER File No. AC 53-177264

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, IMC Fertilizer, Inc., applied on March 7, 1990, to the Department of Environmental Regulation for a permit to construct an additional DAP cooler and air pollution control system at their facility in Mulberry, Polk County, Florida.

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

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

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

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

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

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

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

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) 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 in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such

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

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



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

Copies furnished to:

B. Thomas, SW District
C. Pflaum, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 5-11-90.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Kern Cohen
Clerk

5-11-90
Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to IMC Fertilizer, Inc., Highway 640 & County Line Road, Mulberry, Florida 33860 to construct a Diammonium Phosphate Cooler and air pollution control system at their No. 2 Diammonium Phosphate facility in Polk County. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the

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

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

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

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

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

Technical Evaluation
and
Preliminary Determination

IMC Fertilizer, Inc.
Mulberry, Polk County, Florida

Additional Cooler - DAP No. 2
Permit No. AC 53-177264

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

May 11, 1990

I. Application

A. Applicant

IMC Fertilizer, Inc.
New Wales Operations
P. O. Box 1035
Mulberry, Florida 33860

B. Request

The Department received a complete application on March 7, 1990, for a permit to construct an additional cooler and scrubber for the No. 2 DAP Plant at the applicant's phosphate fertilizer facility in Mulberry, Polk County, Florida.

C. Classification/Location

The applicant's phosphate fertilizer manufacturing facility (SIC Code 2874) is located in Polk County at Highway 640 and County Line Road. UTM coordinates of the site are 396.7 km E and 3079.4 km N.

II. Project Description/Emissions

It is proposed to construct a second cooler for the No. 2 Diammonium Phosphate (DAP) Plant to solve product quality problems associated with high product temperatures. Additional product cooling capacity is necessary since production from both trains of the No. 2 DAP plant has been increased considerably beyond design rates. DAP 2E will use the new cooler while the existing cooler will handle material from DAP 2W. Both coolers will discharge into the existing product elevator. New conveying equipment and an air handling system will be installed for the new cooler. Pollution control equipment will consist of a multicyclone followed by a venturi/cyclonic scrubber using pond water and fresh water. Scrubber effluent will be used in the wet rock grinding facility or recirculated to the cooling pond. Equipment to be installed will include the following:

- rotary cooler (12 ft. dia. x 55 ft., 200 TPH capacity)
- feed conveyor for new cooler
- product conveyor/elevator to transfer product from new cooler to existing product elevator
- four cluster cyclone (6" P.D.)
- venturi scrubber with cyclonic separator (16" P.D., 80,000 ACFM) using mixture of fresh water, pond water, and ammonia vaporizer condensate
- two scrubber recycle pumps (800 gpm)
- scrubber exhaust fan (500 HP)
- stack (5 ft. dia. x 170 ft.)

Estimated emissions resulting from this installation are listed below:

Pollutant	Emission Limit	lbs/hr	tons/yr
Particulate Matter	0.011 gr/DSCF	6.2	24.5
Fluorides	0.06 lb/ton P ₂ O ₅ *	3.86*	15.2*

* total fluorides from the new cooler and existing DAP 2E reactor, granulator, dryer, screens and mills.

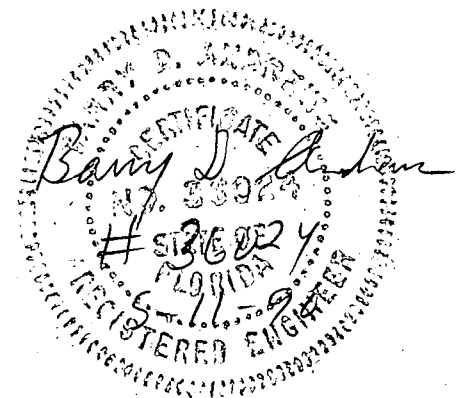
Particulate emissions are based on the scrubber vendor's calculations of 99.9% overall efficiency. Actual fluoride emissions from the new cooler will be very low since fluorides are evolved primarily during the reaction, granulation and drying steps.

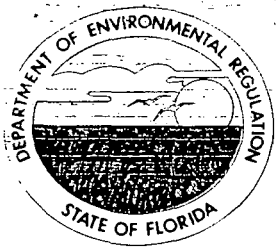
III. Rule Applicability

The proposed installation is subject to review under provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. Since the facility is major for particulate matter and is located in a county designated as an attainment area for particulate matter, the project would be subject to the new source review requirements of Rule 17-2.500(5) if it resulted in an emissions increase of at least 25 tons per year. However, the applicant has requested an increase in allowable emissions of less than 25 tons per year, therefore PSD review is not required. The general particulate emissions limiting standards in F.A.C. Rule 17-2.610(1) would apply to the new cooler except that the applicant has accepted a limit of 0.011 gr/DSCF to avoid PSD review. The federal new source performance standard for fluorides, 40 CFR 60, Subpart V, will apply to the new cooler scrubber in that total fluoride emissions from the modified DAP 2E unit must not exceed 0.06 lbs/ton P₂O₅ input.

IV. Conclusion

Based on the information provided by IMC, the Department has reasonable assurance that the proposed DAP cooler project, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.





Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:
IMC Fertilizer, Inc.
P. O. Box 1035
Mulberry, Florida 33860

Permit Number: AC 53-177264
Expiration Date: Dec. 31, 1991
County: Polk
Project: Additional Cooler -
DAP No. 2

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

For the construction of an additional cooler and air pollution control system for the No. 2 DAP plant. This project will be located at the applicant's facility in Mulberry, Polk County, Florida. The UTM coordinates of this site are Zone 17, 396.7 km E and 3,079.4 km N.

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

Attachments are listed below:

1. Application to Operate/Construct Air Pollution Sources, DER Form 17-202(1), received on March 7, 1990.

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-177264
Expiration Date: December 31, 1991

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-177264
Expiration Date: December 31, 1991

GENERAL CONDITIONS:

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 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.

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-177264
Expiration Date: December 31, 1991

GENERAL CONDITIONS:

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 proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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

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

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

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-177264
Expiration Date: December 31, 1991

GENERAL CONDITIONS:

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.

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

SPECIFIC CONDITIONS:

1. This permit and the following specific conditions apply only to the DAP 2E cooler and its air pollution control equipment. This permit does not change any conditions of the current permits (AO 53-106293 and AO 53-134734) for this facility.

2. The construction and operation of the 1AP 2E cooler and its air pollution control equipment shall be in accordance with the capacities and specifications stated in the application.

3. Product rate through the DAP 2E cooler shall not exceed 140 tons per hour and 1,103,760 tons per year.

4. The DAP 2E cooler may operate up to 7884 hours per year.

5. Particulate matter emissions from the DAP 2E cooler scrubber shall not exceed 6.2 pounds per hour and 24.5 tons per year.

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-177264
Expiration Date: December 31, 1991

SPECIFIC CONDITIONS:

6. Fluoride emissions from the DAP 2E cooler scrubber shall not result in an exceedance of the 0.06 pound per ton P_2O_5 standard which covers the entire DAP 2E unit operating at its maximum permitted operating rate. For the typical P_2O_5 content of 46 percent, the maximum fluoride emission rate for the entire process is $140 \text{ TPH} \times 0.46 \times 0.06 = 3.86$ pounds per hour (15.2 tons per year).

7. All reasonable precautions that apply under F.A.C. Rule 17-2.610(3) shall be implemented to limit unconfined emissions of particulate matter from any activity associated with this project.

8. Within 60 days after initial startup, the DAP 2E cooler scrubber shall be tested for particulate matter and fluoride emissions. Test procedures shall be in accordance with EPA reference methods 1, 2, 3, 5 and 13A or 13B as published in 40 CFR Part 60, Appendix A. The Department's Southwest District office shall be notified in writing at least 5 days prior to initial startup and at least 15 days prior to the compliance test. The test shall be conducted at permitted production capacity or no less than 90 percent thereof. P_2O_5 input, pH of scrubber water, and scrubber pressure drop shall be reported along with the test data. Results of the compliance test shall be reported to the Department's Southwest District office within 45 days of test completion.

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

10. An application for an operation permit must be submitted to the Department's Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-177264
Expiration Date: December 31, 1991

Issued this _____ day
of _____, 1990

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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