

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

March 1, 1993

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 Air Classifier with bag collector at the New Wales Animal Feed Ingredients facility near Mulberry.

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

Sincerely,

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

CHF/JR/kbw

Attachments

cc: B. Thomas, SW District
C. Turley, P.E.

P 360 185 710



Receipt for Certified Mail

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

Sender	
John Bradford	
JMC Fertilizer	
Mulberry, 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 of Date 3-2-93	
AC 53-222859	
PSD-FI-199	

PS Form 3800, June 1991

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
 John A. Bradford, VP
 JMC Fertilizer, Inc
 PO BOX 1035
 Mulberry, FL
 33860

4a. Article Number
 P 360 185 710

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

7. Date of Delivery
 3/4/93

5. Signature (Addressee)

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

6. Signature (Agent)

M J Harris

Thank you for using Return Receipt Service.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

DER File No. AC 53-222859
PSD-FL-199
Polk County

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

INTENT TO ISSUE

The Department of Environmental Regulation 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 in the attached Technical Evaluation and Preliminary Determination.

The applicant, IMC Fertilizer, Inc., applied on December 7, 1992, to the Department of Environmental Regulation for a permit to construct an air classifier and air pollution control system at their Animal Feed Ingredients facility in Mulberry, Polk County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code (F.A.C.) Chapters 17-212 and 17-4. The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, Florida Statutes and 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's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

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

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

The Petition shall contain the following information:

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

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

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

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

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

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

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

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

approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



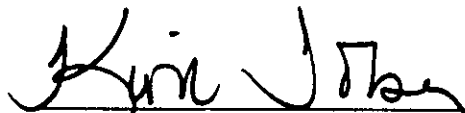
C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 3-2-93 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

3-2-93
Date

Copies furnished to:

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

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

The Department of Environmental Regulation gives notice of its intent to issue a permit to IMC Fertilizer, Inc., Highway 640 & County Line Road, Mulberry, Florida 33860 to construct an air classifier and air pollution control system at their Animal Feed Ingredient facility in Polk County. A determination of Best Available Control Technology (BACT) is required. The proposed project is subject to Prevention of Significant Deterioration (PSD) regulations. Modeling results show that increases in ground-level concentrations are less than the significant impact levels for applicable pollutants. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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

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

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

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

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

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

Department of Environmental Regulation
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619-8218

Any person may send written comments on the proposed action to Mr. Preston Lewis 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

IMC Fertilizer, Inc.
Mulberry, Polk County, Florida

Air Classifier/Bag Collector
Animal Feed Ingredients Plant
Permit No. AC 53-222859
PSD-FL-199

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

March 1, 1993

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 December 7, 1992, for a permit to construct an air classifier system and bag collector for the Animal Feed Ingredients 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 an air classifier system for the Animal Feed Ingredients (AFI) Plant to solve product particle size problems associated with the existing equipment. Pollution control equipment will consist of a new cyclone followed by a bag collector. Other equipment to be installed will include a surge bin with rotary air lock, air classifier with inlet blower, cyclone exhaust fan (58000 CFM), and stack (4.5 ft. dia. x 145 ft.)

Estimated particulate matter emissions (PM and PM₁₀) resulting from this installation are listed below:

<u>Emission Limit Basis</u>	<u>lbs/hr</u>	<u>tons/yr</u>
0.015 gr/SCF	7.5	32.7

Particulate emissions are based on the BACT determination of 99.9% overall efficiency. No fluorides will be emitted since the process uses defluorinated phosphoric acid.

III. Rule Applicability

The proposed installation is subject to review under provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C) Chapter 17-212, 17-296, 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 is subject to the new source review requirements of F.A.C. Rule 17-212 since the emissions increase is over 25 tons per year. Therefore PSD review is required and the emission limit has been established by the BACT determination.

IV. Air Quality Analysis

A. Introduction

The proposed project will result in emissions increases which are projected to be greater than the PSD significant emission rates for two pollutants: PM and PM10. Therefore, the project is subject to the PSD NSR requirements contained in F.A.C. Rule 17-212.400 for these pollutants. Part of these requirements is an air quality impact analysis for these pollutants which includes:

- * An analysis of existing air quality;
- * A PSD increment analysis;
- * An Ambient Air Quality Standards (AAQS) analysis;
- * 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 increment and AAQS analysis depends on the air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on the required analysis, the Department has reasonable assurance that the proposed IMC project as described in this report and subject to the approval proposed herein, will not cause or contribute to a violation of any ambient air quality standard or PSD increment. A discussion of the modeling methodology and required analysis follows.

B. Analysis of Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review.

An exemption to the monitoring requirement can be obtained if the maximum air quality impact resulting from the predicted emissions increase, as determined by air quality modeling, is less than a pollutant-specific "de minimus" concentration.

The predicted maximum concentration increases for both PM and PM10 is 4.45 ug/m³. These increases are less than the PSD de minimus concentration level for these two pollutants, which is 10 ug/m³, 24-hour average. Therefore, no preconstruction monitoring analysis is required for these pollutants.

C. Modeling Methodology

The EPA-approved Industrial Source Complex Short-Term (ISCST2) dispersion model was used to evaluate the pollutant

Class I area located 103 km away. Based on this analysis the maximum predicted visual impacts due to the proposed project are less than the screening criteria both inside and outside the Class I area. No significant impacts on the Class I area from this project are expected.

In addition, the maximum predicted concentrations from PM and PM10 are predicted to be less than the AAQS, including the national secondary standards designed to protect public-welfare related values. As such, no harmful effects on soil and vegetation are expected in the area of the project. Also, the proposed modification will not significantly change employment, population, housing or commercial/industrial development in the area to the extent that a significant air quality impact will result.

V. Conclusion

Based on the information provided by IMC, the Department has reasonable assurance that the proposed air classifier 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 provisions of the air pollution rules of the Florida Administrative Code.

[Handwritten signature]
#41755



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

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

Permit Number: AC53-222859
PSD-FL-199
Expiration Date: Jan. 31, 1994
County: Polk
Project: Air Classifier Bag
Collector - AFI
Plant

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-212 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of an air classifier system and bag collector for the Animal Feed Ingredients 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 December 7, 1992.

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-222859
PSD-FL-199
Expiration Date: January 31, 1994

GENERAL CONDITIONS:

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

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-222859
PSD-FL-199
Expiration Date: January 31, 1994

GENERAL CONDITIONS:

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

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

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

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

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-222859
PSD-FL-199
Expiration Date: January 31, 1994

GENERAL CONDITIONS:

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. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) 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.

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-222859
PSD-FL-199
Expiration Date: January 31, 1994

GENERAL CONDITIONS:

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.

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. The construction and operation of the air classifier system and its air pollution control equipment shall be in accordance with the capacities and specifications stated in the application.
2. Product rate through the air classifier shall not exceed 125 tons per hour and 1,095,000 tons per year.
3. The air classifier may operate up to 8760 hours per year.
4. Visible emissions from the air classifier stack shall not exceed 5 percent opacity.
5. Particulate matter emissions from the air classifier stack shall not exceed 7.5 pounds per hour and 32.7 tons per year (based on 0.015 gr/SCF).
6. All reasonable precautions that apply under F.A.C. Rule 17-296.310 shall be implemented to limit unconfined emissions of particulate matter from any activity associated with this project.
7. Within 60 days after initial startup, the air classifier bag collector stack shall be tested for particulate matter. The first compliance test shall be in accordance with EPA Method 5. Test procedures thereafter shall be in accordance with DER Method 9. 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

PERMITTEE:
IMC Fertilizer, Inc.

Permit Number: AC 53-222859
PSD-FL-199
Expiration Date: January 31, 1994

SPECIFIC CONDITIONS:

permitted production capacity or no less than 90 percent thereof. Results of the compliance test shall be reported to the Department's Southwest District office within 45 days of test completion.

8. 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).

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

Issued this _____ day
of _____, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Virginia B. Wetherell, Secretary
Department of Environmental
Regulation

Best Available Control Technology (BACT) Determination
IMC Fertilizer, Inc.
Polk County

The applicant proposes to construct an air classifier with bag collector at their Animal Feed Ingredients Plant located near Mulberry in Polk County, Florida. The project will consist of an air classifier for the sizing of product, a cyclone, a bag collector and associated equipment.

A BACT determination is required for all regulated air pollutants emitted in amounts equal to or greater than the significant emission rates listed in Table 500-2 of Florida Administrative Code (F.A.C.) Rule 17-212.400. Particulate matter (PM/PM₁₀) is the only regulated air pollutant to be emitted from this project.

Date of Receipt of a Complete Application: December 7, 1992

BACT Determination Requested by Applicant

Control Technology: Fabric Filter

Emission Limit: PM/PM₁₀ 0.02 gr/SCF, 9.9 lb/hr

BACT Determined by the Department

Control Technology: Fabric Filter

Emission Limit: PM/PM₁₀ 0.015 gr/SCF, 7.5 lb/hr, 5% opacity

BACT Determination Procedure

In accordance with Florida Administrative Code Chapter 17-212, Best Available Control Technology Determination, Stationary Source-Preconstruction Review, 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, the regulations state 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 40 CFR 52.21, 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.

BACT-IMC Fertilizer, Inc.
AC53-222589 (PSD-FL-199)

- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

Bact Determination Rationale

From the standpoint of equipment selection (bag collector vs. scrubber), the Department agrees that the applicant selected the best control technology available based on permit requirements for similar facilities. However, the applicant's proposed emission limit basis of 0.02 grain per cubic foot is no longer representative of BACT emission limits. Application of the "top-down" approach requires the most stringent justifiable limit after considering technical and economic factors. Sufficient data are available to show that a fabric filter collector can consistently achieve a grain loading of 0.015 or lower in similar applications. Also, the applicant has submitted test data for similar installations at the New Wales facility showing emission levels in the range of 0.01-0.015 grain per cubic foot. One example in particular is the bag collector for the DAP No. 2 plant at New Wales. Therefore, the Department will require 0.015 as the BACT limit along with an opacity limit of 5 percent.

Details of the Analysis May be Obtained by Contacting:

Doug Outlaw P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blairstone Road, Rm 338
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

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

Virginia B. Wetherell, Secretary
Dept. of Environmental Regulation

Date

Date