



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

July 8, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. E.M. Newberg
Vice President, Chemicals-Florida
IMC-Agrico Company
Post Office Box 2000
Mulberry, FL 33860

Re: DRAFT Permit No. 1050055-010-AC (PSD-FL-235)
South Pierce Facility Increase in Production of Sulfuric Acid Plants Nos. 10 and 11


Dear Mr. Newberg:

Enclosed is one copy of the Draft Air Construction Permit for the IMC-Agrico Company's Sulfuric Acid Plants Nos. 10 and 11 and Molten Sulfur Handling System located at the South Pierce Facility on SR 630 approximately eight miles west of Ft. Meade and twelve miles southwest of Bartow, Polk County. The Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Cleve Holladay or Mr. Linero at 904/488-1344.

Sincerely,


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

CHF/ch

Enclosures

In the Matter of an
Application for Permit by:

IMC-Agrico Company
Post Office Box 2000
Mulberry, Florida 33860

DRAFT Permit No. 1050055-010-AC
PSD-FL-235
South Pierce Facility
Polk County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, IMC-Agrico Company, applied on November 20, 1996, to the Department for an air construction permit to increase the sulfuric acid production rate of their two existing double absorption Sulfuric Acid Plants No. 10 and 11 from 2,700 to 3,000 tons per day (TPD) of 100 percent sulfuric acid, each. This modification will result in an increase in the combined total production of 100 percent sulfuric acid by these plants from 5,400 to 6,000 TPD. In addition this permit will allow the increase in molten sulfur throughput from 625,000 to 725,000 tons per year (TPY). These two plants and the molten sulfur handling system are located at their South Pierce Facility approximately eight miles west of Ft. Meade and twelve miles southwest of Bartow on State Road 630 in Polk County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed project.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

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 "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT". The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax 850/922-6979) within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit, in accordance with the conditions of the enclosed DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT". Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., or a party requests mediation as an alternative remedy under Section 120.573 F.S. before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth

below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9730, fax: 850/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the 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 the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

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

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any; (b) A statement of the preliminary agency action; (c) A statement of the relief sought; and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in Section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57 F.S. for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

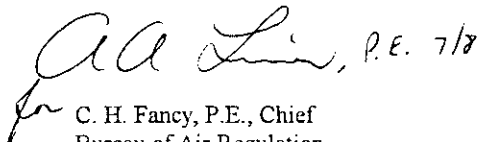
In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal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

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

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

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

Executed in Tallahassee, Florida.


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

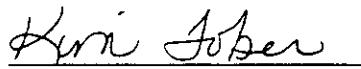
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 7-9-97 to the person(s) listed:

Mr. E.M. Newberg, IMC-Agrico Company *
Mr. John B. Koogler, P.E.
Mr. Brian Beals, EPA
Mr. John Buryak, NPS
Mr. Roy Harwood, PCNRD
Mr. Bill Thomas, SWD

Clerk Stamp

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


(Clerk)

7-9-97
(Date)

P 265 659 239

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

PS Form 3800, April 1995

Sent to	E.M. Newberg	
Street & Number	JMC-Agico	
Post Office, State, & ZIP Code	J. Pierce	
Postage	Mulberry, FL	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date	7-9-97	
1050055-010-AC		
PSD-FI-235		

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- 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:

Mr. E.M. Newberg
V.P. - Chemicals Fla.
JMC-Agico Co.
P.O. Box 2000
Mulberry, FL 33860

4a. Article Number

P265 659 239

4b. Service Type

- | | |
|---------------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Registered | <input checked="" type="checkbox"/> Certified |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Insured |
| <input type="checkbox"/> Return Receipt for Merchandise | <input type="checkbox"/> COD |

7. Date of Delivery

7/11/97

5. Received By: (Print Name)

[Signature]

6. Signature: (Addressee or Agent)

X

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

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit No.: 1050055-010-AC, (PSD-FL-235)
South Pierce Facility
Polk County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to IMC-Agrico for throughput increases for its molten sulfur storage and handling system and for production increases for their Sulfuric Acid Plants No. 10 and 11 located at the South Pierce Facility approximately eight miles west of Ft. Meade and twelve miles southwest of Bartow on State Road 630 in Polk County. A Best Available Control Technology (BACT) determination was required for sulfur dioxide (SO₂), nitrogen oxides (NO_x) and sulfuric acid mist (SAM) pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's name and address are: IMC-Agrico Company, South Pierce Facility, 7450 Highway 630, Mulberry, Florida 33860.

The permit will allow IMC-Agrico to increase the sulfuric acid production rate of their two existing double absorption Sulfuric Acid Plants No. 10 and 11 from 2,700 to 3,000 tons per day (TPD) of 100 percent sulfuric acid, each. The change in the combined total production of 100 percent sulfuric acid by these plants will be from 5,400 to 6,000 TPD. The molten sulfur throughput rate will proportionately increase from 650,000 to 725,000 tons per year (TPY). Sulfur dioxide emissions from the sulfuric acid plants are controlled by use of the double absorption process coupled with periodic change-outs of the reaction catalyst. SAM emissions from sulfuric acid plants are controlled by a mist eliminator.

Total emissions of pollutants, including increases of pollutants subject to PSD review shall not exceed the following limits:

<u>Pollutant</u>	<u>Maximum Emissions</u> Tons Per Year (TPY)	<u>Net Increase</u> Tons Per Year (TPY)
SO ₂	4389.9	1187
SAM	164.2	135.8
NO _x	131.4	79.8

An air quality impact analysis was conducted. Emissions from the facility will consume NO₂ and SO₂ PSD Class I and Class II increments in less than significant amounts for all averaging times, except for the PSD Class II SO₂ 24-hour averaging time. The maximum predicted 24-hour average PSD Class II SO₂ increment consumed by all sources in the area, including this project, will be as follows:

<u>PSD Class II Increment</u> <u>Consumed (µg/m³)</u>	<u>Allowable Increment</u> <u>(µg/m³)</u>	<u>Percent Increment</u> <u>Consumed</u>
SO ₂ 24-hour 46	91	50

The project has no significant impact on the PSD Class I Chassahowitzka National Wilderness Area.

The Department will issue the FINAL Permit, in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The Department will issue FINAL Permit with the conditions of the DRAFT Permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. or a party requests mediation as an alternative remedy under Section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9370, fax: 850/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the 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 the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

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

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any; (b) A statement of the preliminary agency action; (c) A statement of the relief sought; and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in Section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57 F.S. for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

A complete project file 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
Telephone: 850/488-1344
Fax: 850/922-6979

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619
Telephone: 813/744-6100
Fax: 813/744-6458

The complete project file includes the application, technical evaluation, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

IMC-Agrico Company

**South Pierce Facility
Sulfuric Acid Plants 10 and 11
Molten Sulfur Storage and Handling System
Mulberry, Florida
Polk County**

**Air Construction Permit No. 1050055-010-AC
PSD-FL-235**

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

July 8, 1997

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. APPLICATION INFORMATION

1.1 *Applicant Name and Address*

IMC-Agrico Company

South Pierce Facility

7450 Highway 630

Mulberry, Florida 33860

Authorized Representative

Mr. E. M. Newberg, Vice President, Chemicals-Florida

1.2 *Reviewing and Process Schedule*

11-20-96: Date of Receipt of Application
12-18-96: Department's Preliminary Incompleteness Letter
02-05-97: IMC-Agrico's Response to Department's letter of December 18, 1996
03-07-97: Department's Second Incompleteness Letter
04-10-97: IMC-Agrico's Response to Department's letter of March 7, 1997
04-10-97: Application considered complete

2. FACILITY INFORMATION

2.1 *Facility Location*

IMC-Agrico Company's South Pierce Facility consists of a phosphate chemical fertilizer manufacturing complex approximately eight miles west of Ft. Meade and twelve miles southwest of Bartow on State Road 630 in Polk County. IMC-Agrico proposes to increase the sulfuric acid production rate of the two existing double absorption sulfuric acid plants (Nos. 10 and 11) at South Pierce from 2,700 to 3,000 tons per day (TPD) of 100 percent sulfuric acid, each. Molten sulfur throughput at this location will proportionately increase from an annual value of 650,000 to 725,000 tons per year (TPY).

This site is approximately 115 kilometers southeast of the Chassahowitzka National Wilderness Area (CNWA) Class I PSD Area. The UTM coordinates of this facility are Zone 17: 407.5 km E; 3071.4 km N.

2.2 *Standard Industrial Classification Code (SIC)*

Major Group No.	28	Chemicals and Allied Products
Group No.	287	Agricultural Chemicals
Industry No.	2874	Phosphatic Fertilizers

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

2.3 Facility Category

This facility includes sulfuric acid plants, phosphoric acid plants, an ammonium phosphate (MAP/DAP) plant, a granular triple superphosphate (GTSP) plant and storage, handling, grinding and shipping facilities for phosphate rock, ammonia, sulfur, and fertilizer products. IMC-Agrico Company's South Pierce Facility is classified as a major air pollutant emitting facility. Air pollutant emissions are over 100 TPY for sulfur dioxide (SO₂) particulate matter (PM/PM₁₀), nitrogen oxides (NO_x) and carbon monoxide (CO).

This is a Major Facility because it emits over 100 TPY of a regulated pollutant in accordance with Rule 62-210.200 (Major Facility), F.A.C. and a Title V Source in accordance with Rule 62-210.200 (Title V Source), F.A.C.

3. PROJECT DESCRIPTION

3.1 This permit addresses the following emissions units:

ARMS EMISSION UNIT NOS.	EMISSION UNIT DESCRIPTION
004	Sulfuric Acid Plant No. 10
005	Sulfuric Acid Plant No. 11
030-034	Molten Sulfur Storage East Tank Vents 1 to 5
035-039	Molten Sulfur Storage West Tank Vents 1 to 5
040	Molten Sulfur Truck Pit-East Vent with fan
041	Molten Sulfur Truck Pit East Vent w/o fan
042	Molten Sulfur Truck Pit West Vent with fan
043	Molten Sulfur Truck Pit West Vent w/o fan
044	Molten Sulfur Rail Pit North Vent
045	Molten Sulfur Rail Pit South Vent

The applicant proposes to increase the sulfuric acid production rate of the South Pierce facility from 5,400 to 6,000 TPD of 100 percent sulfuric acid, about an 11 percent increase. The production rate of each plant will increase from 2,700 to 3,000 TPD of 100 percent sulfuric acid. The South Pierce molten sulfur throughput will proportionately increase from 650,000 TPY to 725,000 TPY. The proposed sulfuric acid production increase will also result in an increase in waste heat recovery. Additional steam will be made available from the Heat Recovery Systems to the turbogenerator which produces electrical power. The sulfuric acid plants will be able to

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

operate at the higher production rate without any major equipment changes. Minor changes may be required, e.g., piping, ducting, pumps, etc.

The proposed increase in production will result in PSD significant net emissions increases for SO₂, NO_x and sulfuric acid emissions (SAM), when comparing past actual with future potential emissions.

3.2 *Background Information*

The initial construction permit for these sulfuric acid plants were issued in 1974. In 1992 a construction permit was issued to increase the combined production rate of the sulfuric acid plants from 4,000 TPD to 5,400 TPD of 100 percent sulfuric acid and to increase the throughput of the sulfur handling system to 650,000 TPY. In addition the construction permit allowed the sulfuric acid plants to cogenerate power.

4. PROCESS DESCRIPTION

There are two sulfuric acid plants, Nos. 10 and 11, at IMC-Agrico's South Pierce Facility. These plants are presently permitted to produce a combined total of 5,400 TPD of 100 percent sulfuric acid. Molten sulfur is received by truck and rail, unloaded into molten sulfur pits, and stored in the molten sulfur storage tanks. These sulfuric acid plants use the double absorption process which produces sulfuric acid by burning sulfur to produce SO₂, converting the SO₂ to sulfur trioxide using a catalyst, and then contacting the sulfur trioxide with sulfuric acid in primary and secondary absorption towers. This project would increase the combine total production rate of these plants to 6,000 TPD or 3,000 TPD, each. In addition the molten sulfur throughput will be proportionately increased from 650,000 to 725,000 tons per year (TPY). These sulfuric acid plants can operate continuously (8,760 hours per year).

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Polk County, an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for SO₂, NO_x and SAM exceed the significance emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C.

This PSD review consists of a determination of Best Available Control Technology (BACT) and unless otherwise exempted, an analysis of the air quality impact of the proposed project's impacts

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

on soils, vegetation and visibility; along with air quality impacts resulting from associated commercial, residential and industrial growth.

The emission units affected by this modification shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments
Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-296.402	Sulfuric Acid Plants
Rule 62-296.411	Sulfur Storage and Handling Facilities
Rule 62-297.310	General Test Requirements
Rule 62-297.400	EPA Methods Adopted by Reference
Rule 62-297.401	EPA Test Procedures
Rule 62-297.520	EPA Performance Specifications

The modification is subject to 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants.

6. SOURCE IMPACT ANALYSIS

6.1 *Emission Summary*

A summary of the current allowable, current actual, proposed new allowable, and net increases in emissions for Sulfuric Acid Plants 10 and 11 are given in the two tables below:

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SULFURIC ACID PLANT 10 (Emission Unit ID 004)

Pollutants	Current Allowable		Current Actual		New Allowable		Net Increase ton/yr
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	
SO ₂	450.0	1971	399	1695	500	2190	495
SAM	16.9	73.9	4.4	18.7	18.8	82.1	63.4
NO _x	-	-	10.0	42.5	15	65.7	23.2

SULFURIC ACID PLANT 11 (Emission Unit ID 005)

Pollutants	Current Allowable		Current Actual		New Allowable		Net Increase ton/yr
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	
SO ₂	450.0	1971	370	1499	500	2190	691
SAM	16.9	73.9	2.4	9.7	18.8	82.1	72.4
NO _x	-	-	8.6	34.8	15	65.7	30.9

Footnote: Sulfuric Acid Plants 10 and 11

Actual operation data based on the most recent representative 2-year compliance test data and annual operating hours information submitted to FDEP and currently in FDEP files.

A summary of the estimated new emissions and net increase in emissions due to the molten sulfur storage and handling system is given in the two tables below:

MOLTEN SULFUR STORAGE AND HANDLING SYSTEM (Emission Units ID 030-045) Estimated New Emissions by Source Category

Pollutant /Emission Factor	Source Emissions							
	Rail Pit		Truck Pit		West Tank		East Tank	
	Max. lbs/hr	TPY	Max. lbs/hr	TPY	Max. lbs/hr	TPY	Max. lbs/hr	TPY
PM/PM ₁₀ 0.4 gr/cu. ft.	0.24	0.09	1.02	4.51	0.56	1.55	0.56	1.55
Sulfur Particulate (SP) 0.2 gr/cu. ft.	0.12	0.04	0.51	2.25	0.28	0.78	0.28	0.78
SO ₂ 0.515 gr/cu.ft	0.31	0.11	1.32	5.79	0.72	1.99	0.72	1.99
TRS as H ₂ S 0.303 gr/cu. ft	0.18	0.07	0.78	3.41	0.42	1.18	0.42	1.18
VOC 5.22E-5 lbs/cu. ft	0.22	0.08	0.94	4.12	0.51	1.42	0.51	1.42

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MOLTEN SULFUR STORAGE AND HANDLING FACILITY

Total Emissions Summary (TPY)

Pollutant	PM/PM ₁₀	SP	SO ₂	TRS/H ₂ S	VOC
Proposed Emission	7.7	3.9	9.9	5.8	7.0
Present Emission	6.9	3.5	8.9	5.3	6.3
Net Increase	0.8	0.4	1.0	0.5	0.7

The net emissions increase due to the entire project is given in the following table:

SULFURIC ACID PLANTS AND MOLTEN SULFUR STORAGE HANDLING SYSTEM

Net Emissions Increases South Pierce Facility (TPY)

Pollutants	Current Actual	Contemporaneous Changes	New Allowable	Total Increase	PSD Significant Level	Significant?
SO ₂	3202.9	0.0	4389.9	1187	40	YES
SAM	28.4	0.0	164.2	135.8	7	YES
NO _x	77.3	25.7	131.4	79.8	40	YES

6.2 Emission Limitations

The sulfuric acid plants emit the following PSD regulated pollutants (Table 212.400-2): SO₂, NO_x and SAM. The present production limitation of 5,400 TPD of 100 percent sulfuric acid was established by AC53-199112 (PSD-FL-179) in 1992. The present molten sulfur system throughput of 650,000 TPY was established by AC 53-201152 in 1992. The sulfuric acid plants currently operate under air operation permits AO53-221846 (No. 10) and AO53-220555 (No.11). The molten sulfur system currently operates under operation permit AO53-221844. The purpose of this modification, which is subject to a new PSD review (PSD-FL-235), is to increase the production rate of Sulfuric Acid Plants 10 and 11 and the throughput of the molten sulfur handling system.

6.3 Control Technology Review

The BACT document is included as a separate document (see Appendix BD)

6.4 Air Quality Analysis

6.4.1 Introduction

The proposed project will increase emissions of three pollutants at levels in excess of PSD significant amounts: SO₂, NO_x and SAM. SO₂ and NO_x are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, and significant impact levels defined for them. SAM is a non-criteria pollutant and has no AAQS, PSD increments or

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

significant impact levels defined for it; therefore, no air quality dispersion modeling was done for SAM. Instead, the BACT determination will establish SAM emission limits for this project. The PSD regulations require the following air quality analyses for this project:

- * An analysis of existing air quality for SO₂ and NO_x;
- * A significant impact analysis for SO₂ and NO_x;
- * A PSD increment analysis for SO₂ and NO_x;
- * An Ambient Air Quality Standards (AAQS) analysis for SO₂ and NO_x;
- * An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts.

The analysis of existing air quality generally relies on preconstruction monitoring data collected with EPA-approved methods. The significant impact, PSD increment, 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 conditions of approval proposed herein, will not cause or significantly 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 Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). 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 required analyses follows.

6.4.2 Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. This monitoring requirement may be satisfied by using previously existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if EPA has not established an acceptable monitoring method for the specific pollutant, monitoring may not be required.

If preconstruction ambient monitoring is exempted, determination of background concentrations for PSD significant pollutants with established AAQS may still be necessary for use in any

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from previously existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts predicted by modeling and represent the air quality impacts of sources not included in the modeling.

The table below shows that SO₂ and NO₂ impacts from the project are predicted to be less than the de minimus levels; therefore, preconstruction ambient air quality monitoring is not required for these pollutants. However, an SO₂ background concentration of 9 ug/m³ for all averaging times was established from previously existing air quality data for use in the AAQS analysis required for SO₂.

**Maximum Project Air Quality Impacts for Comparison
to the De Minimus Ambient Levels.**

Pollutant	Avg. Time	Max Predicted Impact (ug/m ³)	Impact Greater Than De Minimus?	De Minimus Level(ug/m ³)
NO ₂	Annual	0.3	NO	14
SO ₂	24-hour	6.0	NO	13

6.4.3 Models and Meteorological Data Used in the Significant Impact Analysis

The applicant and the Department used the EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model to evaluate the pollutant emissions from the proposed project. 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. The ISCST3 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 used the EPA recommended regulatory options. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Tampa International Airport, Florida (surface data) and Ruskin, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Since five years of data were used in ISCST3, the highest-second-high (HSH) 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 project's significant impact area in the vicinity of the facility and if there are significant impacts from the project on any PSD Class I area, both the highest short-term predicted concentrations and the highest predicted yearly averages were compared to their respective significant impact levels.

6.4.4 Significant Impact Analysis

Initially, the applicant conducts modeling using only the proposed project's emissions. If this modeling shows significant impacts, further modeling is required to determine the project's impacts on the AAQS or PSD increments. Fourteen receptor rings with 10 degree intervals (10-360 degrees) were placed at distances ranging from 3 to 26 km from the facility, which is located in a PSD Class II area. Thirteen discrete receptors were set in the Chassahowitzka National Wilderness Area (CNWA) which is a PSD Class I area located approximately 115 km to the northwest of the project at its closest point. For each pollutant subject to PSD and also subject to PSD increment and/or AAQS analyses, this modeling compares maximum predicted impacts due to the project with PSD significant impact levels to determine whether significant impacts due to the project are predicted in the vicinity of the facility or in the CNWA. The tables below show the results of this modeling. The only significant impacts predicted in either the CNWA Class I area or in the vicinity of the facility were for the SO₂ 24-hour averaging time. Therefore, further AAQS and PSD increment analyses were only required in the Class II area for the SO₂ 24-hour averaging time.

**Maximum Project Air Quality Impacts for Comparison
to the PSD Class II Significant Impact Levels in the Vicinity of the Facility.**

Pollutant	Averaging Time	Maximum Predicted Impact (ug/m ³)	Significant Impact Level (ug/m ³)	Significant Impact?	Radius of Significant Impact (km)
SO ₂	Annual	0.3	1	NO	0.0
	24-hour	6.0	5	YES	3.0
	3-hour	19.9	25	NO	0.0
NO ₂	Annual	0.3	1	NO	0.0

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Maximum Project Air Quality Impacts in the CNWA for Comparison to the PSD Class I Significant Impact Levels

Pollutant	Averaging Time	Maximum Predicted Impact (ug/m ³)	Significant Impact Level (ug/m ³)	Significant Impact?
SO ₂	Annual	0.013	0.1	NO
	24-hour	0.15	0.2	NO
	3-hour	0.8	1.0	NO
NO ₂	Annual	0.004	0.1	NO

6.4.5 Receptor Networks For PSD Increment And AAQS Analyses

For the AAQS and PSD Class II analyses, receptor grids normally are based on the size of the significant impact area for each pollutant. For predicting maximum SO₂ concentrations in the vicinity of the facility, a discrete receptor grid comprised of 408 receptors located along the property boundary and within 3 km of the facility was used. Significant sources up to 110 kilometers were input into the modeling.

6.4.6 PSD Increment Analysis

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. The results of the PSD Class II increment analysis presented in the table below show that the maximum predicted SO₂ 24-hour average impacts are less than the allowable increment.

PSD Class II Increment Analysis

Pollutant	Averaging Time	Maximum Predicted Impact (ug/m ³)	Impact Greater Than Allowable Increment?	Allowable Increment (ug/m ³)
SO ₂	24-hour	45.6	NO	91

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

6.4.7 AAQS Analysis

For pollutants subject to an AAQS review, the total impact on ambient air quality is obtained by adding a "background" concentration to the maximum modeled concentration. This "background" concentration takes into account all sources of a particular pollutant that are not explicitly modeled. Only the AAQS analysis for the SO₂ 24-hour averaging time was required for this project; however, the Department modeled the impacts of the project's SO₂ emissions for the 3-hour and annual averaging times in order to provide further assurance that no AAQS were predicted to be exceeded. The results of the AAQS analysis are summarized in the table below. As shown in this table, emissions from the proposed facility are not expected to cause or significantly contribute to a violation of an AAQS.

Ambient Air Quality Impacts

Pollutant	Averaging Time	Major Sources Impact (ug/m ³)	Background Conc. (ug/m ³)	Total Impact (ug/m ³)	Total Impact Greater Than AAQS?	Florida AAQS (ug/m ³)
SO ₂	24-hour	177	9	186	NO	260
	Annual	38	9	47	NO	60
	3-hour	522	9	531	NO	1300

6.5 Additional Impacts Analysis

6.5.1 Impact Analysis Impacts On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur from SO₂ and NO_x emissions as a result of the proposed project, including background concentrations and all other nearby sources, will be below the associated 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.

6.5.2 Impact On Visibility

Visual Impact Screening and Analysis (VISCREEN), the EPA-approved Level I visibility computer model, was used to estimate the impact of the proposed project's stack emissions on visibility in the CNWA. The results indicate that the maximum visibility impacts do not exceed the screening criteria inside or outside this area. As a result, there is no significant impact on visibility predicted for this Class I area. In addition a regional haze analysis was done. This analysis predicted no adverse impacts upon regional haze.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

6.5.3 Growth-Related Air Quality Impacts

The proposed modification will require no increase in personnel to operate the sulfuric acid plants. Also the increase in sulfuric acid production may cause a slight increase in delivery truck tanker traffic, but will have a negligible impact on traffic in the area as compared with traffic levels that presently exist. Therefore, no additional growth impacts are expected as a result of the proposed project.

7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by IMC-Agrico, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations provided the Department's Best Available Control Technology Determination is implemented and certain conditions are met. The General and Specific Conditions are listed in the attached draft conditions of approval.

Permit Engineer: Cleve Holladay

Meteorologist: Cleve Holladay

Reviewed and Approved by A. A. Linero, P.E.



Department of Environmental Protection

DRAFT

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:

IMC-Agrico Company
South Pierce Facility
Post Office Box 2000
Mulberry, Florida 33860

FID No.	1050055
PSD No.	PSD-FL-235
Permit No.	1050055-010-AC
SIC No.	2874
Expires:	June 30, 2000

Authorized Representative:
E. M. Newberg
Vice President, Chemicals-Florida

LOCATED AT:

IMC-Agrico Company, South Pierce Facility, Polk County

Project: Production Increase in Sulfuric Acid Plants 10 and 11;
Throughput Increase - Molten Sulfur Handling and Storage

Location: UTM Zone 17; 407.5 km E ; 3071.4 km N

Directions: *Located on SR 630 approximately eight miles west of Ft. Meade and twelve miles southwest of Bartow in Polk County*

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department) and made a part hereof and specifically described as follows:

For the increase in sulfuric acid production from 2,700 to 3,000 tons per day per plant from Sulfuric Acid Plants 10 and 11 and an associated increase in molten sulfur utilization, storage, and handling.

Attached appendices and Tables made a part of this permit:

Tables 1-2 a,b,c

Appendix BD

Appendix GC

Appendix CSC-SAP

Air Pollutants Standards and Terms for Sulfuric Acid Plants and
Molten Sulfur Storage Handling System

BACT Determination

Construction Permit General Conditions

Emission Unit(s) Common Specific Conditions-Sulfuric Acid Plants

Howard L. Rhodes, Director
Division of Air Resources
Management

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

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

This facility includes sulfuric acid plants, phosphoric acid plants, an ammonium phosphate (MAP/DAP) plant, a granular triple superphosphate (GTSP) plant and storage, handling, grinding and shipping facilities for phosphate rock, ammonia, sulfur, and fertilizer products.. This modification will increase the sulfuric acid production rate of the facility from 5,400 to 6,000 tons per day (TPD) of 100 percent sulfuric acid. The throughput of the South Pierce molten sulfur handling system will increase proportionately from 650,000 to 725,000 tons per year (TPY).

EMISSION UNITS

ARMS EMISSION UNIT NOS.	EMISSION UNITS DESCRIPTION
004	Sulfuric Acid Plant No.10
005	Sulfuric Acid Plant No.11
030-034	Molten Sulfur Storage East Tank Vents 1 to 5
035-039	Molten Sulfur Storage West Tank Vents 1 to 5
040	Molten Sulfur Truck Pit-East Vent with fan
041	Molten Sulfur Truck Pit East Vent w/o fan
042	Molten Sulfur Truck Pit West Vent with fan
043	Molten Sulfur Truck Pit West Vent w/o fan
044	Molten Sulfur Rail Pit North Vent
045	Molten Sulfur Rail Pit South Vent

SUBSECTION B. REGULATORY CLASSIFICATION

This industry is listed in Table 62-212.400-1 of Chapter 62-212, F.A.C., "Major Facility Categories." Therefore, stack and fugitive emissions of over 100 tons per year of carbon monoxide, sulfur dioxide, nitrogen oxides, or particulate matter characterize the installation as a major facility subject to the requirements of Rule 62-212.400, F.A.C. As a facility with sulfuric acid plants, this facility is subject to Rule 62-204.800, F.A.C., which incorporates 40 CFR Subpart H, New Source Performance Standards for Sulfuric Acid Plants. This facility is a Title V source because it emits over 100 tons per year of sulfur dioxide. [Rules 62-210.200 (Title V Source) and 62-213, F.A.C.]

SUBSECTION C. PERMIT SCHEDULE:

- (DATE) Notice of Intent published in [issue of Newspaper]
- 07/07/97 Issued Notice of Intent to issue Permit

DRAFT

AIR CONSTRUCTION PERMIT 1050055-010-10 AND 1050055-010-11

SECTION I. FACILITY INFORMATION

- 04/10/97 Application deemed complete

SUBSECTION D. RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

1. Application received on 11/20/96
2. Department's letters dated 12/18/96 and 03/07/97
3. Company letters received 02/05/97 and 04/10/97
4. Department of Interior's letter dated 12/24/96

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Florida Department of Environmental Protection (FDEP) Southwest District Air Resource Program Permitting Section located at 3804 Coconut Drive, Tampa, Florida 33619-8218, and phone number (813)744-6100. All applications for permits to construct or modify an emission unit(s) subject to the Prevention of Significant Deterioration (PSD) Review requirements should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blainstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-1344.
- A.2 General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- A.3 Emission Unit(s) Common Specific Conditions: The owner and operator is subject to and shall operate under the attached Emission Unit(s) Common Specific Conditions-Sulfuric Acid Plants listed in *Appendix CSC-SAP* of this permit. The Emission Unit(s) Common Specific Conditions are binding and enforceable pursuant to Chapters 62-204 through 62-297 of the Florida Administrative Code.
- A.4 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.5 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
- A.6 Expiration: This air construction permit shall expire on June 30, 2000. [Rule 62-210.300(1), F.A.C.]. The permittee may, for good cause, 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. However, the permittee shall promptly notify the permitting authority office of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
- A.7 Application for Title V Permit: This air construction permit revises specific permit conditions to reflect the current applicable requirements, BACT and new permit emission limits. Stack testing of emissions that are required by this permit shall be performed to determine compliance with all new applicable permitted limits. A revision of the Title V operation permit application or a new application, pursuant to Chapter 62-213 F.A.C., must be submitted to the DEP's District office in Tampa. [Chapter 62-213, F.A.C.]

DRAFT**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS****SUBSECTION A. EMISSION UNITS**

This permit addresses the following emission units.

ARMS EMISSION UNIT NOS.	EMISSION UNITS DESCRIPTION
004	Sulfuric Acid Plant No.10
005	Sulfuric Acid Plant No.11
030-034	Molten Sulfur Storage East Tank Vents 1 to 5
035-039	Molten Sulfur Storage West Tank Vents 1 to 5
040	Molten Sulfur Truck Pit-East Vent with fan
041	Molten Sulfur Truck Pit East Vent w/o fan
042	Molten Sulfur Truck Pit West Vent with fan
043	Molten Sulfur Truck Pit West Vent w/o fan
044	Molten Sulfur Rail Pit North Vent
045	Molten Sulfur Rail Pit South Vent

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION B. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emission unit:

ARMS EMISSION UNIT No.	EMISSION UNIT DESCRIPTION
004	Sulfuric Acid Plant No.10

This emission unit shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A.

- B.1 [40 CFR 60.7, Notification and record keeping]
- B.2 [40 CFR 60.8, Performance tests]
- B.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- B.4 [40 CFR 60.12, Circumvention]
- B.5 [40 CFR 60.13, Monitoring requirements]
- B.6 [40 CFR 60.19, General notification and reporting requirements]

This emission unit shall comply with all applicable provisions of the 40 CFR 60 New Source Performance Standards for Sulfuric Acid Plants, Subpart H [Rule 62-204.800, F.A.C].

EMISSION LIMITATIONS

- B.7 The maximum allowable emission rates for the Sulfuric Acid Plant shall not exceed the limits listed in Table 1-2a. Air Pollutant Standards and Terms (attached). [Rule 62-210.200, F.A.C. Definitions-Potential to Emit (PTE) and 62-212.400, F.A.C.]
- B.8 In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- B.9 This emission unit is allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. Definitions-Potential to emit (PTE).]

PROCESS OPERATING RATES

- B.10 The maximum production rate of the sulfuric acid plant is 3000 TPD of 100% H₂SO₄. [Rule 62-210.200, F.A.C. Definitions-Potential to Emit (PTE).]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

MONITORING OF OPERATIONS

- B.11 A continuous monitoring system for the measurement of sulfur dioxide emissions shall be installed, calibrated, operated and maintained as described in 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants. [Rule 62-204.800(7), F.A.C.; 40 CFR 60.84.]

TEST METHODS AND PROCEDURES

- B.12 Initial and annual compliance with the allowable emission limiting standards listed in Table 1-2a, Air Pollutant Standards and Terms, shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1995, version) and 40 CFR 61 Appendix B (1995, version) adopted by reference in Chapter 62-204, F.A.C.

- | | |
|------------------|---------------------------------------------------------------------------------|
| Method 7E | Determination of Nitrogen Oxides from Stationary Sources. |
| Method 8 | Determination of Sulfur Dioxide and Sulfuric Acid Mist from Stationary Sources. |
| Method 9 | Visual Determination of the Opacity of Emissions from Stationary Sources. |

DRAFT**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS****SUBSECTION C. SPECIFIC CONDITIONS:**

The following Specific Conditions apply to the following emission unit:

ARMS EMISSION UNIT No.	EMISSION UNIT DESCRIPTION
005	Sulfuric Acid Plant No.11

This emission unit shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A.

- C.1 [40 CFR 60.7, Notification and record keeping]
- C.2 [40 CFR 60.8, Performance tests]
- C.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- C.4 [40 CFR 60.12, Circumvention]
- C.5 [40 CFR 60.13, Monitoring requirements]
- C.6 [40 CFR 60.19, General notification and reporting requirements]

This emission unit shall comply with all applicable provisions of the 40 CFR 60 New Source Performance Standards for Sulfuric Acid Plants, Subpart H [Rule 62-204.800, F.A.C].

EMISSION LIMITATIONS

- C.7 The maximum allowable emission rates for the Sulfuric Acid Plant shall not exceed the limits listed in **Table 1-2b. Air Pollutant Standards and Terms (attached).** [Rule 62-210.200, F.A.C. Definitions-Potential to Emit (PTE) and 62-212.400, F.A.C.]
- C.8 In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C. and 40 CFR 60.7]

OPERATIONAL LIMITATIONS

- C.9 This emission unit is allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. Definitions-Potential to emit (PTE).]

PROCESS OPERATING RATES

- C.10 The maximum production rate of the sulfuric acid plant is 3000 TPD of 100% H₂SO₄. [Rule 62-210.200, F.A.C. Definitions-Potential to Emit (PTE).]

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

MONITORING OF OPERATIONS

- C.11 A continuous monitoring system for the measurement of sulfur dioxide emissions shall be installed, calibrated, operated and maintained as described in 40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants. [Rule 62-204.800(7), F.A.C.; 40 CFR 60.84.]

TEST METHODS AND PROCEDURES

- C.12 Initial and annual compliance with the allowable emission limiting standards listed in Table 1-2b, Air Pollutant Standards and Terms, shall be determined by using the following reference methods as described in 40 CFR 60, Appendix A (1995, version) and 40 CFR 61 Appendix B (1995, version) adopted by reference in Chapter 62-204, F.A.C.

- | | |
|------------------|---------------------------------------------------------------------------------|
| Method 7E | Determination of Nitrogen Oxides from Stationary Sources. |
| Method 8 | Determination of Sulfur Dioxide and Sulfuric Acid Mist from Stationary Sources. |
| Method 9 | Visual Determination of the Opacity of Emissions from Stationary Sources. |

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION D. SPECIFIC CONDITIONS: MOLTEN SULFUR STORAGE AND HANDLING SYSTEM

ARMS EMISSION UNIT NOS.	EMISSION UNITS DESCRIPTION
030-034	Molten Sulfur Storage East Tank Vents 1 to 5
035-039	Molten Sulfur Storage West Tank Vents 1 to 5
040	Molten Sulfur Truck Pit-East Vent with fan
041	Molten Sulfur Truck Pit East Vent w/o fan
042	Molten Sulfur Truck Pit West Vent with fan
043	Molten Sulfur Truck Pit West Vent w/o fan
044	Molten Sulfur Rail Pit North Vent
045	Molten Sulfur Rail Pit South Vent

EMISSION LIMITATIONS

- D.1 Visible emissions (VE) shall not exceed 20% opacity from any source in the Molten Sulfur Storage and Handling System. [Rule 62-296.411, F.A.C.]
- D.2 The permittee shall employ procedures to minimize emissions from the Molten Sulfur Storage and Handling System pursuant to the applicable requirements of Rule 62-296.411, F.A.C. The estimated emission rates for emission inventory and PSD purposes for the units in the Molten Sulfur Storage and Handling System are listed in Table 1-2c. Air Pollutant Standards and Terms (attached).
- D.3 No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [F.A.C. 62-210.200(198)]

OPERATIONAL LIMITATIONS

- D.4 The units comprising the Molten Sulfur Storage and Handling system are allowed to operate continuously (8760 hours/year) [Rule 62-210.200, F.A.C. Definitions-Potential to emit (PTE).]

PROCESS OPERATING RATES

- D.5 The maximum molten sulfur throughput rate of the Molten Sulfur Storage and Handling System shall neither exceed 2300 tons per day (TPD), nor 725,000 tons per year (TPY) based on the combined acid

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

production capacity of 6,000 TPD 100% sulfuric acid for the Nos. 10 and 11 sulfuric acid plants. [Rule 62-210.200, F.A.C. Definitions-Potential to Emit (PTE).]

- D.6 The permittee shall employ proper operation and maintenance procedures to control emissions from the Molten Sulfur Storage and Handling System. [Rule 62-296.411, F.A.C.]

TEST METHODS AND PROCEDURES

- D.7 Initial and subsequent compliance with the visible emissions (VE) standard shall be determined by using EPA Method 9 as described in 40 CFR 60, Appendix A (1995, version) adopted by reference in **Chapter 62-204, F.A.C.** Test run duration shall not be less than 30 minutes. The tests for the vents of the storage tanks and sulfur pits shall be conducted while the tanks and pits are being filled (filling does not have to be continuous during the entire test). Routine VE tests shall be at the frequency specified in any permit to operate this system issued by the Southwest District office in Tampa.
- D.8 Any change in the method of operation, equipment or operating hours shall be submitted to the Department's Southwest District office in Tampa for approval. [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]
- D.9 The VE compliance test results shall be filed with the Southwest District office in Tampa as soon as practical but no later than 45 days after test completion. [Rule 62-297.310(8), F.A.C.]

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Table 1-2a. Air Pollutant Standards and Terms.

FACILITY ID NUMBER: 1050055

Permittee:
IMC Agrico Company

DRAFT Permit No.: 1050055-010-AC and PSD-FL-235
South Pierce Plant

Emission Unit 004 - Sulfuric Acid Plant No. 10

E.U. ID#	Description	Pollutant	Fuel(s)	Allowable Emissions			
				BASIS	lbs/ton of 100% H ₂ SO ₄	lb/hr	TPY
004	Sulfuric Acid Plant No.10	SO ₂	Sulfur	BACT-NSPS	4.0	500.0	2190.0
004	Sulfuric Acid Plant No.10	NO _x	Sulfur	BACT	0.12 *	15.0	65.7
004	Sulfuric Acid Plant No.10	SAM	Sulfur	BACT-NSPS	0.15	18.8	82.1
004	Sulfuric Acid Plant No.10	VE	Sulfur	BACT-NSPS	-	10% opacity	

- * The NO_x limit based on a general emission factor, is subject to revision if sufficient test data indicate that the emission factor is improper.

ALLOWABLE OPERATING RATES

Hours of Operation		SAP No.10	
		8760	
Sulfuric Acid Production Rate	TPD	3000	Based on 100% H ₂ SO ₄

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Table 1-2b. Air Pollutant Standards and Terms.

FACILITY ID NUMBER: 1050055

Permittee:

IMC Agrico Company

DRAFT Permit No.: 1050055-010-AC and PSD-FL-235

South Pierce Plant

Emission Unit 005 - Sulfuric Acid Plant No. 11

E.U. ID#	Description	Pollutant	Fuel(s)	Allowable Emissions			
				BASIS	lbs/ton of 100% H ₂ SO ₄	lb/hr	TPY
005	Sulfuric Acid Plant No.11	SO ₂	Sulfur	BACT-NSPS	4.0	500.0	2190.0
005	Sulfuric Acid Plant No.11	NO _x	Sulfur	BACT	0.12 *	15.0	65.7
005	Sulfuric Acid Plant No.11	SAM	Sulfur	BACT-NSPS	0.15	18.8	82.1
005	Sulfuric Acid Plant No.11	VE	Sulfur	BACT-NSPS	-	10% opacity	

- * The NO_x limit based on a general emission factor, is subject to revision if sufficient test data indicate that the emission factor is improper.

ALLOWABLE OPERATING RATES

Hours of Operation		SAP No.11	
		8760	
Sulfuric Acid Production Rate	TPD	3000	Based on 100% H ₂ SO ₄

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Table 1-2c. Air Pollutant Standards and Terms

FACILITY ID NUMBER: 1050055

Permittee:
IMC Agrico Company

DRAFT Permit No.: 1050055-010-AC and PSD-FL-235
South Pierce Plant

For emission inventory and PSD purposes, the estimated maximum emissions from the sources in the molten sulfur storage and handling facility are:

Estimated Emissions

Emission Units 030-034 Molten Sulfur Storage East Tank (Vents 1-5)

	Estimated Emissions				
	PM/PM ₁₀	SP	SO ₂	TRS/H ₂ S	VOC
lb/hr (max)	0.56	0.28	0.72	0.42	0.51
lb/hr (avg)	0.36	0.18	0.46	0.27	0.32
TPY	1.55	0.78	1.99	1.18	1.42

Estimated Emissions

Emission Units 035-039 Molten Sulfur Storage West Tank (Vents 1-5)

	Estimated Emissions				
	PM/PM ₁₀	SP	SO ₂	TRS/H ₂ S	VOC
lb/hr (max)	0.56	0.28	0.72	0.42	0.51
lb/hr (avg)	0.36	0.18	0.46	0.27	0.32
TPY	1.55	0.78	1.99	1.18	1.42

Estimated Emissions

Emission Units 040-043 Molten Sulfur Storage Truck Pits East and West

	Estimated Emissions				
	PM/PM ₁₀	SP	SO ₂	TRS/H ₂ S	VOC
lb/hr (max)	1.02	0.51	1.32	0.78	0.94
TPY	4.51	2.25	5.79	3.41	4.12

Estimated Emissions

Emission Units 044-045 Molten Sulfur Storage Rail Pits North and South

	Estimated Emissions				
	PM/PM ₁₀	SP	SO ₂	TRS/H ₂ S	VOC
lb/hr (max)	0.24	0.12	0.31	0.18	0.22
lb/hr (avg)	0.02	0.01	0.02	0.01	0.02
TPY	0.09	0.04	0.11	0.07	0.08

- G.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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and 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 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.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment 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.
- G.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.
- G.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.
- G.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 and 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.
- G.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.

APPENDIX GC - ALL EMISSION UNIT
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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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.

- G.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.
- G.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.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology (X)
 - (b) Determination of Prevention of Significant Deterioration (X); and
 - (c) Compliance with New Source Performance Standards (X).
- G.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 or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.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.

SUBSECTION 1.0 CONSTRUCTION REQUIREMENTS

- 1.1 Applicable Regulations: Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S and Florida Administrative Code Chapters 62-4, 62-103, 62-204, 62-210, 62-212, 62-213, 62-296, 62-297, and the applicable requirements of the Code of Federal Regulations Section 40, Part 60, adopted by reference in the Florida Administrative Code regulation **Rule 62-204.800 F.A.C.** Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [**Rule 62-210.300, F.A.C.**]

SUBSECTION 2.0 EMISSION LIMITING STANDARDS

- 2.1 General Particulate Emission Limiting Standards. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). [**Rule 62-296-320(4)(b)1, F.A.C.**]
- 2.2 Unconfined Emissions of Particulate Matter [**Rule 62-296.320(4)(c), F.A.C.**]
- (a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.
 - (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (c) Reasonable precautions include the following:
 - Paving and maintenance of roads, parking areas and yards.
 - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS-SULFURIC ACID PLANTS

- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

***NOTE:** Facilities that cause frequent, valid complaints may be required by the Southwest District office to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.*

2.3 General Pollutant Emission Limiting Standards: [Rule 62-296.320, F.A.C.]

- (a) The owner or operator shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems.
- (b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

***NOTE:** An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [F.A.C. 62-210.200(198)]*

SUBSECTION 3.0 OPERATION AND MAINTENANCE

- 3.1 Changes/Modifications: The owner or operator shall submit to the Department of Environmental Protection, Bureau of Air Regulation and/or the Southwest District office in Tampa, for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. *Routine maintenance of equipment will not constitute a modification of this permit.* [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]
- 3.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Southwest District office in Tampa as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS-SULFURIC ACID PLANTS

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permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

3.3 Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]

3.4 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]

- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units 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 Southwest District office in Tampa office for longer duration. Best operational start-up practices shall be followed as described in the attached Memorandum of Understanding signed in 1989. [Rule 62-210.700(1), F.A.C.]
- (b) Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- (c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Air Pollution Control Section of the Southwest District office in Tampa within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]

3.5 Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

SUBSECTION 4.0 MONITORING OF OPERATIONS

4.1 Determination of Process Variables

- (a) The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

SUBSECTION 5.0 TEST REQUIREMENTS

- 5.1 Test Performance Within 60 days after achieving the maximum production rate at which these emission units will be operated, but not later than 180 days after initial startup and annually thereafter, the owner or operator of this facility shall conduct performance test(s) pursuant to 40 CFR 60.8, Subpart A, General Provisions and 40 CFR 60, Appendix A. No other test method shall be used unless approval from the Department has been received in writing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emission unit(s) operating at permitted capacity pursuant to Rule 62-297.310(2), F.A.C. [Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C.]
- 5.2 Test Procedures shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. [Rule 62-297.310, F.A.C.]
- 5.3 Test Notification: The owner or operator shall notify the Southwest District office in Tampa in writing at least (30) days (initial) and 15 days (annual) prior to each scheduled compliance test to allow witnessing. The notification shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The (30) or (15) day notification requirement may be waived at the discretion of the Department. Likewise, if circumstances prevent testing during the test window specified for the emission unit, the owner or operator may request an alternate test date before the expiration of this window. [Rule 62-297.310 and 40 CFR 60.8, F.A.C.]
- 5.4 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Southwest District office in Tampa. [Rule 62-297.310(7)(b), F.A.C.]
- 5.5 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C..
- 5.6 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.
- 5.7 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new

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EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS-SULFURIC ACID PLANTS

test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2) and (3)]

SUBSECTION 6.0 REPORTS AND RECORDS

- 6.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [Rule 62-4.160(14)(b), F.A.C.]
- 6.2 Emission Compliance Stack Test Reports:
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Southwest District office in Tampa as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C.]
 - b) The *test report* shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in **Rule 62-297.310(8), F.A.C.**
- 6.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Air Compliance Section of the Southwest District office in Tampa within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
- 6.4 Annual Operating Report for Air Pollutant Emitting Facility: Before March 1st of each year, the owner or operator shall submit to the Department this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. [Rule 62-210.370(3), F.A.C.]

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APPENDIX BD BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

IMC-Agrico Company
South Pierce Facility
PSD-FL-235 and 1050055-010-AC
Polk County

The applicant proposes to increase the acid production rate of its two existing double absorption sulfuric acid plants (Nos. 10 and 11) at its South Pierce facility from 2700 to 3000 tons per day (TPD) of 100 percent sulfuric acid (H_2SO_4), each. The overall increase in H_2SO_4 production from the facility will be from 5400 to 6000 TPD. The South Pierce molten sulfur throughput will increase proportionately from 650,000 to 725,000 tons per year (TPY) through its sulfur handling system. The plants and sulfur handling system are located at IMC-Agrico's South Pierce phosphate chemical fertilizer manufacturing facility approximately eight miles west of Ft. Meade and twelve miles southwest of Bartow on State Road 630 in Polk County, Florida.

The proposed project will increase emissions of sulfur dioxide (SO_2), nitrogen oxides (NO_x) and sulfuric acid mist (SAM) by more than the applicable Prevention of Significant (PSD) significant emission rates. The project is therefore subject to PSD review in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.).

The BACT review is part of the PSD review requirements in accordance with Rule 62-212.410, F.A.C.

Date of Receipt of a BACT Application: November 20, 1996.

Date Application Complete: April 10, 1997.

The BACT determination requested by the applicant is presented below:

<u>Control Technology</u>	Double Absorption/Fiber Mist Eliminators
<u>Pollutant</u>	<u>Emission Limits</u>
SO_2	4 lbs/ton of 100% H_2SO_4 produced
Sulfuric Acid Mist	0.15 lb/ton of 100% H_2SO_4 produced
Visible Emissions	10% opacity
NO_x	0.12 lbs/ton of 100% H_2SO_4 produced (this limit is based on a general emission factor and is subject to revision if sufficient test data indicate that the emission factor is inaccurate)

APPENDIX BD BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

BACT Determination Procedure:

In accordance with Chapter 62-212, F.A.C., Air Pollution, 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 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.
- (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 Determined by the Department:

<u>Control Technology</u>	Double Absorption/Fiber Mist Eliminators
<u>Pollutant</u>	<u>Emission Limits</u>
SO ₂	4.0 lbs/ton of 100% H ₂ SO ₄ produced
Sulfuric Acid Mist	0.15 lb/ton of 100% H ₂ SO ₄ produced
Visible Emissions	10% opacity
NO _x	0.12 lbs/ton of 100% H ₂ SO ₄ produced (this limit is based on a general emission factor and is subject to revision if sufficient test data indicate that the emission factor is inaccurate)

APPENDIX BD BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

BACT Determination Rationale

The Department's BACT determination is the same as that proposed by the applicant. It is the same as the most recent determinations made for modifications of existing sulfuric acid plants or construction of new plants. This level of technology is accordance with the Standards of Performance for Sulfuric Acid Plants, 40 CFR 60 Subpart H.

The process of making sulfuric acid requires conversion of sulfur dioxide (SO_2) to sulfur trioxide (SO_3) followed by absorption into a stream of sulfuric acid (H_2SO_4). The catalytic oxidation and subsequent double absorption operation is characterized by a conversion efficiency of approximately 99.7 percent. This is considered BACT for SO_2 control and is equivalent to approximately 4 lbs per ton of sulfuric acid produced.

It is possible to achieve lower values by more frequent catalyst screening and replacement. However, for a 10 percent production increase at an existing plant, the Department considers such a requirement to be of marginal benefit. However, such changes are probably feasible for new, refurbished or reconstructed plants.

Recovery of sulfuric acid mist is an economic necessity as well as an environmental requirement. High efficiency mist eliminators are considered BACT for sulfuric acid mist.

The low NO_x emission rate from IMC-Agrico's sulfuric acid plants is the result of the low combustion temperatures in the sulfur burning system. The Department agrees with the the applicant that the low- NO_x emitting combustion system inherent for sulfuric plants is BACT for NO_x emissions, and that it would not be economically feasible to add retrofit NO_x control technologies. The Department believes that the facility can meet the NO_x emission limit of 0.12 lb/ton of 100% H_2SO_4 produced, as similar facilities in the past have met this emission limit. However, the nitrogen oxides limit is based on a general emission factor, and is subject to revision if sufficient test data indicate that the emission factor is inaccurate. If the actual value is substantially higher than estimated, an evaluation of further NO_x control will be performed.

Conclusion

This BACT determination is consistent with those given in the EPA BACT/LAER Clearinghouse. This level of control insures that emissions will be minimized and there will be no significant deterioration of ambient air quality as discussed in the Technical Evaluation and Preliminary Determination.

DRAFT

APPENDIX BD BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Details of the Analysis May be Obtained by Contacting:

Cleve Holladay, Permit Engineer
A. A. Linero, P.E. Administrator
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

Approved By:

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

Howard L. Rhodes, Director
Division of Air Resources
Management

Date:

Date:

MEMORANDUM OF UNDERSTANDING
REGARDING BEST OPERATIONAL START-UP PRACTICES
FOR SULFURIC ACID PLANTS

The parties jointly agree: for the purposes of Rule 17-2.250, the foregoing practices constitute "best operational practices" for the start-up of sulfuric acid plants.

The Department will not seek to incorporate these practices into permits for existing facilities during the first 18 months after implementation. After the expiration of this 18-month period, which is a typical catalyst cycle, the Department may seek to modify the permits, in accordance with Rule 17-4.080 and other applicable laws, to incorporate appropriate site-specific start-up procedures as enforceable permit conditions.

These Sulfuric Acid Plant Best Operation Start-Up Practices will be made available in the control room at all times.

Since these specific procedures are undergoing evaluation, the Department will not consider these practices to be the only means of demonstrating best operating procedures. If a company chooses to use another method, it will be its responsibility to demonstrate that it constitutes best operational practices in accordance with 17-2.250, F.A.C.

BEST OPERATIONAL START-UP PRACTICES FOR SULFURIC ACID PLANTS

1. Only one sulfuric acid plant at a facility should be started up and burning sulfur at a time. There are times when it will be acceptable for more than one sulfuric acid plant to be in the start-up mode at the same time, provided the following condition is met. It is not acceptable to initiate sulfur burning at one sulfuric acid plant when another plant at the same facility is emitting SO_2 at a rate in excess of the emission limits imposed by the permit or rule, as determined by the CEMs emission rates for the immediately preceding 20 minutes.
2. A plant start-up must be at the lowest practicable operating rate, not to exceed 70 percent of the designated operating rate, until the SO_2 monitor indicates compliance. Because production rate is difficult to measure during start-up, if a more appropriate indicator (such as blower pressure, furnace temperature, gas strength, blower speed, number of sulfur guns operating, etc.) can be documented, tested and validated, the Department will accept this in lieu of directly documenting the operating rate. Implementation requires the development of a suitable list of surrogate parameters to demonstrate and document the reduced operating rate on a plant-by-plant basis. Documentation that the plant is conducting start-up at the reduced rate is the responsibility of the owner or operator.
3. Sulfuric acid plants are authorized to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices, in accordance with this agreement, to minimize emissions are followed. No plant shall be operated (with sulfur as fuel) out of compliance for more than three consecutive hours. Thereafter, the plant shall be shut down. The plant shall be shut down (cease burning sulfur) if, as indicated by the continuous emission monitoring system, the plant is not in compliance within three hours of start-up. Restart may occur as soon as practicable following any needed repairs or adjustments, provided the corrective action is taken and properly documented.
4. Cold Start-Up Procedures.
 - a. Converter.
 - (1) The inlet and outlet temperature at the first two masses of catalyst shall be sufficiently high to provide immediate ignition when SO_2 enters the masses. In no event shall the inlet temperature to the first mass be less than 800°F or the outlet temperature to the first two masses be less than 700°F .

These temperatures are the desired temperatures at the time the use of auxiliary fuel is terminated.

(2) The gas stream entering the converter shall contain SO_2 at a level less than normal, and sufficiently low to promote catalytic conversion to SO_3 .

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved. In no event shall the concentration be less than 96 percent H_2SO_4 .

5. Warm Restart.

a. Converter.

The inlet and outlet temperatures of the first two catalyst masses should be sufficiently high to ensure conversion. One of the following three conditions must be met:

(1) The first two catalyst masses inlet and outlet temperatures must be at a minimum of 700°F ; or

(2) Two of the four inlet and outlet temperatures must be greater than or equal to 600°F ; or

(3) The inlet temperature of the first catalyst must be greater than or equal to 600°F and the outlet temperature greater than or equal to 800°F . Also, the inlet and outlet temperatures of the second catalyst must be greater than or equal to 700°F .

Failure to meet one of the above conditions, requires use of cold start-up procedures.

To allow for technological improvements or individual plant conditions, alternative conditions will be considered by the Department in appropriate cases.

b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved. In no event shall the concentration be less than 96 percent H_2SO_4 .

Steve Smallwood 10-6-89
Steve Smallwood, P.E. Date
Director, Division of Air
Resources Management
Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

[Signature]
Gardiner, Inc., Plant Manager

11/7/89
Date



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

P.E. Certification Statement

Permittee:
IMC-Agrico Company
South Pierce Facility

DRAFT Permit No. 1050055-010-AC
Facility ID No. 1050055

Project type: Air Construction and PSD Permit for Production Increases
at SAPs 10 and 11, and associated molten sulfur handling and storage

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

A.A. Linero, P.E.
Registration Number: 26032

7/8/97

Date

Department of Environmental Protection
Bureau of Air Regulation
New Source Review Section
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Phone (850) 488-1344
Fax (850) 922-6979

7/8/97

Memorandum

Florida Department of Environmental Protection

TO: ~~Clair Fancy~~ *agf* 7/8
THRU: Al Linero *aa Lin* 7/8
FROM: Cleve Holladay *CH* 7/8
DATE: July 8, 1997
SUBJECT: IMC-Agrico Company/South Pierce Facility
Permit No: 1050055-010-AC/PSD-FL-235

Attached is the public notice package, technical evaluation and preliminary determination, and draft permit conditions for IMC-Agrico Company's requested production increase for their Sulfuric Acid Plants Nos. 10 and 11 and throughput increase for their molten sulfur storage and handling system. The permit will allow them to increase the sulfuric acid production of these two double absorption sulfuric acid plants from 2,700 to 3,000 tons per day (TPD) of 100 percent sulfuric acid, each. The change in the combined total production of 100 percent sulfuric acid by these plants will be from 5,400 to 6,000 TPD. The molten sulfur throughput rate will proportionately increase from 650,000 to 725,000 tons per year (TPY). Because SO₂, sulfuric acid mist, and NO_x emissions increase by greater than PSD-significant amounts, PSD review is required. The projected emissions increases from the project will not result in any predicted violations of any ambient air quality standards or PSD increments.

I recommend your approval and signature.