



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Carol M. Browner

FROM: Steve Smallwood *[Signature]*

DATE: April 17, 1992

SUBJ: Approval of Construction Permits AC 53-201152 & -199112
Agrico Chemical Company

Attached for your approval and signature are ^{15 one} ~~two~~ permits prepared by the Bureau of Air Regulation for the above mentioned company to modify the existing molten sulfur storage and handling facility and two sulfuric acid plants.

The applicant submitted comments that resulted in the correction of several typographical errors in the permit and a relaxation of a compliance test requirement.

The NPS asked for clarification on the actual emissions listed in the evaluation, recommended that the BACT be lowered to the actual reported emissions, and asked for additional modeling of the ambient air impact on the Chassahowitzka Class I Area. An explanation for the actual emissions calculations is attached to the permit. No change was made to the BACT determination.

I recommend your approval and signature.

CF/WH/plm

Attachments

** Carol - Note: The 1st ~~was~~ ^{molten sulfur storage} prepared for my signature because it is not a "PSD" permit - it's a regular state construction permit. The 2nd permit is a "PSD" permit. However both are needed for the company to proceed. Since they are so closely related, I thought you should look at both together.*

[Signature]
4-17-92

The two pages you need to sign are paper clipped.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMITS

In the matter of an
Application for Permit by:

Mr. Selwyn Presnell
Agrico Chemical Company
P. O. Box 1110
Mulberry, Florida 33860


DER File No. AC 53-201152
AC 53-199112
Polk County

Enclosed are Permit Numbers AC 53-201152 and 53-199112 (PSD-FL-179) for modifications to the molten sulfur storage and handling facility and Nos. 10 and 11 sulfuric acid plants at Agrico's South Pierce facility located on SR 630 near Fort Meade, Polk County, Florida, issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMITS and all copies were mailed before the close of business on 4-17-92 to the listed persons.

Clerk Stamp

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



(Clerk)

4-17-92
(Date)

Copies furnished to:
Bill Thomas, SWD
Jewell Harper, EPA
John Koogler, P.E.
Chris Shaver, NPS

Final Determination

Agrico Chemical Company
South Pierce, Polk County, Florida

SULFURIC ACID PRODUCTION MODIFICATION

Molten Sulfur Storage and Handling Facility
File No.: AC 53-201152

Sulfuric Acid Plants Nos. 10 and 11 Modification
File No.: AC 53-199112 (PSD-FL-179)

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

April 17, 1992

Final Determination

The Technical Evaluation and Preliminary Determination for the permits to construct (modify) the existing molten sulfur storage and handling system (AC 53-201152) and the Nos. 10 and 11 sulfuric acid plants (AC 53-199112/PSD-FL-179), was distributed on March 11, 1992. The Notice of Intent to Issue was published in the Polk County Democrat on March 12, 1992. Copies of the evaluation were available for public inspection at the Department's Tampa and Tallahassee offices. The only comments received on the Department's Intent to Issue the permits were from the applicant and the National Park Service (NPS).

The applicant noted that the description on the first page of the permit for the molten sulfur storage and handling system has a typographical error in it and asked the Department to revise Specific Condition No. 8 to require only those changes likely to increase emissions be reported to the Department. The applicant also reported typographical errors in Specific Condition No. 7 for the sulfuric acid plant modifications and asked that no compliance tests be required on the modified plants until 60 days after a plant exceeds the production of 2200 TPD. Under the current Permits to Operate, each plant can produce up to 2200 TPD.

The above requests are acceptable to the Department. In response to the comments, the Department has:

1. Changed the description on the first sheet of permit No. AC 53-201152 to show that the correct capacity of the truck pit is 670 ST.
2. Clarified Specific Condition No. 8 of permit No. AC 53-201152 to require only the changes that are likely to increase emissions be reported to the Department.
3. Changed the units for the sulfuric acid production capacity in Specific Condition No. 7 of permit No. AC 53-199112 from TPH to TPD.
4. Changed Specific Condition No. 7 of permit No. AC 53-199112 to require the initial compliance test be done in 60 days after exceeding the production capacity of 2200 TPD.

The NPS noted that the actual emissions listed in the evaluation were inconsistent and recommended that the allowable emissions proposed in the BACT (new source performance standard for sulfuric acid plants) be reduced to the actual emissions reported for the affected plants. They also requested additional modeling to further refine the ambient air impact of this modification on the Chassahowitzka Class I Area.

Koogler & Associates' April 10, 1992, letter explained that the actual emissions from the plants, in lbs/hr and lbs/ton, are consistent. However, because the hourly production rate is not consistent, the annual emissions in TPY do not correlate with the hourly emissions.

Emissions from new sulfuric acid plants will be lower than the new source performance standards. However, as the catalyst in these plants age, it becomes less efficient and emissions increase. Periodically, the catalyst is rejuvenated by removing the fines that have formed and replacing it with new catalyst. The packing in the adsorption tower is generally cleaned at the same time. This maintenance improves the efficiency and lowers the emissions. The Department believes that the NSPS standard of 4 lbs sulfur dioxide and 0.15 lbs acid mist per ton of acid produced, which can be exceeded only during plant startup, is reasonable for BACT for this plant at this time. The applicant also remodeled the plant's impact on the Class I Area as directed by the NPS. These results were the same as those contained in the preliminary determination and are acceptable to the DER and NPS.

The final action of the Department will be to issue construction permits AC 53-201152 and 53-199112 (PSD-FL-179) as proposed in the Technical Evaluation and Preliminary Determination.

ATTACHMENT 1

Unit/Operation : Sulfuric Acid Plants 10 & 11

Permit No. : AC53-199112, PSD-FL-179

Amendment Request

The above referenced permit contains an emission limitation for nitrogen oxides. To our knowledge, the NOx limit in the permit is not based on a regulatory standard, nor does it reflect a limitation requested by IMC-Agrico to avoid a specific rule applicability (e.g. PSD, etc.).

Therefore, it is requested that the construction permit be amended as follows:

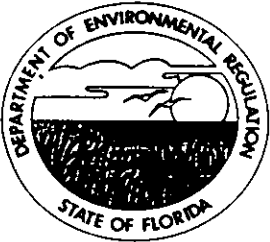
Page 5, Specific Condition No. 4:

Delete this specific condition which contains emission limits for NOx.

Page 6, Specific Condition No. 6:

Delete the NOx testing requirement from this specific condition and the corresponding reference to EPA Method 7E.





Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Agrico Chemical Company
Post Office Box 1110
Mulberry, Florida 33860

Permit Number: AC 53-201152
Expiration Date: Jan. 1, 1994*
County: Polk
Latitude/Longitude: 27°45'52"N
81°56'19"W
Project: Molten Sulfur Storage
and Handling System

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

For the modification to increase the sulfur throughput rate to a maximum of 2050 TPD and 650,000 TPY for the molten sulfur storage and handling facility. The facility consists of a rail and truck unloading system; two 1050 short ton (ST) molten sulfur storage tanks; one 100 ST rail pit; one 670 ST truck pit; and the associated transfer pumps and piping. The molten sulfur system is located at the Agrico's South Pierce facility on SR 630 near Fort Meade, Polk County, Florida 33841. The UTM coordinates of this facility are Zone 17, 407.5 km E and 3071.3 km N.

*This permit is void if construction does not commence within 18 months of its issuance, if construction is discontinued for more than 18 months, or if construction is not completed and the modified plant placed in operation within a reasonable time.

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

Attachments are listed below:

1. Agrico's application received August 12, 1991.
2. DER's letter dated August 26, 1991.
3. Koogler & Associates' letter dated October 22, 1991.
4. Koogler & Associates' letter dated February 27, 1992.
5. Agrico's letter dated March 19, 1992.
6. Koogler & Associates' letter dated April 10, 1992.
7. U.S. Department of Interior's letter dated April 10, 1992.

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-201152
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-201152
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

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

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

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

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

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-201152
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

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.

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

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

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

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-201152
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. Agrico's molten sulfur storage and handling facility shall be allowed to operate continuously (i.e., 8760 hours/year).
2. The maximum molten sulfur throughput rate shall neither exceed 2050 tons per day (TPD), nor 650,000 tons per year (TPY), based on the combined acid production capacity of 5400 TPD 100% sulfuric acid for the Nos. 10 and 11 plants.
3. Visible emissions (VE) shall not exceed 20% opacity from any source in the molten sulfur system.
4. The permittee shall employ procedures to minimize emissions from the molten sulfur system pursuant to the applicable requirements of F.A.C. Rule 17-2.600(11)(a) [Molten Sulfur Storage and Handling Facilities]. The permittee shall also comply with other applicable provisions of F.A.C. Chapters 17-2 and 17-4.
5. No objectionable odors shall be allowed, in accordance with F.A.C. Rule 17-2.620(2) [Objectionable Odor Prohibited].
6. The permittee shall employ proper operation and maintenance procedures to control emissions from the molten sulfur storage and handling facility as specified in F.A.C. Rule 17-2.600(11).

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-201152
Expiration Date: January 1, 1994

SPECIFIC CONDITIONS:

7. Initial compliance tests shall be conducted in accordance with the July 1, 1991, version of 40 CFR 60, Appendix A, using EPA Method 9, for visible emissions. 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 facility issued by the Southwest District.

8. Any change in the method of operation, equipment or operating hours which would reasonably be expected to result in an increase in emissions shall be submitted to DER's Southwest District office for approval.

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

Source		Estimated Emissions				
		PM/PM ₁₀	SP	SO ₂	TRS/H ₂ S	VOC
East Tank (No. 1)	lb/hr (max)	0.50	0.25	0.65	0.38	0.46
	lb/hr (avg)	0.32	0.16	0.41	0.24	0.29
	TPY	1.40	0.70	1.79	1.06	1.28
West Tank (No. 2)	lb/hr (max)	0.50	0.25	0.65	0.38	0.46
	lb/hr (avg)	0.32	0.16	0.41	0.24	0.29
	TPY	1.40	0.70	1.79	1.06	1.28
Truck Pit	lb/hr (max)	0.92	0.46	1.19	0.70	0.85
	TPY	4.06	2.03	5.22	3.07	3.71
Rail Pit	lb/hr (max)	0.22	0.11	0.28	0.16	0.20
	lb/hr (avg)	0.02	0.01	0.02	0.01	0.02
	TPY	0.08	0.04	0.10	0.06	0.07

10. A minimum of 15 days prior written notification of the compliance tests shall be given to DER's Southwest District office. The compliance test results shall be submitted to the district office within 45 days of test completion.

11. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-201152
Expiration Date: January 1, 1994


SPECIFIC CONDITIONS:

to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

12. An application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 17th day
of April, 1992

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



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



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

Agrico Chemical Company
Post Office Box 1110
Mulberry, Florida 33860

Permit Number: AC 53-199112
PSD-FL-179

Expiration Date: Jan. 1, 1994*
County: Polk
Latitude/Longitude: 27°45'52"N
81°56'19"W

Project: Sulfuric Acid Plants
Nos. 10 & 11 - Production Increases
to 2700 TPD Per Plant (5400 TPD
total)

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

For the modifications to the existing Nos. 10 and 11 sulfuric acid plants that will increase each plant's production to 2700 TPD 100% sulfuric acid (5400 TPD total for both plants). The plant modifications include installing a new turbogenerator, using more efficient economizer units, replacing the tower and acid coolers with heat recovery systems, and adding more catalyst to the converters. These sources are located at the permittee's South Pierce phosphate fertilizer manufacturing facility on SR 630 near Fort Meade, Polk County, Florida 33841. The UTM coordinates of this facility are Zone 17, 407.5 km E and 3071.3 km N.

*This permit is void if construction does not commence within 18 months of its issuance, if construction is discontinued for more than 18 months, or if construction is not completed and the modified plant placed in operation within a reasonable time.

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

Attachments are listed below:

1. Agrico's application received June 28, 1991.
2. DER's letter dated June 26, 1991.
3. Koogler & Associates' letter dated October 22, 1991.
4. Koogler & Associates' letter dated February 27, 1992.
5. Koogler & Associates' letter dated April 10, 1992.
6. U.S. Department of Interior's letter dated April 10, 1992

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-199112
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

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

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-199112
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

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

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

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

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

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-199112
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

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.

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

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

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

13. This permit also constitutes:

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

14. The permittee shall comply with the following:

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

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-199112
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The maximum production rate of each of the sulfuric acid plants (Nos. 10 & 11) shall not exceed 2700 tons per day based on 100% H₂SO₄ (5400 TPD for both plants).

2. Sulfur dioxide emissions from each plant shall not exceed 4 lbs/ton of 100% sulfuric acid produced, 450.0 lbs/hr, and 1971.0 tons/yr.

3. Sulfuric acid mist emissions from each plant shall not exceed 0.15 lb/ton of 100% sulfuric acid produced, 16.9 lbs/hr, and 73.9 tons/yr.

4. Nitrogen oxides emissions from each plant shall not exceed 0.12 lb/ton of 100% sulfuric acid produced, 13.5 lbs/hr, and 59.1 tons/yr.

The nitrogen oxides limits are subject to revision if sufficient test data indicate that the emission factor is improper.

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-199112
Expiration Date: January 1, 1994

SPECIFIC CONDITIONS:

5. Visible emissions from each plant shall not exceed 10% opacity.

6. A continuous emission monitor shall be used to monitor sulfur dioxide emissions from each plant in accordance with 40 CFR 60, Subpart H (July 1, 1991), Standards of Performance for Sulfuric Acid Plants. Initial and annual compliance tests shall be conducted using: EPA Method 7E for nitrogen oxides, EPA Method 8 for sulfur dioxide and acid mist, and EPA Method 9 for visible emissions as described in 40 CFR 60, Appendix A (July 1, 1991).

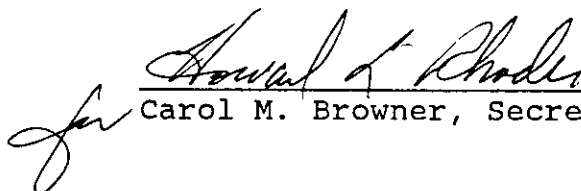
7. The compliance tests shall be conducted at 90 to 100% of the permitted capacity (2430 - 2700 TPH sulfuric acid production) and within 30 days after operating the plant at a rate above 2000 TPH. The Department's Southwest District office shall be notified in writing 15 days prior to source testing. Written reports of the tests shall be submitted to that office within 45 days of test completion.

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

9. An application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. The operation permit application shall include a set of conditions acceptable to the Department for sequential startup/shutdown of the permittee's sulfuric acid plants. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 17 day
of April, 1992

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



Carol M. Browner, Secretary

Best Available Control Technology (BACT) Determination
Agrico Chemical Company
Polk County

The applicant proposes to increase sulfuric acid production to 2700 tons per day each for the Nos. 10 and 11 sulfuric acid plants (5400 TPD total) that are located at the South Pierce phosphate fertilizer manufacturing facility on SR 630 near Fort Meade, Polk County, Florida 33841.

The proposed project will result in a significant increase in emissions of sulfur dioxide (SO₂) and sulfuric acid mist. The project is therefore subject to Prevention of Significant Deterioration (PSD) review in accordance with F.A.C. Rule 17-2.500(5).

The BACT review is part of the PSD review requirements in accordance with F.A.C. Rule 17-2.500(5)(c).

Date of Receipt of a BACT Application: June 28, 1991.

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 lb/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

Basis of Review:

This determination was based upon input from the applicant, EPA Region IV, and the Bureau of Air Regulation.

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-2, 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

Agrico Chemical Co.
BACT

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 DER:

<u>Control Technology</u>	Double Absorption/Fiber Mist Eliminators
<u>Pollutant</u>	<u>Emission Limits</u>
SO ₂	4.0 lb/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

BACT Determination Rationale

DER's BACT determination is the same as that proposed by the applicant, determinations completed by other states, and Standards of Performance for Sulfuric Acid Plants, 40 CFR 60 Subpart H, (double absorption process). The process in itself is the control technology for SO₂. The emission limits reflect conversion efficiency of around 99.7% of SO₂ to H₂SO₄. High efficiency mist eliminators are considered BACT for sulfuric acid mist. A review of BACT/LAER Clearinghouse indicates that the double absorption technology and the use of high efficiency mist eliminators is representative of BACT using the top-down approach.

Agrico Chemical Co.
BACT

Environmental Impact Analysis

The impact analysis for the BACT determination is based on 8,760 hours/year operation. The increment impact analysis and the ambient air quality analysis resulted in the following for SO₂ emissions:

<u>Avg Time</u>	<u>Increment Impact (ug/m³)</u>	<u>Deminimus (ug/m³)</u>	<u>Predicted Ambient Air Quality Impact (ug/m³)</u>	<u>Fla. AAQS (ug/m³)</u>
Annual	6.8	N/A	38.9	60
24-hr	80.2	13.0	255.8	260
3-hr	266.6	N/A	544.1	1300

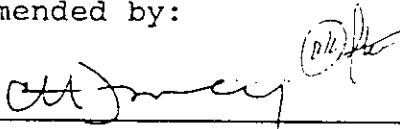
Conclusion

The incremental impact and the ambient air quality impact from SO₂ emissions due to the proposed modification is in compliance with all air pollution regulations. The impacts associated with the proposed increase in production support the Department's determination that the emission limits established herein represent BACT.


Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E.
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:


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

Approved by:

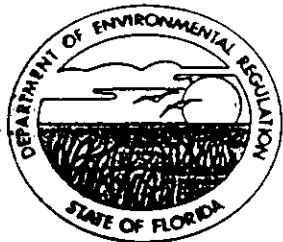

Carol M. Browner, Secretary
Dept. of Environmental Regulation

Date

April 17, 1992

Date

April 17 1992



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

Agrico Chemical Company
Post Office Box 1110
Mulberry, Florida 33860

Permit Number: AC 53-199112
PSD-FL-179

Expiration Date: Jan. 1, 1994*
County: Polk
Latitude/Longitude: 27°45'52"N
81°56'19"W

Project: Sulfuric Acid Plants
Nos. 10 & 11 - Production Increases
to 2700 TPD Per Plant (5400 TPD
total)

*Tested Annual
Ear Nox
TEST requirement
~ 1/3 less than std.*

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

For the modifications to the existing Nos. 10 and 11 sulfuric acid plants that will increase each plant's production to 2700 TPD 100% sulfuric acid (5400 TPD total for both plants). The plant modifications include installing a new turbogenerator, using more efficient economizer units, replacing the tower and acid coolers with heat recovery systems, and adding more catalyst to the converters. These sources are located at the permittee's South Pierce phosphate fertilizer manufacturing facility on SR 630 near Fort Meade, Polk County, Florida 33841. The UTM coordinates of this facility are Zone 17, 407.5 km E and 3071.3 km N.

*This permit is void if construction does not commence within 18 months of its issuance, if construction is discontinued for more than 18 months, or if construction is not completed and the modified plant placed in operation within a reasonable time.

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

Attachments are listed below:

1. Agrico's application received June 28, 1991.
2. DER's letter dated June 26, 1991.
3. Koogler & Associates' letter dated October 22, 1991.
4. Koogler & Associates' letter dated February 27, 1992.
5. Koogler & Associates' letter dated April 10, 1992.
6. U.S. Department of Interior's letter dated April 10, 1992

PERMITTEE:
Agrico Chemical Company

Permit Number: AC 53-199112
Expiration Date: January 1, 1994

GENERAL CONDITIONS:

records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The maximum production rate of each of the sulfuric acid plants (Nos. 10 & 11) shall not exceed 2700 tons per day based on 100% H₂SO₄ (5400 TPD for both plants).

2. Sulfur dioxide emissions from each plant shall not exceed 4 lbs/ton of 100% sulfuric acid produced, 450.0 lbs/hr, and 1971.0 tons/yr.

3. Sulfuric acid mist emissions from each plant shall not exceed 0.15 lb/ton of 100% sulfuric acid produced, 16.9 lbs/hr, and 73.9 tons/yr.

4. Nitrogen oxides emissions from each plant shall not exceed 0.12 lb/ton of 100% sulfuric acid produced, 13.5 lbs/hr, and 59.1 tons/yr.

The nitrogen oxides limits are subject to revision if sufficient test data indicate that the emission factor is improper.