



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

July 26, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Dear Mr. Presnell:

Re: File No. AC 53-199112, Sulfuric Acid Plants

The Department has made a preliminary review of your application for permits to modify the Nos. 10 and 11 sulfuric acid plants at Agrico's South Pierce phosphate fertilizer chemical plant in Polk County. Before this application can be processed, the Department will need the following information:

1. What facilities will use the additional sulfuric acid produced by the modified plants? Where are these facilities located?
2. What is the maximum rating of the turbogenerator? How many MW will be generated when the acid production is 2700 TPD?
3. In order to determine whether a proposed modification will result in significant net emissions increases of regulated pollutants, the increase or decrease is quantified by using the proposed "new allowable" emissions minus the "old actual" emissions. The old actual emissions must be based on the previous two years of operating data unless some other period is deemed to be more representative of normal operating conditions. Please recalculate the changes in all regulated pollutant emissions using this criteria. It appears the project may also be subject to PSD for nitrogen oxides based on this criteria. Please provide copies of the annual operating

reports for the sulfuric acid plants during the 2 years selected to support your actual emission calculations. Please redo the appropriate modeling analyses using the corrected input values. The Department's files also indicate that the

two sulfuric acid plants were permitted at only 1800 tons per day during the PSD SO₂ baseline year. This would impact PSD increment consumption. In addition, the existing molten sulfur system (current permit number AO 53-187290) which was permitted after-the-fact in 1990 has never been included in any modeling analysis. Emissions due to this source should be included in the appropriate modeling analyses.

4. The application does not contain process flow diagrams for the proposed modified facility. Although figures 3-1A and 3-1B purport to be process flow diagrams, they are, in actuality, plant equipment layout diagrams. Please submit process flow diagrams for the actual (not typical) proposed modified facility.
5. The plant equipment layout diagrams (figures 3-1A and 3-1B) seem to indicate that drying towers will be utilized. Please confirm that the drying towers will be utilized in the proposed modified facility. Utilization of the drying towers should be reflected in the process flow diagrams requested above.
6. Please provide the Department with reasonable assurance that the efficiency of the converters will not be degraded while operating at the proposed new process conditions and higher process rates. The answer to this question must:
 - a. completely describe the process streams that each converter was originally designed to handle,
 - b. completely describe the process streams that each converter will handle in the proposed modified facility, and
 - c. explain why the differences between (a) and (b) will not degrade converter efficiency.
7. Please provide the Department with reasonable assurance that the efficiency of the absorbers will not be degraded while operating at the proposed new process conditions and higher process rates. The answer to this question must:
 - a. completely describe the process streams that each absorber was originally designed to handle,
 - b. completely describe the process streams that each absorber will handle in the proposed modified facility, and

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- c. explain why the differences between (a) and (b) will not degrade absorber efficiency.
8. Please provide the Department with reasonable assurance that the efficiency of the mist eliminators will not be degraded while operating at the proposed new process conditions and higher process rates. The answer to this question must:
 - a. completely describe the process streams that each mist eliminator was originally designed to handle,
 - b. completely describe the process streams that each mist eliminator will handle in the proposed modified facility, and
 - c. explain why the differences between (a) and (b) will not degrade mist eliminator efficiency.
 9. Please submit emissions reports demonstrating compliance with F.A.C. Rule 17-2.600(2)(b) and 40 CFR 60, Subpart H, from an operating sulfuric acid plant utilizing the same Monsanto process proposed for this modified facility.

We will resume processing this application after we receive the requested information. If you have any questions on this matter, please write to me at the letterhead address or call Willard Hanks (engineering) or Cleve Holladay (modeling) at 904-488-1344.

Sincerely,



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

CHF/WH/plm

c: Bill Thomas, SWD
John Koogler, P.E.

PS Form 3800, June 1990

P 832 538 663

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3. Article Addressed to:
**Mr. Selwyn Presnell
Environmental Manager
Agrico Chemical Company
P. O. Box 1110
Mulberry, FL 33860**

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P 832 538 663

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PS Form 3811, October 1990 U.S. GPO: 1990-273-861 **DOMESTIC RETURN RECEIPT**