



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

DEC - 2 1993

RECEIVED

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

DEC - 7 1993

Division of Air
Resources Management

DEC 07 1993

OFFICE OF THE SECRETARY

4APT-AEB

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of
Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: IMC-Agrico Company, Nichols, Polk County, Florida
(PSD-FL-204)

Dear Mr. Fancy:

This is to acknowledge receipt of your technical evaluations, preliminary determinations and draft Prevention of Significant Deterioration (PSD) permits for the above referenced facility by copies of your two letters to Mr. John A. Brafford of IMC-Agrico Company, both dated October 28, 1993. The major modification proposed consists of increases in both sulfuric acid plant and diammonium phosphate (DAP) plant production rates. Sulfuric acid production will increase from 2,000 TPD to 2,500 TPD of 100% acid. DAP production will increase from 80 TPH to 100 TPH. The sulfur throughput rate to the existing molten sulfur storage and handling facility will increase from 275,000 TPY to 365,000 TPY. As discussed between Mr. Preston Lewis of your staff and Mr. Stan Kukier of my staff on November 23, 1993, we have reviewed the package as submitted and have no adverse comments.

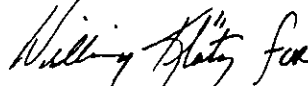
We agree with your determination that double absorption process technology and high efficiency mist eliminators represent BACT for the IMC-Agrico facility sulfuric acid plant SO₂ and sulfuric acid mist emissions. No physical modifications to the existing material handling system will be required to handle the additional sulfur throughput. A wet scrubber system consisting of a multi-stage combination of both venturi and packed bed crossflow scrubbers may also be considered representative of BACT for DAP plant reactor/granulator, dryer, and cooler particulate and fluoride emissions. Weak phosphoric acid and plant pond water are utilized as scrubbing mediums in the venturi and packed section scrubbers, respectively. Modifications to existing DAP process equipment will not be required. Both particulate and fluoride BACT emission rate limits, 0.41 lb/ton P₂O₅ and 0.0417 lb/ton P₂O₅, respectively, are substantially lower than those originally proposed by the applicant. The above emission rate limits are based on the results of DAP plant compliance stack testing performed between 1980 and 1993.

Mr. Lewis has indicated that the air quality analysis presented by the applicant is satisfactory.

The IMC-Agrico Company chemical fertilizer facility sulfuric acid plant will be subject to the requirements of 40 CFR Part 60, Subpart H - Standards of Performance for Sulfuric Acid Plants. The IMC-Agrico Company chemical fertilizer facility diammonium phosphate plant will be subject to the requirements of 40 CFR Part 60, Subpart V - Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants.

Thank you for the opportunity to comment on this package. If you have any questions, please contact Mr. Stan Kukier of my staff at (404) 347-5014.

Sincerely yours,



Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: S. Crif
C. Holladay
B. Thomas, SW Dist.
J. Bunnell, NPS
L. Novak, Polk Co.
J. Krogler, K&A