



**Agri-Chemicals**

Division of United States Steel

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April 24, 1985

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BAQM

Mr. C. H. Fancy  
Deputy Chief  
Bureau of Air Quality Management  
Florida Department of  
Environmental Regulation  
Northwest District Branch Office  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Subject: USS Agri-Chemicals  
Ft. Meade Chemical Complex  
Sulfuric Acid Plant & Phosphoric Acid Plant Modifications

Dear Mr. Fancy:

In partial response to your letter of February 21, 1984, addressed to J. B. Kongler, regarding construction permits to modify two existing sulfuric acid plants and two existing phosphoric acid plants at the USS Agri-Chemicals (USSAC) Ft. Meade Chemical Complex technical information was forwarded to your office and received on May 21, 1984. The issues not addressed in our response received on May 21st were discussed during a meeting with your staff in Tallahassee on July 27, 1984, and are addressed herein. A copy of your letter of February 21st is attached for your ready reference.

On May 21, 1984, information from Sholtes & Koogler, Environmental Consultants (SKEC) was received in your office regarding documents referenced in the calculation of the fluoride emissions from the process water cooling pond. The documents included TRW (an EPA Contractor) interoffice correspondence dated August 27, 1980 and sections of EPA document 650/2-74-095. It is our understanding that the information, as received in your office on May 21, 1984, satisfies the request in your letter of February 21, 1984 for information on that specific issue.

Regarding the other issues addressed in your correspondence of February 21, 1984, representatives of USSAC met with Mr. Willard Hanks in your offices on July 27, 1984 to discuss the specific information that would be required to provide your staff with the information they need to complete the review of the subject permit applications. Based upon this meeting, the following information is provided to complete the Construction Permit applications for the modifications to the sulfuric acid and phosphoric acid plants.

### Permit Fees

An additional permit fee of \$1,200 is enclosed. This will complete the total fee of \$2,200 required for the four permit applications; \$1,000 for each of two sulfuric acid plants and \$100 for each of two phosphoric acid plants.

### Physical Modifications to the Sulfuric Acid Plants

In the permit applications for the revisions to the sulfuric acid plants, it was stated that certain physical modifications would be necessary. As discussed during the July 27, 1984 meeting, the details of these physical modifications are not now known and will not be known until detailed engineering is completed to determine just where bottle-necks might occur. The one physical change that will almost certainly be involved is an increase in the amount of catalyst in the converter of the sulfuric acid plant. Equipment in the sulfuric acid plants that will not require modification include the demisters for acid mist control, the sulfur burner, the absorber, the cooling tower or the blower.

In summary, USSAC can only state that the physical modifications that will be required are expected to be minor in nature and will not be fully known until final engineering is completed. It can be stated, however, that none of the changes will effect compliance with New Source Performance Standards (NSPS) for the sulfuric acid plant.

### Phosphoric Acid Plant Modifications

No major or significant changes are anticipated. The existing pollution control system is adequate to control emissions at the acid production units and product storage tank farm.

### Gypsum Disposal Area

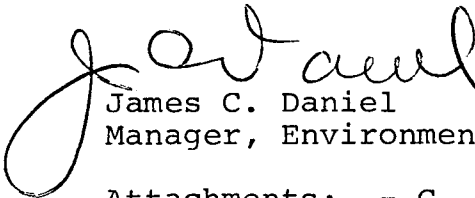
The life of the gypsum disposal area associated with phosphoric acid production is a function of the phosphoric acid production capacity of the USSAC Ft. Meade Chemical Complex. The modifications to the two phosphoric acid plants will result in a 25 percent increase in the permitted production rates of the plants; from 800 tpd, each, to 1,000 tpd, each. When the plants operate at a production capacity 25 percent greater than presently permitted, the life of the gypsum disposal area will be decreased in proportion to the incremental change in production.

More germane to the subject permit applications is the wetted surface area on the gypsum disposal area and in the process water cooling ponds. The presently permitted wetted area in both the gypsum disposal area and the process water cooling pond is sufficient to provide the necessary cooling. There will be no increase in the wetted surface area on either the gypsum disposal area or the cooling ponds. The changes in fluoride emission rates from these wetted surface areas have been addressed in the original permit applications.

The information provided herein should complete the permit applications for the requested rate increases for the sulfuric acid and phosphoric acid plants at the USSAC Ft. Meade Chemical Complex. If additional information is required or if there are any questions regarding information contained herein, please do not hesitate to contact us.

Very truly yours,

USS AGRI-CHEMICALS



James C. Daniel  
Manager, Environmental and Special Projects

Attachments: - C. H. Fancy letter to J. B. Koogler, February 21, 1984  
- \$1,200 application fee  
- 4 copies each, construction permit applications to modify permitted Plants:

A053-69837 Sulfuric Acid Manufacture  
A053-69838 Sulfuric Acid Manufacture  
A053-69839 Phosphoric Acid Manufacture  
A053-69840 Phosphoric Acid Manufacture

JCD:cam

cc: Dr. Richard Garrity, DER Tampa