



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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ATLANTA, GEORGIA

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Division of Air
Resources Management

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

Dear Mr. Fancy:

On April 9, 1992, John Notar of the Air Quality Branch contacted you regarding a request to extend the 30-day comment period for the Agrico Chemical Company's (Agrico) Prevention of Significant Deterioration (PSD) application to modify their South Pierce sulfuric acid production facility. This comment period extension was requested because we have not yet received a final MESOPUFF II dispersion modeling analysis for the Chassahowitzka Wilderness Area (WA), a class I air quality area. As you know, the South Pierce facility is located 126 km southwest of the Chassahowitzka WA. I understand that the Florida Department of Environmental Regulation (FDER) has agreed to extend the comment period to allow us 5 days from the time we receive the analysis, to submit followup comments on the Agrico project. Our Air Quality Branch has discussed the MESOPUFF II analysis with Agrico's consultant, and they agreed to submit the final analysis shortly. Until that time we offer the following comments for your consideration.

The proposed modification would allow Agrico to increase the production rate at the plant from 2,000 to 2,700 tons per day, resulting in significant increases in sulfur dioxide (SO₂) and sulfuric acid mist (H₂SO₄) emissions. You may recall that in an earlier letter to you, we indicated that we did not oppose Agrico's commencing construction on the heat recovery project associated with the PSD application, as long as they agreed to satisfactorily address our concerns about increment consumption in the wilderness area. As indicated above, Agrico has not yet completed this analysis.

The initial dispersion modeling that Agrico performed with the Environmental Protection Agency's Industrial Source Complex Short Term guideline model indicated that the SO₂ emissions from the proposed modification would significantly contribute to a violation of the 24-hour class I increment in the Chassahowitzka WA. Agrico, at our request, then performed an additional

modeling analysis using the EPA long-range transport MESOPUFF II model, to predict the cumulative impact at Chassahowitzka from the proposed increased emissions from the Agrico modification, combined with emissions from other increment-consuming sources.

The results of this analysis also indicate that there would be a violation of the class I 24-hour SO₂ increment. However, the analysis did not indicate if Agrico would contribute significantly to the modeled increment violation. The additional analysis that is currently being performed by Agrico's consultant should provide this information. If Agrico's impact to the class I increment violation is below our significant increment level, we would not oppose the issuing of the Agrico permit.

Regarding the Best Available Control Technology (BACT) analysis, we agree that Agrico's proposal to use double absorption to control SO₂ emissions and high efficiency mist eliminators to control H₂SO₄ emissions represents BACT. However, Agrico simply proposes the New Source Performance Standards (NSPS) for these pollutants as the BACT limit. The actual emissions data submitted by Agrico indicate that limits lower than the respective NSPS are achievable for these units. For example, compliance test results for years 1986 through 1990 indicate that the SO₂ rate for Unit 10 ranged from 2.58 pounds per ton (lb/ton) to 3.28 lb/ton, and for Unit 11 the rate ranged from 3.41 to 3.56 lb/ton. The same data show that the H₂SO₄ emission rate from Unit 10 ranged from 0.08 to 0.143 lb/ton, and for Unit 11 the rate ranged from 0.102 to 0.128 lb/ton. The NSPS limits for SO₂ and H₂SO₄ are 4.0 lb/ton and 0.15 lb/ton, respectively.

The NSPS is the "floor" in the BACT analysis. In other words, a BACT limit cannot be less stringent than a NSPS, but oftentimes is more stringent than such standards. In addition, a key consideration in the BACT analysis is the need to comply with the PSD increments and Ambient Air Quality Standards (AAQS). Because of documented violations of the class I SO₂ increment (24-hr average) at the Chassahowitzka WA, the FDER should take every opportunity to minimize SO₂ emissions in the area.

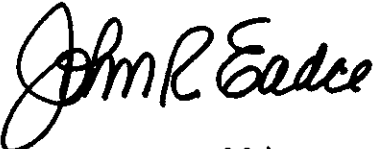
Also, the results of Agrico's AAQS analysis indicate that the maximum predicted concentration is nearly 99 percent of the 24-hr Florida AAQS (256 of the 260 ug/m³ standard). Consequently, in order to be able to accommodate additional industrial growth in the area, and to ensure future compliance of the Florida AAQS, the FDER should establish allowable permit conditions for new sources that reflect the actual capabilities of the proposed best available emissions control technology. In the case of Agrico, although we realize that the SO₂ and H₂SO₄ emissions vary somewhat as the catalyst ages, based on the historical operating data discussed above, it would appear that emission rates more stringent than the proposed NSPS limits are achievable at the

facility. Therefore, we ask that the FDER establish SO₂ and H₂SO₄ limits for Units 10 and 11 that are more representative of those achievable, rather than the less stringent NSPS levels.

In conclusion, model results indicate an increment violation at the Chassahowitzka WA. It is unclear at this time whether Agrico contributes significantly to that violation. Therefore, we will send our final comments regarding the Chassahowitzka WA increment issue within 5 days of receiving the additional analysis. However, we do ask that the FDER establish SO₂ and H₂SO₄ limits for Units 10 and 11 that are more representative of those achievable, rather than the less stringent NSPS levels that are currently proposed for the Agrico facility.

If you have any questions regarding our comments on the Agrico application, please call Tonnie Maniero of our Air Quality Branch in Denver at 303/969-2071.

Sincerely yours,


for James W. Pulliam, Jr.
Regional Director

cc:
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