



**U.S. FISH & WILDLIFE SERVICE  
AIR QUALITY BRANCH**

P.O. BOX 25287, Denver, CO 80225-0287

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**FACSIMILE COVER SHEET**

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Date: 12/29

Telephone: (303) 969-2617

Fax: (303) 969-2822

To: Cleve Holladay

From: Ellen Porter

Subject: IMC

Number of Pages: 2  
(Including this cover sheet)

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Office Location: 7333 West Jefferson Ave, Suite 450, Lakewood, CO 80235

**MEMORANDUM**

**To:** Ellen Porter

**From:** Don Shepherd

**Subject:** IMC-Agrico BACT Review

**Date:** December 29, 1997

IMC-Agrico proposes to add a third kiln to its New Wales facility to calcine phosphate rock for the production of an animal feed supplement. Equipment to be added would also include a cooler and additional screens and mills for product sizing. IMC-Agrico's application is based on the premise that it triggers regulations for the Prevention of Significant Deterioration (PSD) of air quality for fluorides, particulate matter, and sulfur dioxide (SO<sub>2</sub>). Any pollutant subject to PSD must be controlled through the use of Best Available Control Technology (BACT).

One overarching issue that must be addressed is the effect of the proposed project upon other existing emission units at this source. Although IMC-Agrico has quantified the increases in emissions that occur at the existing dryer due to its utilization to feed the new kiln, it should also include the increase in emissions that would occur at the phosphoric and sulfuric acid plants that also supply materials to the new kiln. Because the new kiln will require the production of additional phosphoric acid to supply its input, the resulting increase in fluorides must be considered. Furthermore, because production of more phosphoric acid typically requires the use of more sulfuric acid and phosphate rock, the SO<sub>2</sub> and PM emissions that result from production and use of these substances at this source must be included. For example, the additional 83,220 tons per year (TPY) of phosphoric acid required for the new kiln will also require the production of almost 100,000 TPY of sulfuric acid. If SO<sub>2</sub> emissions are limited to 4.0 lb/ton (New Source Performance Standard), the resulting SO<sub>2</sub> emissions could approach 200 TPY.

Although the control technology proposed, a packed bed scrubber using process water and alkaline slurry, represents BACT for this type of process, no control efficiency is proposed. Instead of simply defaulting to the state's limit of 0.37 lb fluoride per ton of phosphoric acid input for existing sources, a limit requiring that the scrubber demonstrate 99.9% fluoride control efficiency should be included. This level of control is reflective of that required by the permit issued by Florida to Farmland Hydro in 1992 for a phosphate fertilizer process, and would insure that the scrubber is operated to its capabilities.