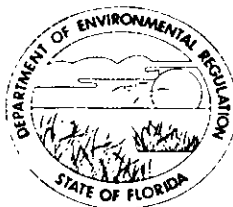


STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR  
VICTORIA J. TSCHINKEL  
SECRETARY

September 7, 1984

Mr. George Townsend  
Environmental Supervisor  
AMAX Chemical Corporation  
Post Office Box 790  
Plant City, Florida 33566

Dear Mr. Townsend:

Hillsborough County Environmental Protection Commission (HCEPC) and the department have made an initial review of AMAX Chemical Corporation's applications for permits to construct a phosphoric acid defluorinating plant and install a dust collector on a conveyor belt transfer point. Before the applications can be considered complete, we will need the following information.

Phosphoric Acid Defluorination Plant (file No. AC 29-091316)

1. On the drawings D-1 and D-2 or a separate drawing, show the proposed process equipment and air pollution control equipment (ducts and scrubber) that this application is to cover. Also show the operating permit numbers of the adjacent processes.
2. Please provide a process description of the proposed project, with reference to the process flow sheet, and include the chemical reactions that occur in the process.
3. How are raw materials transported to the plant, unloaded, stored, conveyed to process, and air pollutant emissions controlled during each of these operations?
4. Please provide a Best Available Control Technology (BACT) determination for fluorides (Rule 17-2.630, FAC) as required by Rule 17-2.600(3)(a)9., FAC. Consider a spray-cross flow packed bed scrubber in the determination.
5. For the scrubber you recommend as BACT, what is the design scrubber water pressure (in. water), scrubber water flow (GPM), and gas pressure drop (in. water)?

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6. Please revise Section III: A and B to include other materials (water?) to account for the product weight of 51,872 lb/hr which is greater than the 51,649 lb/hr of raw material. What is the P<sub>2</sub>O<sub>5</sub> content of the phosphoric acid used in the process?
7. In Section III: C, what is the basis of the allowable fluoride emissions of 0.18 lb/hr?
8. What is the estimated increase in fluoride emissions from the process water pond as a result of this project?
9. What is the basis of the 25 lb particulate matter/hr and 49.23 lb fluorides/hr inlet loading to the scrubber? What is the basis for the 0.85 percent fluoride content of the phosphoric acid into the plant?
10. Please provide a copy of the calculations that concluded the proposed scrubber will be 98 percent efficient on particulate matter and fluoride emissions. Include the particulate matter particle size distribution of the inlet loading to the scrubber.
11. How will the stack velocity (10 FPS) be measured during the compliance test? Is the correct stack diameter 25 inches?

Conveyor Belt Transfer Point Dust Collector  
(file No. AC 29-091317)

1. On the drawings D-1 and D-2 or a separate drawing, show what conveyor belt the proposed dust collector will control and the operation permit numbers for it (if any) and adjacent process and material handling equipment.
2. Please provide a description of the conveyor belt to be controlled, stating what process equipment discharges on to it and where it discharges to.
3. How will fugitive emissions from the belt and its discharge point be controlled?
4. Are there any other uncontrolled emission points in the CDP material handling system? If so, what plans does the company have to control them?

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5. Did HCEPC agree in writing to accept 0.02 grains/DSCF as the emission standard?
6. What guarantee or specifications did the dust collector manufacturer provide for the emission from his equipment? What is the particle size distribution of the particulate matter to the dust collector?
7. What is the percent moisture in the gas handled by the proposed dust collector?

Sincerely,



C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality  
Management

CHF/WH/agh

cc: Bill Thomas  
Steve Gyrog