

RULE 7041 FLUORIDES - PHOSPHORIC ACID PLANTS (Adopted May 21, 1992, Amended December 17, 1992)

1.0 Purpose

The purpose of this rule is to limit fluoride emissions from wet-process phosphoric acid plants. Testing and monitoring requirements are also specified.

2.0 Applicability

This rule applies to wet-process phosphoric acid plants including any combination of reactors, filters, evaporators, and hotwells which commenced the construction, modification, or reconstruction before October 23, 1974.

3.0 Definitions

3.1 Equivalent  $P_2O_5$  Feed: the quantity of phosphorus, expressed as phosphorus pentoxide, fed to the process.

3.2 Total Fluorides: elemental fluorine and all fluoride compounds as measured by reference methods specified in 40 CFR 60 Appendix A (August 6, 1975), or equivalent or alternative methods.

3.3 Wet-Process Phosphoric Acid Plant: any facility manufacturing phosphoric acid by reacting phosphate rock and acid.

4.0 Requirements

4.1 Emission Standards

The owner or operator of wet-process phosphoric acid plants subject to this rule shall not cause to be discharged into the atmosphere any gases which contain total fluorides in excess of 0.10 lb/ton of equivalent  $P_2O_5$  feed .

5.0 Administrative Requirements

5.1 Testing

All tests to determine compliance shall be conducted in accordance with requirements in the Federal Register 40 CFR 60.8.

## 5.2 Monitoring

The owner or operator of phosphate fertilizer facilities subject to the provisions of this rule shall be required to:

- 5.2.1 Install, calibrate, maintain, and operate a flow monitoring device which can be used to determine the mass flow of phosphorus bearing feed material to the process. The monitoring device shall have an accuracy of  $\pm$  five (5) percent over its operating range.
- 5.2.2 Maintain a daily record of equivalent  $P_2O_5$  content. Percentage  $P_2O_5$  content shall be determined by the spectrophotometric molybdovanadophosphate method (AOAC Method 9) published in the Official Methods of Analysis of the Association of Official Analytical Chemists, 11 Edition, 1970, pp. 11-12, or another method approved by the APCO.
- 5.2.3 Install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the process scrubbing system. The monitoring device shall have an accuracy of  $\pm$  five (5) percent over its operating range.

## 5.3 Testing Procedures

Emissions from subject plants shall be tested according to method 13A or 13B specified in 40 CFR 60.