Environmental Protection Agency

Subpart T—Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants

§ 60.200 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each wet-process phosphoric acid plant having a design capacity of more than 15 tons of equivalent P₂O₅ feed per calendar day. For the purpose of this subpart, the affected facility includes any combination of: reactors, filters, evaporators, and hot wells.

(b) Any facility under paragraph (a) of this section that commences construction or modification after October 22, 1974, is subject to the requirements of this subpart.


§ 60.201 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Wet-process phosphoric acid plant means any facility manufacturing phosphoric acid by reacting phosphate rock and acid.

(b) Total fluorides means elemental fluorine and all fluoride compounds as measured by reference methods specified in § 60.204, or equivalent or alternative methods.

(c) Equivalent P₂O₅ feed means the quantity of phosphorus, expressed as phosphorus pentoxide, fed to the process.


§ 60.202 Standard for fluorides.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain total fluorides in excess of 10.0 g/Mg of equivalent P₂O₅ feed (0.020 lb/ton).

[40 FR 33154, Aug. 6, 1975, as amended at 65 FR 61757, Oct. 17, 2000]

§ 60.203 Monitoring of operations.

(a) The owner or operator of any wet-process phosphoric acid plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a 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 ±5 percent over its operating range.

(b) The owner or operator of any wet-process phosphoric acid plant shall maintain a daily record of equivalent P₂O₅ feed by first determining the total mass rate in Mg/hr of phosphorus-bearing feed using a monitoring device for measuring mass flowrate which meets the requirements of paragraph (a) of this section and then by proceeding according to § 60.204(b)(3).

(c) The owner or operator of any wet-process phosphoric acid subject to the provisions of this part shall 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 ±5 percent over its operating range.


§ 60.204 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the total fluorides standard in § 60.202 as follows:

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

\[ E = \left( \sum_{i=1}^{N} C_{i} \right) / (PK) \]

where:

- \( C_{i} \) is the concentration of total fluorides in the gas stream i,
- N is the number of gas streams,
- P is the mass flow rate of the gas stream,
- K is a constant determined by the reference method.

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