



## Subpart AA-National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants

### § 63.600 Applicability.

(a) Except as provided in paragraphs (c), (d), and (e) of this section, the requirements of this subpart apply to the owner or operator of each phosphoric acid manufacturing plant.

(b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAPs) emitted from the following new or existing affected sources at a phosphoric acid manufacturing plant:

(1) Each wet-process phosphoric acid process line. The requirements of this subpart apply to the following emission points which are components of a wet-process phosphoric acid process line: reactors, filters, evaporators, and hot wells;

(2) Each evaporative cooling tower at a phosphoric acid manufacturing plant;

(3) Each phosphate rock dryer located at a phosphoric acid manufacturing plant;

(4) Each phosphate rock calciner located at a phosphoric acid manufacturing plant;

(5) Each superphosphoric acid process line. The requirements of this subpart apply to the following emission points which are components of a superphosphoric acid process line: evaporators, hot wells, acid sumps, and cooling tanks; and

(6) Each purified acid process line. The requirements of this subpart apply to the following emission points which are components of a purified phosphoric acid process line: solvent extraction process equipment, solvent stripping and recovery equipment, seal tanks, carbon treatment equipment, cooling towers, storage tanks, pumps and process piping.

(c) The requirements of this subpart do not apply to the owner or operator of a new or existing phosphoric acid manufacturing plant that is not a major source as defined in § 63.2.

(d) The provisions of this subpart do not apply to research and development facilities as defined in § 63.601.

(e) The emission limitations and operating parameter requirements of this subpart do not apply during periods of startup, shutdown, or malfunction, as those terms are defined in § 63.2, provided that the source is operated in accordance with § 63.6(e)(1)(i) and the Startup, Shutdown, and Malfunction Plan submitted pursuant to § 63.6(e)(3).

[57 FR 61992, Dec. 29, 1992, as amended at 67 FR 65076, Dec. 17, 2001]

### § 63.601 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, or in this section as follows:

*Equivalent P<sub>2</sub>O<sub>5</sub> feed* means the quantity of phosphorus, expressed as phosphorous pentoxide, fed to the process.

*Evaporative cooling tower* means an open water recirculating device that uses fans or natural draft to draw

or force ambient air through the device to remove heat from process water by direct contact.

*Exceedance* means a departure from an indicator range established under this subpart, consistent with any averaging period specified for averaging the results of the monitoring.

*HAP metals* mean those metals and their compounds (in particulate or volatile form) that are included on the list of hazardous air pollutants in section 112 of the Clean Air Act. HAP metals include, but are not limited to: antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium expressed as particulate matter as measured by the methods and procedures in this subpart or an approved alternative method. For the purposes of this subpart, HAP metals are expressed as particulate matter as measured by 40 CFR part 60, appendix A, Method 5.

*Phosphate rock calciner* means the equipment used to remove moisture and organic matter from phosphate rock through direct or indirect heating.

*Phosphate rock dryer* means the equipment used to reduce the moisture content of phosphate rock through direct or indirect heating.

*Phosphate rock feed* means all material entering any phosphate rock dryer or phosphate rock calciner including moisture and extraneous material as well as the following ore materials: fluorapatite, hydroxylapatite, chlorapatite, and carbonateapatite.

*Purified phosphoric acid process line* means any process line which uses a HAP as a solvent in the separation of impurities from the product acid for the purposes of rendering that product suitable for industrial, manufacturing or food grade uses.

*Research and development facility* means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other off-site distribution, except in a de minimis manner.

*Superphosphoric acid process line* means any process line which concentrates wet-process phosphoric acid to 66 percent or greater P<sub>2</sub>O<sub>5</sub> content by weight.

*Total fluorides* means elemental fluorine and all fluoride compounds, including the HAP hydrogen fluoride, as measured by reference methods specified in 40 CFR part 60, appendix A, Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to § 63.7(f).

*Wet process phosphoric acid process line* means any process line manufacturing phosphoric acid by reacting phosphate rock and acid.

### § 63.602 Standards for existing sources.

(a) *Wet process phosphoric acid process line.* On and after the date on which the performance test required to be conducted by § 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall

cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 10.0 gram/metric ton of equivalent P<sub>2</sub>O<sub>5</sub> feed (0.020 lb/ton).

(b) *Superphosphoric acid process line.*

(1) *Vacuum evaporation process.* On and after the date on which the performance test required to be conducted by § 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 5.0 gram/metric ton of equivalent P<sub>2</sub>O<sub>5</sub> feed (0.010 lb/ton).

(2) *Submerged combustion process.* On and after the date on which the performance test required to be conducted by § 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 100.0 gram/metric ton of equivalent P<sub>2</sub>O<sub>5</sub> feed (0.20 lb/ton).

(c) *Phosphate rock dryer.* On or after the date on which the performance test required to be conducted by § 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.10750 kilogram/metric ton of phosphate rock feed (0.2150 lb/ton).

(d) *Phosphate rock calciner.* On or after the date on which the performance test required to be conducted by § 63.7 and 63.606 is required to be completed, no owner or operator

subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.1810 gram per dry standard cubic meter (g/dscm) (0.080 grains per dry standard cubic foot (gr/dscf)).

(e) *Evaporative cooling tower.* No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to this paragraph (e) must certify to the Administrator annually that he/she has complied with the requirements contained in this section.

(f) *Purified phosphoric acid process line.* (1) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of subpart H of this part.

(2) For any existing purified phosphoric acid process line, any of the following shall constitute a violation of this subpart:

(i) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of twenty parts per million for each product acid stream.

(ii) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of thirty parts per million for each raffinate stream.

(iii) A daily average chiller stack exit gas stream temperature in excess of fifty degrees Fahrenheit.

[57 FR 61992, Dec. 29, 1992, as amended at 67 FR 40579, June 12, 2002; 67 FR 40817, June 13, 2002]