

system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of § 63.605(d)(1) or (2).

[67 FR 40818, June 13, 2002]

§ 63.605 Monitoring requirements.

(a)(1) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ± 5 percent over its operating range.

(2) Each owner or operator of a new or existing phosphate rock dryer or phosphate rock calciner subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record either the mass flow of phosphorus-bearing feed material to the dryer or calciner, or the mass flow of product from the dryer or calciner. The monitoring system shall have an accuracy of ± 5 percent over its operating range. Since the emissions limits under §§ 63.602(c) and 63.603(c) for the phosphate rock dryer are in the format of kilogram/megagram (lb/ton) of phosphate rock feed, during performance testing required in § 63.606, the owner or operator that chooses to operate a monitoring system to determine and permanently record the mass flow of product from the dryer must either simultaneously monitor the dryer feed rate and dryer output rate, or monitor the dryer output rate and the dryer input and output moisture contents and calculate the corresponding dryer input rate.

(b)(1) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line subject to the provisions of this subpart shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing

feed using a monitoring system for measuring mass flowrate which meets the requirements of paragraph (a) of this section and then by proceeding according to § 63.606(c)(3).

(2) Each owner or operator of a new or existing phosphate rock calciner or phosphate rock dryer subject to the provisions of this subpart shall maintain a daily record of the following:

(i) For owners and operators that monitor the mass flow of phosphorus-bearing feed material to the dryer or calciner, a daily record of phosphate rock feed by determining the total mass rate in metric ton/hour of phosphorus-bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of paragraph (a)(2) of this section.

(ii) For owners and operators that monitor the mass flow of product from the dryer or calciner, a daily record of product by determining the total mass rate in metric ton/hour of product using a monitoring system for measuring mass flowrate which meets the requirements of paragraph (a)(2) of this section.

(c) Each owner or operator of a new or existing wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer or phosphate rock calciner using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:

(1) A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range.

(2) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range.

(d) Following the date on which the performance test required in § 63.606 is completed, the owner or operator of a new or existing affected source using a

wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (d)(1) or (2) of this section:

(1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is ± 20 percent of the baseline average value determined as a requirement of § 63.606(c)(4), (d)(4), or (e)(2). The Administrator retains the right to reduce the ± 20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but, in no instance shall the adjustment be reduced to less than ± 10 percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to §§ 63.607(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in § 63.606(c)(4), (d)(4), or (e)(2). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in § 63.606(c)(4), (d)(4), or (e)(2). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

(e) Each owner or operator of a new or existing purified phosphoric acid process line shall:

(1) Install, calibrate, maintain, and operate a monitoring system which continuously measures and permanently records the stack gas exit temperature for each chiller stack.

(2) Measure and record the concentration of methyl isobutyl ketone in each

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product acid stream and each raffinate stream once daily.

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§ 63.606 Performance tests and compliance provisions.

(a)(1) On or before the applicable compliance date in § 63.609 and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.

(2) As required by § 63.7(a)(2) and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the applicable emission standard for each new wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.

(b) In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).

(c) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line shall determine compliance with the applicable total fluorides standards in § 63.602 or § 63.603 as follows:

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

$$E = \left(\sum_{i=1}^N C_{si} Q_{sdi} \right) / (PK)$$

Where:

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E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P₂O₅ feed.

C_{si} = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).

Q_{sdi} = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).

N = number of emission points associated with the affected facility.

P = equivalent P₂O₅ feed rate, metric ton/hr (ton/hr).

K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (C_{si}) and volumetric flow rate (Q_{sdi}) of the effluent gas from each of the emission points. If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4. in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The equivalent P₂O₅ feed rate (P) shall be computed using the following equation:

$$P = M_p R_p$$

Where:

M_p = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).

R_p = P₂O₅ content, decimal fraction.

(i) The accountability system described in § 63.605(a) and (b) shall be used to determine the mass flow rate (M_p) of the phosphorus-bearing feed.

(ii) The P₂O₅ content (R_p) of the feed shall be determined using as appropriate the following methods (incorporated by reference—see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:

(A) Section IX, Methods of Analysis For Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A-Volumetric Method.

(C) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B-Gravimetric Quimociac Method.