

## Environmental Protection Agency

## § 60.74

(2) Exhibit 10 percent opacity, or greater.

[39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975]

### § 60.73 Emission monitoring.

(a) The source owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides (NO<sub>x</sub>). The pollutant gas mixtures under Performance Specification 2 and for calibration checks under § 60.13(d) of this part shall be nitrogen dioxide (NO<sub>2</sub>). The span value shall be 500 ppm of NO<sub>2</sub>. Method 7 shall be used for the performance evaluations under § 60.13(c). Acceptable alternative methods to Method 7 are given in § 60.74(c).

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be established by measuring emissions with the continuous monitoring system concurrent with measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference method test periods, the conversion factor shall be determined by dividing the reference method test data averages by the monitoring data averages to obtain a ratio expressed in units of the applicable standard to units of the monitoring data, i.e., kg/metric ton per ppm (lb/ton per ppm). The conversion factor shall be reestablished during any performance test under § 60.8 or any continuous monitoring system performance evaluation under § 60.13(c).

(c) The owner or operator shall record the daily production rate and hours of operation.

(d) [Reserved]

(e) For the purpose of reports required under § 60.7(c), periods of excess emissions that shall be reported are defined as any 3-hour period during which the average nitrogen oxides emissions (arithmetic average of three contiguous 1-hour periods) as measured by a

continuous monitoring system exceed the standard under § 60.72(a).

[39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975; 50 FR 15894, Apr. 22, 1985; 54 FR 6666, Feb. 14, 1989]

### § 60.74 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). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the NO<sub>x</sub> standard in § 60.72 as follows:

(1) The emission rate (E) of NO<sub>x</sub> shall be computed for each run using the following equation:

$$E = (C_s Q_{sd}) / (P K)$$

where:

E = emission rate of NO<sub>x</sub> as NO<sub>2</sub>, kg/metric ton (lb/ton) of 100 percent nitric acid.

C<sub>s</sub> = concentration of NO<sub>x</sub> as NO<sub>2</sub>, g/dscm (lb/dscf).

Q<sub>sd</sub> = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P = acid production rate, metric ton/hr (ton/hr) or 100 percent nitric acid.

K = conversion factor, 1000 g/kg (1.0 lb/lb).

(2) Method 7 shall be used to determine the NO<sub>x</sub> concentration of each grab sample. Method 1 shall be used to select the sampling site, and the sampling point shall be the centroid of the stack or duct or at a point no closer to the walls than 1 m (3.28 ft). Four grab samples shall be taken at approximately 15-minute intervals. The arithmetic mean of the four sample concentrations shall constitute the run value (C<sub>s</sub>).

(3) Method 2 shall be used to determine the volumetric flow rate (Q<sub>sd</sub>) of the effluent gas. The measurement site shall be the same as for the NO<sub>x</sub> sample. A velocity traverse shall be made once per run within the hour that the NO<sub>x</sub> samples are taken.

(4) The methods of § 60.73(c) shall be used to determine the production rate (P) of 100 percent nitric acid for each

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run. Material balance over the production system shall be used to confirm the production rate.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For Method 7, Method 7A, 7B, 7C, or 7D may be used. If Method 7C or 7D is used, the sampling time shall be at least 1 hour.

(d) The owner or operator shall use the procedure in §60.73(b) to determine the conversion factor for converting the monitoring data to the units of the standard.

[54 FR 6666, Feb. 14, 1989]

**Subpart H—Standards of Performance for Sulfuric Acid Plants**

**§ 60.80 Applicability and designation of affected facility.**

(a) The provisions of this subpart are applicable to each sulfuric acid production unit, which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

**§ 60.81 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) *Sulfuric acid production unit* means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(b) *Acid mist* means sulfuric acid mist, as measured by Method 8 of appendix A to this part or an equivalent or alternative method.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 20794, June 14, 1974]

**40 CFR Ch. I (7–1–07 Edition)**

**§ 60.82 Standard for sulfur dioxide.**

(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 sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H<sub>2</sub>SO<sub>4</sub>.

[39 FR 20794, June 14, 1974]

**§ 60.83 Standard for acid mist.**

(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:

(1) Contain acid mist, expressed as H<sub>2</sub>SO<sub>4</sub>, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton), the production being expressed as 100 percent H<sub>2</sub>SO<sub>4</sub>.

(2) Exhibit 10 percent opacity, or greater.

[39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975]

**§ 60.84 Emission monitoring.**

(a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under §60.13(d), shall be sulfur dioxide (SO<sub>2</sub>). Method 8 shall be used for conducting monitoring system performance evaluations under §60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide.

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the