

Title 33
ENVIRONMENTAL QUALITY

Part III. Air

Chapter 15. Emission Standards for Sulfur Dioxide

§1502. Applicability

A. The provisions of this Chapter are applicable to the following sources:

1. new or existing sulfuric acid production units;
2. new or existing sulfur recovery plants; and
3. all other single point sources that emit or have the potential to emit 5 tons per year or more of sulfur dioxide into the atmosphere.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs Division, LR 33:** (June 2007).

§1503. Emission Limitations and Compliance

~~As used in this Section a *three-hour average* means the average emissions for any three consecutive one-hour periods (each commencing on the hour), provided that the number of three-hour periods during which the SO₂ limitation is exceeded is not greater than the number of one-hour periods during which the SO₂ limitation is exceeded.~~

A. Sulfuric Acid Plants—New and Existing. The emissions of sulfur dioxide and acid mist from new sulfuric acid production units that commence construction or modification after August 17, 1971, shall be limited to that specified in 40 CFR 60.82 and 60.83, as incorporated by reference in LAC 33:III.Chapter 30, i.e., 4.0 pounds of SO₂/ton of 100 percent H₂SO₄ (2 kilograms/metric ton) and 0.15 pounds of sulfuric acid mist/ton of 100 percent H₂SO₄ (.075 kilograms/metric ton), respectively (three-hour averages). Emissions from existing units shall be limited as follows:

1. SO₂—not more than 2000 ppm by volume (three-hour average);
2. sulfuric acid mist—not more than 0.5 pounds/ton of 100 percent H₂SO₄ (0.25 kilograms/metric ton) (three-hour average).

B. ...

C. All Other Sources—New and Existing ~~Not Elsewhere Discussed~~. No person shall discharge gases from the subject sources ~~which that~~ contain concentrations of SO₂ ~~which exceed~~ in excess of 2,000 parts per million (ppm) by volume at standard conditions (three-hour average), or any applicable Federal NSPS or NESHAP emission limitation, whichever is more stringent. ~~Units emitting~~ Single point sources that emit or have the potential to emit less than 250 tons per year of sulfur compounds measured as sulfur dioxide may be exempted from the 2,000 ppm(v) limitation by the administrative authority.

D. ~~Measurement of Concentrations~~ Compliance

1. ~~Analytical Methods~~. The methods listed in Table 4 or any such equivalent method as may be approved by the administrative authority* shall be ~~utilized~~ used to determine ~~sulfur dioxide and sulfuric acid mist concentrations in stack gases~~ compliance with the appropriate emission limitations set forth in Subsections A-C of this Section. These methods ~~are~~ shall be used for the following:

a. initial compliance determinations; and
 b. for any additional compliance determinations as requested by the administrative authority, for those facilities not subject to continuous emission monitoring.

2. ~~Calibration of Equipment Required.~~ Measurement equipment shall be periodically calibrated to comply with minimal American Bureau of Standards ~~C~~ criteria.

3. The data collected from a sulfur dioxide continuous emission monitoring system (CEMS) may be used to determine initial compliance with the sulfur dioxide emission limitations of this Section.

4. As used in this Section a three-hour average means the average emissions for any three consecutive one-hour periods (each commencing on the hour), provided that the number of three-hour periods during which the SO₂ limitation is exceeded is not greater than the number of one-hour periods during which the SO₂ limitation is exceeded.

Table 4 Emissions—Methods of Contaminant Measurement	
Emission	Analytical Method
Particulate	1. Methods 1, 2, 3, 4, 5 (40 CFR Part 60, Appendix A, as incorporated by reference at LAC 33:III.3003) or §60.8 of 40 CFR Part 60 as incorporated by reference at LAC 33:III.3003.
Sulfur Oxides	1. Seidman, Analytical Chemistry Volume 30, page 1680 (1958), "Determination of Sulfur Oxides in Stack Gases." 2. Shell Development Company method for the Determination of Sulfur Dioxide and Sulfur Trioxide PHS 999 AP-13 Appendix B, pages 85-87, "Atmospheric Emissions Sulfuric Acid Manufacturing Processes." 3. Reich Test for Sulfur Dioxide, "Atmospheric Emissions from Sulfuric Acid Manufacturing Process" PHS 999 AP-13 Appendix B, pages 76-80. 4. The Modified Monsanto Company Method, "Atmospheric Emissions from Sulfuric Acid Manufacturing Process" PHS 999 AP-13, Appendix B, pages 61-67. 5. Test Methods 1, 2, 3, 4, 6C, and 8 (40 CFR Part 60, Appendix A, as incorporated by reference at LAC 33:III.3003), or §60.8 of 40 CFR Part 60 as incorporated by reference at LAC 33:III.3003.
Oxides of Nitrogen	1. Test Methods 1, 2, 3, 4, and 7E (40 CFR Part 60, Appendix A, as incorporated by reference at LAC 33:III.3003), or §60.8 of 40 CFR Part 60 as incorporated by reference at LAC 33:III.3003.
Visible Emissions	1. Method 9 (40 CFR Part 60, Appendix A, as incorporated by reference at LAC 33:III.3003). 2. Method 22 (40 CFR Part 60, Appendix A, as incorporated by reference at LAC 33:III.3003).
Total Fluoride	1. Methods 1, 2, 3, 13A and 13B (40 CFR Part 60, Appendix A, as incorporated by reference at LAC 33:III.3003).
Total Reduced Sulfur (TRS)	1. Method 16 (40 CFR Part 60, Appendix A or §60.8 of 40 CFR Part 60 as incorporated by reference at LAC 33:III.3003). 2. Coulometric titration by method specified in NCASI Atmospheric Quality Improvement Technical Bulletin Number 91—(January 1978).
Sulfuric Acid Mist	1. Test methods 1, 2, 3, 4, 6, and 8 (40 CFR Part 60, Appendix A or §60.8 of 40 CFR Part 60 as incorporated by reference at LAC 33:III.3003).

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§1507. Exceptions

A. Start-Up Provisions

1. A four-hour (continuous) start-up exemption from the emission limitations of LAC 33:III.1503.A ~~may~~ will be authorized by the administrative authority for ~~plants~~ facilities not subject to 40 CFR 60.82 and 60.83, as incorporated by reference in LAC 33:III.Chapter 30, that have been shut down.

a. A written report ~~in writing~~ explaining the conditions and duration of the start-up and listing the steps necessary to remedy, prevent, and limit the excess emissions shall be submitted to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), within seven calendar days of the occurrence.

b. The report shall be signed by a responsible official, who shall certify:

i. that the excess emissions were not the result of failure to operate, maintain, or repair equipment in a manner consistent with good engineering practice;

ii. that the excess emissions were not due to error resulting from careless operations;

iii. that the excess emissions were not the result of failure to follow written procedures;

iv. that actions were taken to minimize the duration and magnitude of the excess emissions; and

v. that no ambient air quality standard was jeopardized.

c. All necessary data required to support the certifying statements shall be recorded and retained on-site and made available to department personnel upon request.

2. ...

B. On-Line Operating Adjustments

1. A four-hour (continuous) exemption from emission limitations of LAC 33:III.1503.A ~~may~~ will be extended by the administrative authority to ~~plants~~ facilities not subject to 40 CFR 60.82 and 60.83, as incorporated by reference in LAC 33:III.Chapter 30, where upsets have caused excessive emissions and on-line operating changes will eliminate a temporary condition.

a. A written report ~~in writing~~ explaining the conditions and duration of the upset and listing the steps necessary to remedy, prevent, and limit the excess emissions shall be submitted to the Office of Environmental Compliance, Emergency and Radiological Services Division, SPOC, within seven calendar days of the occurrence.

b. The report shall be signed by a responsible official, who shall certify:

i. that the excess emissions were not the result of failure to operate, maintain, or repair equipment in a manner consistent with good engineering practice;

- ii. that the excess emissions were not due to error resulting from careless operations;
- iii. that the excess emissions were not the result of failure to follow written procedures;
- iv. that actions were taken to minimize the duration and magnitude of the excess emissions; and
- v. that no ambient air quality standard was jeopardized.
- c. All necessary data required to support the certifying statements shall be recorded and retained on-site and made available to department personnel upon request.

2. ...

C. Bubble Concept. The administrative authority* may exempt a source from the emission limitations of LAC 33:III.1503 if the owner or operator demonstrates that a *bubble concept* will be applied as defined in LAC 33:III.111.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Nuclear Energy, Air Quality Division, LR 13:741 (December 1987), amended by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 18:375 (April 1992), LR 23:1678 (December 1997), LR 24:1284 (July 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2451 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2439 (October 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 33:** (June 2007).

§1511. Continuous Emissions Monitoring

A. Except as provided in Subsections C and D of this Section, tThe owner or operator of any facility subject to the ~~provisions~~ sulfur dioxide emission limitations of this Chapter shall install, calibrate, maintain, and operate a measurement system or systems, installed in accordance with the manufacturers instructions, for continuously monitoring sulfur dioxide concentrations in the effluent of each process subject to this Chapter ~~consistent with LAC 33:III.915. The administrative authority shall not require continuous monitoring for flares and sources emitting less than 100 tons per year of sulfur dioxide into the atmosphere or as identified in 40 CFR, Part 51, Appendix P.~~ *Continuous monitoring* is defined as sampling and recording of at least one measurement of ~~sulfur dioxide concentration~~ in each 15-minute period from the effluent of each affected process or the emission control system serving each affected process.

B. ...

C. As an alternative to continuous monitoring of sulfur dioxide emissions the administrative authority* may approve demonstration of compliance as follows:

1. For combustion units that burn fuel gas or refinery gas, calculate sulfur dioxide emissions by continuously monitoring the fuel hydrogen sulfide content and fuel consumption rate and calculation of sulfur dioxide emissions for sources which burn fuel gas or refinery gas in multiple combustion units; or,

2. For any single point source that burns or decomposes sulfur-containing fuel and/or feedstock, calculate sulfur dioxide emissions by monitoring the fuel and/or feedstock consumption rate and determining input sulfur as follows:

a. For fuel supplied from a bulk storage tank, values for input sulfur shall be determined on each occasion that the fuel is transferred to the storage tank from any other source. Fuel consumption rates shall be monitored continuously.

b. For feedstock or any other method of supplying fuel, values for input sulfur shall be determined daily. Fuel consumption rates shall be monitored continuously.

3. As an alternative to Paragraphs C.1 and 2 of this Section, the owner or operator may develop custom schedules and methods for determination of sulfur dioxide emissions these parameters based on the design and operation of the emissions unit source and characteristics of the feedstock or fuel supply. These custom schedules must shall be substantiated by data and must be approved by the administrative authority prior to implementation. and calculation of sulfur dioxide emissions for sources which burn or decompose sulfur containing fuel and/or feedstock.

D. The administrative authority shall not require continuous monitoring for:

1. flares;

2. emissions unitssingle point sources that have the potential to emit less than 100 tpy of sulfur dioxide;

3. emissions unitssingle point sources identified in 40 CFR Part 51, Appendix P; and

4. emissions unitssingle point sources subject to the provisions of 40 CFR Part 75-Continuous Emission Monitoring.

E. For sulfuric acid plants, the production rate of H₂SO₄ shall be monitored daily.

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HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 18:375 (April 1992), amended LR 22:1212 (December 1996), amended by the Office of the Secretary, Legal Affairs Division, LR 33:** (June 2007).

§1513. Recordkeeping and Reporting

A. Except as provided in Subsections B-D of this Section, the owner or operator of any facility subject to the provisions of this Chapter shall record and retain at the site for at least two years the data required to demonstrate compliance with or exemption from these provisions this Chapter. All emissions data shall be recorded in the units of the applicable standard using the averaging time of the applicable standard, as follows.

1. CEMS data shall be recorded continuously.

2. Initial and additional compliance determination data shall be recorded upon each occurrence. A report showing the results of any such test shall be submitted no later than 90 days after the completion of the test.

3. For sulfuric acid plants, the production rate of H₂SO₄ shall be recorded daily.

B. The owner or operator of any single point source approved for alternative emissions monitoring in accordance with LAC 33:III.1511.C shall record the appropriate data required to demonstrate compliance as follows.

1. Fuel H₂S content shall be recorded continuously. For sources that burn fuel gas or refinery gas in multiple combustion units, maintain continuous records of the fuel hydrogen sulfide content and the fuel consumption rate.

2. Input sulfur shall be recorded upon each determination. For emissions units

that burn or decompose sulfur-containing fuel and/or feedstock, maintain continuous records of the fuel and/or feedstock consumption rate and a record of the input sulfur at the following frequencies.

a. For fuel supplied from a bulk storage tank, values for input sulfur shall be recorded on each occasion that the fuel is transferred to the storage tank from any other source.

b. For feedstock or any other method of supplying fuel, values for input sulfur shall be recorded daily.

~~3. Fuel and/or feedstock consumption rate shall be recorded continuously or as approved by the administrative authority in accordance with LAC 33:III.1511.C.2.b. For an emissions unit with an approved custom schedule, the fuel and/or feedstock consumption rate and input sulfur shall be recorded according to the custom schedule approved by the administrative authority in accordance with LAC 33:III.1511.C.3.~~

~~4. SO₂ emissions shall be calculated and recorded continuously in the units of the applicable standard using the averaging time of the applicable standard.~~

C. The owner or operator of any emissions unit that is not subject to the emissions limitations of this Chapter shall record and retain at the site sufficient data to show annual potential sulfur dioxide emissions from the emissions unit.

D. Compliance with the recordkeeping requirements of 40 CFR Part 75–Continuous Emission Monitoring shall satisfy the recordkeeping provisions of this Section.

E. All compliance ~~These~~ data shall be made available to a representative of the department or the U.S. EPA on request. ~~When applicable, c~~Compliance data shall be reported to the department annually in accordance with LAC 33:III.918. In addition, quarterly reports of three-hour excess emissions and reports of emergency conditions in accordance with LAC 33:I.Chapter 39 shall be made.

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