10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

(1) Applicability.

(A) This rule applies to any installation that is an emission source of sulfur compounds, except—

1. Emission sources subject to an applicable sulfur compound emission limit under 10 CSR 10-6.070; or

2. Combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2. or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM), or any combination of these fuels.

(B) Subsection (3)(A) of this rule shall apply to all sulfur compound emissions except—

1. Indirect heating sources; or

2. Existing lead smelting and/or refining sources.

(C) Subsection (3)(B) of this rule restricts sulfur dioxide emissions from indirect heating sources greater than three hundred fifty thousand British thermal units (350,000 Btus) per hour actual heat input.

(D) Subsection (3)(C) of this rule shall apply to sulfur compound emissions from existing lead smelting and/or refining sources or related activities.

(2) Definitions. Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020.

(3) General Provisions.

*(A) Restriction of Concentration of Sulfur Compounds in Emissions.

1. Existing sources. No person shall cause or permit the emission into the atmosphere gases containing more than two thousand parts per million by volume (2,000 ppmv) of sulfur dioxide or more than seventy milligrams per cubic meter (70 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period.

2. New sources. No person shall cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period.

3. Compliance with subsection (3)(A) of this rule shall be determined by source testing as specified in subsection (5)(A) of this rule.

4. Other methods approved by the staff director in advance may be used.

***Note: Section (3) (A)(1-4) above are only approved pursuant to 111(d) only.**

(B) Restriction of Emission of Sulfur Dioxide from Indirect Heating Sources.

1. Subsection (3)(B) of this rule applies to installations in which fuel is burned for the primary purpose of producing steam, hot water, or hot air or other indirect heating of liquids, gases, or solids and in the course of doing so the products of combustion do not come into direct contact with process materials. When any products or by-products of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission limitations shall apply.

2. Indirect heating sources located in Missouri, other than in Franklin, Jefferson, St. Louis, St. Charles Counties, or City of St. Louis.

A. No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds (8 lbs.) of sulfur dioxide per million Btus actual heat input averaged on any consecutive three (3)-hour time period unless that source is listed in Table I or subject to a provision of 10 CSR 10-6.070 New Source Performance Regulations with an applicable sulfur compound emission limit.

B. The following existing indirect heating sources listed in Table I shall limit their average sulfur emissions into the atmosphere to the allowable amount of sulfur dioxide per million Btus of actual heat input averaged on any consecutive three (3)-hour basis.

Table I

Facility	Averaging Time	Emission Rate per Unit (Pounds Sulfur Dioxide Per Million Btus)
Associated Electric Cooperative-New Madrid	3 hours	10.0
Associated Electric Cooperative-Thomas Hill	3 hours	8.0
Central Electric Power Cooperative-Chamois	3 hours	6.7
City Utilities—James River Plant*	24 hours	(Units 1–4) 1.5 (Unit 5) 2.0
Empire District Electric Company—Asbury Station	3 hours	12.0
Independence Power and Light—Blue Valley Station	3 hours	6.3
Trigen—Grand Ave. Plant	3 hours	7.1
Kansas City Power & Light—Hawthorn Plant**	30 day rolling	0.12
Kansas City Power & Light—Montrose Station	24 hours	3.9
Aquila—Sibley Plant	3 hours	9.0
Aquila—Lake Road Plant*	24 hours	(Boilers 1, 2, and 4) 0.0524 (Boiler 3) 0.0006 (Boiler 5) 1.3490 (Boiler 6)*** (Combustion Turbines 5, 6, and 7) 0.0511
University of Missouri—Columbia	3 hours	8.0

* Facility is subject to State Enforceable Agreement.
** Kansas City Power & Light—The SO_2 emission rate comes from the Prevention of Significant Deterioration permit for Unit 5A and is implemented in accordance with the terms of the permit.
*** Boiler 6 at the Lake Road Plant is limited to a 24-hour daily block average of 1,400 pounds of SO_2/hour.

C. Compliance with paragraph (3)(B)2. of this rule shall be determined by source testing as specified in subsection (5)(B) of this rule.

D. Other methods approved by the staff director in advance may be used.

E. Owners or operators of sources and installations subject to paragraph (3)(B)2. of this rule shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

3. Indirect heating sources located in Franklin, Jefferson, St. Louis, St. Charles Counties, or City of St. Louis.

A. Restrictions applicable to installations with a capacity of two thousand (2,000) million or more Btus per hour.

(I) No person shall cause or permit the emission of sulfur dioxide to the atmosphere from any installation with a capacity of two thousand (2,000) million or more Btus per hour in an amount greater than two and three-tenths pounds (2.3 lbs.) of sulfur dioxide per million Btus of actual heat input averaged on any consecutive three (3)-hour time period unless that source is listed in part (3)(B)3.A.(II) of this rule or is subject to a provision of 10 CSR 10-6.070 New Source Performance Regulations with an applicable sulfur compound emission limit.

(II) The following existing installations shall limit their sulfur dioxide emissions into the atmosphere from the combustion of any fuels to the allowable amount of sulfur dioxide per million Btus of actual heat input listed:

Facility	**Emission Rate per Unit* (Pounds Sulfur Dioxide Per Million Btus)**
Ameren UE—Labadie Plant	4.8
Ameren UE— Portage des Sioux Plant	4.8

***Daily average, 00:01 to 24:00**

(III) Owners or operators of sources and installations subject to paragraph (3)(B)3. of this rule shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

(IV) Each source subject to limitations under subparagraph (3)(B)3.A. of this rule may emit sulfur dioxide at a rate not to exceed the allowable emission rate by more than twenty percent (20%) for not more than three (3) days in any one (1) month.

(V) Compliance with part (3)(B)3.A.(II) of this rule shall be demonstrated by sulfur dioxide and either carbon dioxide or oxygen continuous monitoring devices. The devices shall be certified by the owner or operator to be installed and operational in accordance with Performance Specifications 2 and 3, 40 CFR part 60, Appendix B. The devices shall also be operated and maintained in accordance with the procedures and standards set out at 40 CFR 60.13(d) and (e)(2).

(VI) Reports shall be as specified in section (4) of this rule.

B. Restrictions applicable to installations with a capacity of less than two thousand (2,000) million Btus per hour.

(I) During the months of October, November, December, January, February, and March of every year, no person shall burn or permit the burning of any coal containing more than two percent (2%) sulfur or of any fuel oil containing more than two percent (2%) sulfur in any installation having a capacity of less than two thousand (2,000) million Btus per hour. Otherwise, no person shall burn or permit the burning of any coal or fuel oil containing more than four percent (4%) sulfur in any installation having a capacity of less than two thousand (2,000) million Btus per hour.

(II) Part (3)(B)3.B.(I) of this rule shall not apply to any installation if it can be shown that emissions of sulfur dioxide from the installation into the atmosphere will not exceed two and three-tenths (2.3) pounds per million Btus of heat input to the installation.

(III) Owners or operators of sources and installations subject to this section shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

C. Compliance with paragraph (3)(B)3. of this rule shall be determined by source testing as specified in subsection (5)(B) of this rule.

D. Other methods approved by the staff director in advance may be used.

(C) Emission of Sulfur Dioxide from Existing Lead Smelters and Refineries.

1. Each of the following existing installations listed in Table II engaged in smelting and/or refining lead shall limit its sulfur dioxide emissions from the sources or stacks, as described, to the amount of sulfur dioxide set forth here.

Table II		
Facility	**Averaging Time**	**Emission Limitation (Pounds SO_2/Hr)**
Doe Run Company, Lead Smelter and Refinery - Glover, Missouri Two stacks:		
Sinter machine off-gas stack	1 hour test repeated 3 times	20,000 pounds SO_2/hr
Blast furnace baghouse stack		1,056 pounds SO_2/hr
Doe Run Company, Buick Smelter – Boss, Missouri	1 hour test repeated 3 times	8,650 pounds SO_2/hr
Doe Run Company, Herculaneum Smelter - Herculaneum, Missouri	Year end Annual for 2012	25,100 tons SO_2/year
	Year end Annual for 2014	16,350 tons SO_2/year
	Year end Annual for 2017	0 tons SO_2/year

2. Compliance with paragraph (3)(C)1. of this rule shall be determined by source testing as specified in subsection (5)(B) of this rule except that the source testing shall consist of averaging three (3) separate one (1)-hour tests using the applicable testing method. The Doe Run Company, Herculaneum Smelter, shall determine compliance using a continuous emission monitoring system.

3. Secondary lead smelting installations shall install, calibrate, maintain, and operate an SO_2 continuous emission monitoring system, for the purpose of demonstrating compliance status, relative to subsection (3)(A) of this rule.

A. Certification.

(I) The continuous emission monitoring systems shall be certified by the owner or operator in accordance with 40 CFR part 60 Appendix B, Performance Specification 2 and Section 60.13 as is pertinent to SO_2 continuous monitors as adopted by reference in 10 CSR 10-6.070.

(II) The span of the SO_2 continuous monitor shall be set at an SO_2 concentration of one-fifth percent (0.20%) by volume.

(III) For the purpose of the SO_2 continuous monitor performance evaluation, the reference method referred to under the Field Test for Accuracy in Performance Specification 2 shall be Reference Method 6, 10 CSR 10-6.030(6). For this method, the minimum sampling time is twenty (20) minutes and the minimum volume is 0.02 dry standard cubic meter (dscm) for each sample. Samples are taken at sixty (60)-minute intervals and each sample represents a one (1)-hour average.

B. Reports shall be as specified in section (4) of this rule.

4. Owners or operators of sources and installations subject to this section shall furnish the director such data as s/he may reasonably require to determine whether compliance is being met.

(4) Reporting and Record Keeping.

(A) The owner or operator of each source subject to subparagraph (3)(B)3.A. and paragraph (3)(C)3. of this rule shall submit a written report of excess emissions for each calendar quarter to the director within thirty (30) days following the end of the quarter. Each report shall—

1. Contain the magnitude of sulfur dioxide emissions as follows:

A. For sources subject to subparagraph (3)(B)3.A. of this rule, the magnitude shall be reported in pounds per million Btus of all daily (00:01 to 24:00) averages of sulfur dioxide emissions greater than the emission rate allowed by part (3)(B)3.A.(II) of this rule; and

B. For sources subject to paragraph (3)(C)3. of this rule, the magnitude shall be reported in parts per million of each two (2)-hour arithmetic average of sulfur dioxide emissions greater than the emission rate allowed by subsection (3)(A) of this rule;

2. Identify each period during which the continuous monitoring system was inoperative, except for zero and span checks and the nature of repairs and adjustments performed to make the system operative; and

3. Contain a statement that no excess emissions occurred during the quarter, except as reported or during periods when the continuous monitoring system was inoperative. Data reduction and conversion procedures shall conform to the provisions of 40 CFR 60.13(h) and 60.45(e) and (f);

(B) Each owner or operator required to file quarterly reports under this section and, for a minimum of two (2) years from the date of the quarterly report, shall maintain a file of the following:

1. All information reported in the quarterly reports;

2. All other data collected by the continuous monitoring system or necessary to convert the monitoring data to the units of the applicable emission limitation;

3. All continuous monitoring system performance evaluations;

4. All continuous monitoring system or monitoring device calibration checks;

5. Monitoring system, monitoring device, and performance testing measurements; and

6. Adjustments and maintenance performed on these systems or devices; and

(C) Files shall be kept available for inspection by the director during regular business hours.

(5) Test Methods.

(A) Source testing to determine compliance with sulfur dioxide emission limits shall be done as specified in 10 CSR 10-6.030(6) or by an alternate method described in 40 CFR 60 Appendix A. Source testing to determine compliance with sulfur trioxide and/or sulfuric acid mist emission limits concurrently with sulfur dioxide compliance shall be done as specified in 10 CSR 10-6.030(8).

(B) The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be done as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.

EPA Rulemakings

CFR: 40 C.F.R. 52.1320(c)
FRM: 78 FR 69995 (11/22/2013)
PRM: 78 FR 70007 (11/22/2013)
State Submission: 09/5/2012
State Final: 643.050, RSMo Supp. 2011* 10 C.S.R. 10-6 (8/31/2012); effective 9/30/2012
APDB File: MO-322, MO-323; EPA-R07-OAR-2013-0585
Description: This revision removes outdated sulfur dioxide standards and outdated compliance dates. Several within-rule references are being amended due to the revisions. Section (3)(A)1-4 are approved pursuant to 111(d) only.

CFR: 40 C.F.R. 52.1320(c)
FRM: 73 FR 35071 (06/20/2008)
PRM: 73 FR 35111 (06/20/2008)
State Submission: 03/28/2008
State Final: 10 C.S.R. 10-6 (01/30/2008); effective 02/29/2008
APDB File: MO-271; EPA-R07-OAR-2008-0342
Description: This revision updates the sulfur dioxide emission rates and averaging time in Table 1 for Kansas City Power and Light's (KCP&L) Hawthorn Plant and Montrose Station.

CFR: 40 C.F.R. 52.1320(c) and 62.6350(b)(4)
FRM: 71 FR 12623 (03/13/2006)
PRM: 70 FR 57531 (10/03/2005)
State Submission: 06/02/2004
State Final: 10 C.S.R. 10-6 (04/30/2004); effective 05/30/2004
APDB File: MO-206; Docket No. EPA-R07-OAR-2005-MO-0006
Description: This rule revision updates the rule to correct inaccurate source information, provides an exemption for natural gas fueled combustion, and clarifies the exemption for source categories subject to a new source performance standard to assure that such sources are subject to sulfur limits. This action disapproved the revision to the emission rate for Kansas City Power & Light's Hawthorn and Montrose Station facilities. Revision to Sections (3)(A)1,2,3 and 4 are approved into the 111(d) plan.

CFR: 40 C.F.R. 52.1320(c)(108) and 62.6350(b)(3)
FRM: 63 FR 45727 (8/27/98)
PRM: 63 FR 13154 (3/18/98)
State Submission: 8/12/97
State Proposal: 21 MR (7/1/96) 1616
State Final: 10 C.S.R. 10-6 (7/31/96)
APDB File: MO-95
Description: This rule consolidates the SO_2 requirements previously contained in eight separate rules into one statewide rule (10 C.S.R. 10-2.160, 2.200, 3.100, 3.150, 4.150, 4.190, 5.110, and 5.150). Section (3) of the rule was approved only pursuant to section 111(d) of the Clean Air Act.

Difference Between the State and EPA-Approved Regulation

Section (3)(A)(1-4) approved pursuant to 111d only.