MISSOURI DEPARTMENT OF NATURAL RESOURCES
Air Pollution Control Program

PUBLIC HEARING ON

PROPOSED RULE

10 CSR 10-6.261

CONTROL OF SULFUR DIOXIDE EMISSIONS

This new rule will set enforceable environmental conditions and emission limits necessary to address the U.S. Environmental Protection Agency's (EPA's) 1-hour sulfur dioxide (SO_2) National Ambient Air Quality Standard (NAAQS) of 75 parts per billion (ppb) [75 Federal Register (FR) 35520, June 22, 2010]. The rule is a core component of the Missouri State Implementation Plan (SIP) for the Jackson County SO_2 nonattainment area. In addition, this proposed rule incorporates all necessary existing provisions from 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds (i.e., provisions in place prior to the 1-hour SO_2 NAAQS) in order to consolidate SO_2 requirements and reduce confusion for Missouri's SO_2 emission sources.

NOTE - All unshaded text below this line is printed in the Missouri Register. The Air Pollution Control Program included fiscal notes for the rulemaking when it was filed with the Secretary of State's Office. The Secretary of State's Office did not print the fiscal notes in the Missouri Register since the cost was less than five hundred dollars ($500). The fiscal notes are included as shaded text after the rulemaking text in this briefing document for your information.

Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 10—Air Conservation Commission

Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

PROPOSED RULE

10 CSR 10-6.261 Control of Sulfur Dioxide Emissions. If the commission adopts this rule action, it will be the department's intention to submit this new rule to the U.S. Environmental Protection Agency for inclusion in the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

PURPOSE: This rule establishes requirements for emission units emitting sulfur dioxide (SO_2). These requirements are necessary to comply with the one (1)-hour SO_2 National Ambient Air Quality Standard (NAAQS) and to maintain existing SO_2 regulatory requirements previously found in 10 CSR 10-6.260 that were in place prior to the establishment of the one (1)-hour SO_2 NAAQS. The rule consolidates, streamlines, and updates existing regulatory requirements in accordance with 536.175, RSMo. The evidence supporting the need for this proposed rulemaking, per 536.016, RSMo, is a June 22, 2010, ***Federal Register*** *rule that established a new one (1)-hour SO_2 standard and an August 5, 2013,* ***Federal Register*** *rule that established one (1)-hour SO_2 nonattainment areas.*

(1) Applicability. This rule applies to any source that emits sulfur dioxide (SO_2). The following exceptions apply to any source not listed in Table I of this rule. Owners or operators of units that meet the exception criteria must furnish the director information necessary to confirm the criterion is met.

(A) Individual units fueled exclusively with natural gas (as defined in 40 CFR 72.2) or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM) International or any combination of these fuels as of December 31, 2016;

(B) Individual indirect heating units with a rated capacity less than or equal to three hundred fifty thousand British thermal units (350,000 Btus) per hour actual heat input; or

(C) Individual units subject to a more restrictive SO_2 emission limit or more restrictive fuel sulfur content limit under –

1. 10 CSR 10-6.070; or
2. Any federally enforceable permit.

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

(3) General Provisions.

(A) SO_2 Emission Limits. No later than January 1, 2017, owners or operators of sources and units listed in Table I of this rule must limit their SO_2 emissions as specified. As of the effective date of this rule, owners or operators of sources listed in Table II of this rule must limit their SO_2 emissions as specified.

Table I – Sources with SO_2 emission limits necessary to address the one (1)-hour SO_2 National Ambient Air Quality Standard*

Source	Source ID	Emission Limit per Source/Unit (Pounds SO_2 per Hour)	Averaging Time
Ameren Missouri — Labadie Energy Center	0710003	40,837	24-hour block average
Ameren Missouri	1890010	7,371	24-hour

— Meramec Energy Center			block average
Ameren Missouri — Rush Island Energy Center	0990016	13,600	24-hour block average
Independence Power and Light — Blue Valley Station Unit 1 Unit 2 Unit 3	0950050	 Natural gas Natural gas Natural gas	 N.A. N.A. N.A.
Kansas City Power and Light Co. — Hawthorn Station Boiler #5 Combustion turbine 7 Combustion turbine 8 Combustion turbine 9	0950022	 785 Natural gas Natural gas Natural gas	 30-day rolling N.A. N.A. N.A.
Kansas City Power and Light Co. — Sibley Generating Station Boiler #1 Boiler #2 Boiler #3	0950031	 1,468.17 1,447.01 10,632.02	 30-day rolling 30-day rolling 30-day rolling
Veolia Energy Kansas City Inc. — Grand Ave. Station Boiler 1A Boiler 6 & 8 Boiler 7	0950021	 0.5 351.8 0.5	 1 hour 1 hour 1 hour

*Any Table I source/unit fueled by coal, diesel, or fuel oil shall require an SO_2 Continuous Emission Monitoring System (CEMS) and owners or operators must follow all applicable requirements per subparagraph (3)(E)1.B. of this rule. Any source/unit that is fueled by natural gas (or changes fuels to natural gas no later than January 1, 2017) shall no longer require SO_2 CEMS for such units beginning with the completion date of the fuel change to natural gas.

Table II – Sources subject to SO_2 emission limits in place prior to 2010

Source	Source ID	Emission Limit per Source (Pounds SO_2 per Million Btus Actual Heat Input)	Averaging Time

Associated Electric Coop, Inc. — Chamois Plant	1510002	6.7	3 hours
Empire District Electric Company — Asbury Plant	0970001	12.0	3 hours
New Madrid Power Plant — Marston	1430004	10.0	3 hours
Thomas Hill Energy Center Power Division — Thomas Hill	1750001	8.0	3 hours
University of Missouri (MU) — Columbia Power Plant	0190004	8.0	3 hours
Kansas City Power and Light Co. — Montrose Generating Station	0830001	3.9	24 hours
Ameren Missouri — Sioux Plant	1830001	4.8	Daily average, 00:01 to 24:00
Doe Run Company — Buick Resource Recycling Facility	0930009	8,650 pounds SO_2/hr	1-hour test repeated 3 times

(B) Owners or operators of indirect heating sources with a total capacity, excluding exempt units, greater than three hundred fifty thousand British thermal units (350,000 Btus) per hour actual heat input must limit their SO_2 emissions as follows:

1. For sources located in Missouri, other than in Franklin, Jefferson, St. Louis, St. Charles Counties, or City of St. Louis, no more than eight pounds (8 lbs.) of SO_2 per million Btus actual heat input averaged on any consecutive three (3)-hour time period unless that source is listed in Table I or II of this rule; and
2. For sources located in Franklin, Jefferson, St. Louis, St. Charles Counties, or City of St. Louis, no more than two and three-tenths pounds (2.3 lbs.) of SO_2 per million Btus actual heat input averaged on any consecutive three (3)-hour time period unless —
   A. The source is listed in Table I or II of this rule; or
   B. The source has a total rated capacity of less than two thousand (2,000) million Btus per hour and then the following restrictions apply.
      (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. Otherwise,

no person shall burn or permit the burning of any coal or fuel oil containing more than four percent (4%) sulfur.

(II) Part (3)(B)2.B.(I) of this rule shall not apply to any source if it can be shown that emissions of SO_2 from the source into the atmosphere will not exceed two and three-tenths pounds (2.3 lbs.) per million Btus actual heat input to the source.

(C) Owners or operators of sources and units not covered under subsection (3)(A) or (3)(B) of this rule must limit the fuel sulfur content as specified below.

Source or unit	Liquid fuel sulfur content in parts per million (ppm) sulfur	
	Residual	Distillate
New	8,509	8,812
Existing	34,036	35,249

(D) No later than January 1, 2017, owners or operators of sources subject to this rule in Jackson and Jefferson Counties must accept for delivery only ultra-low sulfur distillate fuel oil with a maximum fuel sulfur content of fifteen (15) ppm for use in unit(s) fueled, in whole or in part, by diesel, No. 1 fuel oil and/or No. 2 fuel oil.

(E) Compliance Determination. Compliance must be determined as follows:

1. For sources and/or units listed in Table I of this rule, SO_2 Continuous Emission Monitoring System (CEMS) data.
   A. SO_2 CEMS are not required for the following cases:
      (I) Units fueled exclusively by natural gas and not using any secondary fuel; or
      (II) Units fueled by natural gas and only using fuel oil for less than forty-eight (48) hours annually and only for qualifying situations (e.g., testing, maintenance or operator training). The forty-eight (48)-hour annual limit for the use of fuel oil as a secondary fuel shall not include qualifying curtailment events and compliance must be demonstrated using paragraph (3)(D)3. of this rule;
   B. SO_2 CEMS must follow the requirements in 40 CFR 75 and/or 40 CFR 60, Appendices B and F, as incorporated by reference in subsection (5)(B) of this rule;
2. For sources listed in Table II of this rule already subject to a SO_2 CEMS requirement, SO_2 CEMS data; and
3. For sources subject to subsection (3)(B) or (3)(C) of this rule not required to use SO_2 CEMS for compliance and for sources listed in Table II of this rule not required to use SO_2 CEMS for compliance—
   A. Fuel delivery records;
   B. Fuel sampling and analysis;
   C. Performance tests;

D. Continuous emission monitoring; or

E. Other compliance methods approved by the staff director and the U.S. Environmental Protection Agency and incorporated into the state implementation plan.

(4) Reporting and Record Keeping.

(A) Owners or operators of all sources subject to this rule must—

1. Report any excess emissions other than startup, shutdown, and malfunction excess emissions already required to be reported under 10 CSR 10-6.050 to the staff director for each calendar quarter within thirty (30) days following the end of the quarter. In all cases, the notification must be a written report and must include, at a minimum, the following:

A. Name and location of source;

B. Name and telephone number of person responsible for the source;

C. Identity and description of the equipment involved;

D. Time and duration of the period of SO_2 excess emissions;

E. Type of activity;

F. Estimate of the magnitude of the SO_2 excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;

G. Measures taken to mitigate the extent and duration of the SO_2 excess emissions; and

H. Measures taken to remedy the situation which caused the SO_2 excess emissions and the measures taken or planned to prevent the recurrence of these situations;

2. Maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess SO_2 emissions;

3. Maintain a record of data, calculations, results, records, and reports from any SO_2 emissions performance test, SO_2 continuous emission monitoring, fuel deliveries, and/or fuel sampling tests; and

4. Maintain a record of any applicable SO_2 monitoring data, performance evaluations, calibration checks, monitoring system and device performance tests, and any adjustments and maintenance performed on these systems or devices.

(B) Owners or operators of sources using SO_2 CEMS for compliance must also—

1. If SO_2 CEMS is already used to satisfy other requirements (other than only to demonstrate compliance with this rule), continue to follow all correlating SO_2 CEMS requirements; or

2. If SO_2 CEMS is used only to demonstrate compliance with this rule, the SO_2 CEMS and any necessary auxiliary monitoring equipment must follow the requirements in subsection (5)(B) of this rule.

(C) Owners or operators of sources using fuel delivery records for compliance must also maintain the fuel supplier certification information to certify all fuel deliveries. Bills of lading and/or other fuel delivery documentation containing the following information for all fuel purchases or deliveries are deemed acceptable to comply with the requirements of this rule:

1. The name, address, and contact information of the fuel supplier;
2. The type of fuel (bituminous or sub-bituminous coal, diesel, #2 fuel oil, etc.);
3. The moisture content of the coal (if applicable);
4. The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
5. The heating value of the fuel.

(D) Owners or operators of sources using fuel sampling and analysis for compliance must also follow the requirements in subsection (5)(D) of this rule.

(E) Owners or operators of sources using SO_2 emissions performance tests for compliance must also follow the requirements in subsection (5)(A) of this rule.

(F) All required reports and records must be retained on-site for a minimum of five (5) years and made available within five (5) business days upon written or electronic request by the director.

(G) Owners or operators of sources subject to this rule must furnish the director all data necessary to determine compliance status.

(5) Test Methods.

(A) Owners or operators of sources must use one (1) or more of the following test methods contained in 40 CFR 60, Appendix A, published as of July 1, 2014, and hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408, to determine compliance with SO_2 emission limits in this rule. This rule does not incorporate any subsequent amendments or additions.

1. Method 1: Sample and velocity traverses for stationary sources;
2. Method 2: Determination of stack gas velocity and volumetric flow rate (Type S pitot tube);
3. Method 3: Gas analysis for the determination of dry molecular weight;
4. Method 4: Determination of moisture content in stack gases;
5. Method 6: Determination of Sulfur Dioxide Emissions from Stationary Sources;
6. Method 6A: Determination of Sulfur Dioxide, Moisture, and Carbon Dioxide from Fuel Combustion Sources;
7. Method 6B: Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions from Fossil Fuel Combustion Sources;
8. Method 6C: Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure); and/or
9. Method 8: Determination of sulfuric acid mist and sulfur dioxide emissions from stationary sources.

(B) Owners or operators of sources using a SO_2 CEMS for demonstrating compliance with this rule must follow the requirements in 40 CFR 75 and/or 40 CFR 60, Appendices B and F, published as of July 1, 2014, which are hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

(C) Owners or operators of secondary lead smelters must operate an SO_2 CEMS as follows:

1. The SO_2 CEMS must be certified by the owner or operator in accordance with 40 CFR 60 Appendix B, Performance Specification 2 and Section 60.13 as is pertinent to SO_2 continuous emission monitors as adopted by reference in 10 CSR 10-6.070.
2. The span of SO_2 continuous emission monitors must be set at an SO_2 concentration of one-fifth percent (0.20%) by volume.

(D) Owners or operators of sources must use fuel sampling and analysis to determine sulfur weight percent, or equivalent, of fuel(s) used to operate fuel emission sources and/or units regulated by this rule in accordance with 10 CSR 10-6.040.

(E) The heating value of the fuel must be determined as specified in 10 CSR 10-6.040. The actual heat input must be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.

(F) Owners or operators of sources may use an alternative test method that provides results at least the same accuracy and precision as the replaced method, and is approved in advance by the staff director, the EPA, and incorporated into the state implementation plan.

AUTHORITY: section 643.050, RSMo Supp. 2014. Original rule filed April 10, 2015.

PUBLIC COST: This proposed rule will not cost public entities or political subdivisions more than five hundred dollars ($500) in the aggregate. Fiscal notes are provided for this proposed rule to document detailed information and assumptions associated with the economic cost estimates.

PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars ($500) in the aggregate. Fiscal notes are provided for this proposed rule to document detailed information and assumptions associated with the economic cost estimates.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed rule will begin at 9:00 a.m., June 25, 2015. The public hearing will be held at the Governor Office Building, 200 Madison Street, Jefferson City, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., July 2, 2015. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-

0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

FISCAL NOTE
PUBLIC COST

I. Department Title: Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

Rule Number and Name:	10 CSR 10-6.261 Control of Sulfur Dioxide Emissions
Type of Rulemaking:	New Rule

II. SUMMARY OF FISCAL IMPACT

Affected Agency or Political Subdivision	Estimated Cost of Compliance in the Aggregate
1 municipal utility identified in Table I of the rule	$ 0
119 businesses (such as electric services, manufacturing, heating) with sulfur dioxide emissions as reported on 2012 Emission Inventory Questionnaire for entire state	$ 0

III. WORKSHEET

(Not Applicable)

IV. ASSUMPTIONS

1. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years although the duration of the rule is indefinite. If the life of the rule extends beyond ten (10) years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.

2. There are no new costs in transferring the existing 10 CSR 10-6.260 rule requirements, limits, and conditions to new rule 10 CSR 10-6.261. The monitoring, compliance, reporting, and recordkeeping requirements also have no new costs as they are existing

requirements from 6.260.

3. In addition to the consolidation of 6.260 into the new rule, rule 6.261 sets limits and/or conditions for sources located in Jackson and Jefferson counties SO_2 nonattainment areas (listed in Table I of the rule) to comply with the 1-hour sulfur dioxide National Ambient Air Quality Standard (NAAQS).

   Table I sources and units subject to this rule will incur no new costs as a result of this rule. Two (2) sources will switch to natural gas to comply with the federal Mercury and Air Toxics Standards (MATS) and/or the federal industrial boiler Maximum Achievable Control Technology (MACT). The other sources and units will comply with SO_2 emission limits through adjustments and modifications to existing equipment as part of their standard operating procedures. These adjustments would not require the installation of new SO_2 pollution control equipment.

4. Requiring sources in Jackson and Jefferson Counties subject to this rule to use Ultra Low Sulfur Diesel (ULSD) is not considered a new cost since that is the only diesel fuel currently available. Per the federal Low Sulfur Diesel (LSD) [500 ppm] and Ultra Low Sulfur Diesel [15 ppm] regulations [40 CFR 80 Subpart I], Diesel Fuel Grades 1-D & 2-D are required to be 100% ULSD for both highway diesel fuel and Non-road diesel fuel by 2014 (or earlier). Also, the provisions allowing qualifying small refiners credit options to produce higher sulfur fuels all expire in 2014 (or earlier) for both highway diesel fuel and Non-road diesel. As a result, ULSD requirements dictate 100% of Non-road Diesel Fuel Grades 1-D & 2-D, shall satisfy ULSD requirements in 2014. Refiners are not making any higher sulfur content diesel fuels and we are not aware of any diesel with fuel sulfur content greater than 15 ppm currently available or stockpiled in the state. Therefore, all future diesel fuel deliveries will meet the ULSD requirement with no additional cost as a result of this rule.

FISCAL NOTE
PRIVATE COST

I. Department Title: Department of Natural Resources
Division Title: Air Conservation Commission
Chapter Title: Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

Rule Number and Title:	10 CSR 10-6.261 Control of Sulfur Dioxide Emissions
Type of Rulemaking:	New Rule

II. SUMMARY OF FISCAL IMPACT

Estimate of the number of entities by class which would likely be affected by the adoption of the rule:	Classification by types of the business entities which would likely be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
6 entities	Electric generating units (EGUs) identified in Table I of rule	$ 0
709 entities	Businesses (such as electric services, manufacturing, heating) with sulfur dioxide emissions as reported on 2012 Emission Inventory Questionnaire for entire state	$ 0

III. WORKSHEET

(Not Applicable)

II. ASSUMPTIONS

1. For the convenience of calculating this fiscal note over a reasonable time frame, the life of the rule is assumed to be ten (10) years although the duration of the rule is indefinite. If the life of the rule extends beyond ten (10) years, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.

2. There are no new costs in transferring the existing 10 CSR 10-6.260 rule requirements,

limits, and conditions to new rule 10 CSR 10-6.261. The monitoring, compliance, reporting, and recordkeeping requirements also have no new costs as they are existing requirements from 6.260.

3. In addition to the consolidation of 6.260 into the new rule, rule 6.261 sets limits and/or conditions for sources located in Jackson and Jefferson counties SO_2 nonattainment areas (listed in Table I of the rule) to comply with the 1-hour sulfur dioxide National Ambient Air Quality Standard (NAAQS).

   Table I sources and units subject to this rule will incur no new costs as a result of this rule. Two (2) sources will switch to natural gas to comply with the federal Mercury and Air Toxics Standards (MATS) and/or the federal industrial boiler Maximum Achievable Control Technology (MACT). The other sources and units will comply with SO_2 emission limits through adjustments and modifications to existing equipment as part of their standard operating procedures. These adjustments would not require the installation of new SO_2 pollution control equipment.

4. Requiring sources in Jackson and Jefferson Counties subject to this rule to use Ultra Low Sulfur Diesel (ULSD) is not considered a new cost since that is the only diesel fuel currently available. Per the federal Low Sulfur Diesel (LSD) [500 ppm] and Ultra Low Sulfur Diesel [15 ppm] regulations [40 CFR 80 Subpart I], Diesel Fuel Grades 1-D & 2-D are required to be 100% ULSD for both highway diesel fuel and Non-road diesel fuel by 2014 (or earlier). Also, the provisions allowing qualifying small refiners credit options to produce higher sulfur fuels all expire in 2014 (or earlier) for both highway diesel fuel and Non-road diesel. As a result, ULSD requirements dictate 100% of Non-road Diesel Fuel Grades 1-D & 2-D, shall satisfy ULSD requirements in 2014. Refiners are not making any higher sulfur content diesel fuels and we are not aware of any diesel with fuel sulfur content greater than 15 ppm currently available or stockpiled in the state. Therefore, all future diesel fuel deliveries will meet the ULSD requirement with no additional cost as a result of this rule.

PUBLIC HEARING ON

PROPOSED RESCISSION OF

10 CSR 10-6.260

RESTRICTION OF EMISSION OF SULFUR COMPOUNDS

This rulemaking will rescind the current rule. The department's Air Pollution Control Program is proposing a new sulfur dioxide (SO_2) rule, 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions, that addresses requirements for sources affected by the U.S. Environmental Protection Agency's initial 1-hr SO_2 National Ambient Air Quality Standard (NAAQS) nonattainment designations. The intent is for 10 CSR 10-6.261 to serve as the state's SO_2 rule that will be amended as needed over time to comply with future implementation phases of the 1-hour SO_2 NAAQS. That new rule also carries forward requirements as is from 10 CSR 10-6.260 needed to maintain existing levels of SO_2 control in areas outside nonattainment areas.

NOTE 1 - Legend for rule actions to be presented at public hearing is as follows:

* *Shaded Text - Rule sections or subsections not proposed for amendment. This text is only for reference.*
* *Unshaded Text - Rule sections or subsections that are proposed for change.*

NOTE 2 - All unshaded text below this line is printed in the Missouri Register.

Title 10—DEPARTMENT OF NATURAL RESOURCES

Division 10—Air Conservation Commission

Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

PROPOSED RESCISSION

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds. This rule limited the maximum allowable concentration of sulfur compounds in source emissions and in the ambient air. If the commission adopts this rule action, the department intends to submit this rule rescission to the U.S. Environmental Protection Agency for removal from the Missouri State Implementation Plan. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, www.dnr.mo.gov/regs/index.html.

PURPOSE: This rulemaking rescinds the current rule, 10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds. The Air Pollution Control Program is proposing a new sulfur dioxide (SO_2) rule, 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions, that addresses requirements for sources affected by the Environmental Protection Agency's initial one (1)-hr SO_2 National Ambient Air Quality Standard nonattainment designations that will carry forward requirements as is from 10 CSR 10-6.260 needed to maintain existing levels of SO_2 control in nondesignated parts of the state (i.e., areas outside nonattainment areas). In addition, the new rule will eliminate 10 CSR 10-6.260 provisions that are obsolete or redundant with other requirements. The rescission is being proposed now because the proposed new sulfur dioxide rule, 10 CSR 10-6.261, is on schedule. Rescinding 10 CSR 10-6.260 is meant to occur at the same time as the adoption of the new rule. The evidence supporting the need for this proposed rulemaking, per 536.016, RSMo, is a June 22, 2010, ***Federal Register*** *rule that established a new one (1)-hour SO_2 standard and an August 5, 2013,* ***Federal Register*** *rule that established one (1)-hour SO_2 nonattainment areas.*

PURPOSE: This rule establishes the maximum allowable concentration of sulfur compounds in source emissions and in the ambient air.

(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.

(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:

Emission

Facility	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**
Doe Run Company, Lead Smelter and Refinery—Glover, Missouri Two stacks:	1 hour test repeated 3 times	
Sinter machine off-gas stack		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 SO2/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.

AUTHORITY: section 643.050, RSMo Supp. 2011. Original rule filed Jan. 19, 1996, effective Aug. 30, 1996. Amended: Filed Sept. 29, 2003, effective May 30, 2004. Amended: Filed June 26, 2007, effective Feb. 29, 2008. Amended: Filed Dec. 16, 2008, effective Sept. 30, 2009. Amended: Filed Jan. 31, 2012, effective Sept. 30, 2012. Rescinded: Filed April 10, 2015.

PUBLIC COST: This proposed rescission will not cost public entities or political subdivisions more than five hundred dollars ($500) in the aggregate.

PRIVATE COST: This proposed rescission will not cost private entities more than five hundred dollars ($500) in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: A public hearing on this proposed rescission will begin at 9:00 a.m., June 25, 2015. The public hearing will be held at the Governor's Office Building, 200 Madison Street, Jefferson City, Missouri. Opportunity to be heard at the hearing shall be afforded any interested person. Interested persons, whether or not heard, may submit a written or email statement of their views until 5:00 p.m., July 2, 2015. Written comments shall be sent to Chief, Air Quality Planning Section, Missouri Department of Natural Resources' Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102-0176. Email comments shall be sent to apcprulespn@dnr.mo.gov.

PROPOSED: MISSOURI STATE IMPLEMENTATION PLAN REVISION– NONATTAINMENT AREA PLAN FOR THE 2010 1-HOUR SULFUR DIOXIDE NATIONAL AMBIENT AIR QUALITY STANDARD – JACKSON COUNTY SULFUR DIOXIDE NONATTAINMENT AREA

The Missouri Department of Natural Resources' Air Pollution Control Program is proposing to amend the Missouri State Implementation Plan (SIP).

The main purpose of this SIP revision is to address Clean Air Act Amendments of 1990 (CAAA) section 172(c) and section 191(a) plan requirements as applicable to the Jackson County 2010 1-Hour Sulfur Dioxide (SO_2) Nonattainment Area (NAA). The plan's main control strategy includes the reduction of SO_2 emissions by 95 percent from the largest source in the NAA. The plan also relies on SO_2 emission limits and unit specific fuel requirements for several other large sources in the area through state rulemaking. All emission limitations and requirements necessary for demonstrating compliance with the NAA plan will be enforceable through the proposed new state Missouri SO_2 rulemaking, 10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*. The projected effective date of this proposed new rule is November 2015. The implementation deadline for the new requirements under the proposed rule is January 1, 2017.

This SIP revision also addresses CAAA required elements, including a reasonably available control measures (RACM) analysis, reasonable further progress requirements and contingency requirements. Multiple air dispersion modeling scenarios were evaluated in the determination that the area will demonstrate compliance with the 2010 1-Hour SO_2 National Ambient Air Quality Standard no later than October 4, 2018.

The complete plan has not been reprinted in the briefing document due to its volume. The entire plan is available for review at the Missouri Department of Natural Resources' Air Pollution Control Program, 1659 East Elm Street, Jefferson City, Missouri 65101, (573) 751-4817. It is also available online at http://dnr.mo.gov/env/apcp/stateplanrevisions.htm

The following pages are included in the briefing document for reference:

- EXECUTIVE SUMMARY
- CONTROL STRATEGY
- CONCLUSION

If the commission adopts this plan, the department intends to submit it to the U.S. Environmental Protection Agency for inclusion in the Missouri State Implementation Plan.

EXECUTIVE SUMMARY

On June 22, 2010, the U.S. Environmental Protection Agency (EPA) established a new 1-hour sulfur dioxide (SO_2) primary National Ambient Air Quality Standard (NAAQS) of 75 parts per billion (ppb), based on the three-year average of the annual 99th percentile of 1-hour daily maximum concentrations (75 FR 35520; June 22, 2010). This new SO_2 standard replaces the previous 24-hour and annual primary SO_2 NAAQS promulgated in 1971 (36 FR 8187; April 30, 1971). Once EPA establishes or revises a NAAQS, EPA must designate as "nonattainment" those areas that violate or contribute to violations of the NAAQS pursuant to section 107(d) of the federal Clean Air Act Amendments of 1990 (CAAA).

On August 5, 2013, the EPA designated a portion of Jackson County, Missouri as nonattainment for the 2010 SO_2 primary NAAQS, effective October 4, 2013. The Jackson County SO_2 Nonattainment Area (NAA) is bounded by I-70 & I-670 to the south, I-435 to the east, the Missouri River to the north, and the state line with Kansas to the west. Air quality data from 2007-2009 as well as monitoring data from 2010-2012 indicated a violation of the NAAQS (78 FR 47191; August 5, 2013). The final boundary designation rule is codified in 40 CFR §81.326 *Missouri*.

The main purpose of this SIP revision is to address CAAA section 172(c) plan requirements applicable to the Jackson County SO_2 NAA. This SIP revision demonstrates attainment for the Jackson County SO_2 NAA using air dispersion modeling that includes the continuation and modification of existing control strategies as well as additional control measures being proposed concurrently with this SIP revision. The main control strategy is the 95% reduction of emissions from the largest SO_2 source in the NAA. Examples of additional controls include fuel switching to burn exclusively natural gas, new lower SO_2 emission limitations, and the delivery of Ultra Low Sulfur Diesel (ULSD) at all facilities currently using diesel fuel (and No.1 or No. 2 distillate fuel oils) that are located within the nonattainment area and throughout Jackson County.

Per section 191(a) of the CAAA, Missouri is required to submit to the EPA a nonattainment area State Implementation Plan (SIP) revision for SO_2 that demonstrates the nonattainment area will reach attainment of the 2010 SO_2 primary NAAQS as expeditiously as practicable, but no later than October 4, 2018, which is five years from the date of the nonattainment designation.

The new emission limits, fuel switches, and fuel sulfur content requirements identified for this SIP revision will be permanent and enforceable through the proposed new state SO_2 rulemaking, 10 CSR 10-6.261 *Control of Sulfur Dioxide Emissions*. The deadline to implement the rule's new requirements is January 1, 2017. This implementation date is required by EPA to demonstrate compliance with the NAAQS prior to the attainment date of October 4, 2018.

This SIP revision also addresses CAAA required elements, including a Reasonably Available Control Measures (RACM) analysis, Reasonable Further Progress (RFP) requirements and contingency requirements. Several iterations resulted in a final compliant model scenario in the determination that the area will demonstrate NAAQS compliance.

6. CONTROL STRATEGY

The NAA SIP should provide for attainment of the standard based on SO_2 emission reductions from control measures that are permanent and enforceable [section 110(a)(2)(A) of the CAAA]. Air agencies should consider all RACM/RACT. Section 172(c)(I) of the CAAA provides that "Such plan shall provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards" that can be implemented in light of the attainment needs for the affected area. In addition to the modeled control strategy of this NAA plan, the EPA has promulgated other regulatory requirements that it expects will yield substantial reductions in SO_2 emissions that will also contribute to timely attainment of the 2010 SO_2 NAAQS. The federal requirements included in the modeling scenarios of this NAA plan are described in section 4.

Pursuant to section 172(c) of the CAAA, control measures must be permanent and federally enforceable to be used in a SIP to demonstrate attainment. Federal enforceability is demonstrated via a federally approved SIP which may include a SIP-approved rule, construction permit and/or legally binding agreement such as a consent judgment or AOC.

Control measures required to model compliance for the two larger Kansas EGU sources were negotiated with affected facilities by KDHE and EPA.

6.1. PROPOSED STATE SO_2 RULE

The new control measures needed for this proposed SIP revision to demonstrate attainment for the 2010 SO_2 NAAQS in the Jackson County nonattainment area are made enforceable by the proposed new state SO_2 rule, 10 CSR 10-6.261 *Control of Sulfur Dioxide Emissions*.

As previously mentioned, required control measures include: (1) strengthened stack emission limitations for the Veolia Energy steam plant, KCPL Hawthorn station and Sibley station, and a fuel switch to Natural Gas at the IPL Blue Valley station [Section 6.1] with a compliance date of January 1, 2017 as outlined in the proposed new state SO_2 rule [Appendix I]; (2) the permanent closure of the IPL Missouri City station; and (3) the required delivery of ULSD at all facilities currently using diesel fuel (and No.1 or No. 2 distillate fuel oils) that are located within the nonattainment area and throughout Jackson County with a compliance date of January 1, 2017 per the proposed new state SO_2 rule (10 CSR 10-6.261 *Control of Sulfur Dioxide Emissions*) with a projected rule effective date in late 2015.

Once the proposed rule 10 CSR 10-6.261 is final and effective, Missouri intends to submit this NAA plan to the EPA for review and approval as an amendment to the Missouri SIP.

10. CONCLUSION

The department hereby asserts that the State has met its CAAA section 191(a) obligation to submit a plan for the Jackson County SO_2 Nonattainment Area SIP under the 2010 SO_2 NAAQS

via this SIP submittal. Furthermore, this document demonstrates attainment of the 2010 SO_2 NAAQS though air dispersion modeling of an effective control strategy as well as complying with requirements of section 172(c) in regard to this standard for the Jackson County SO_2 Nonattainment Area.