



*AUTHORITY: section 643.225, RSMo 2016, and section 643.079, RSMo Supp. 2024.\* Original rule filed Dec. 14, 1992, effective Sept. 9, 1993. Emergency amendment filed July 26, 1994, effective Aug. 5, 1994, expired Dec. 2, 1994. Emergency amendment filed Nov. 15, 1994, effective Dec. 2, 1994, expired March 31, 1995. Amended: Filed Aug. 1, 1994, effective March 30, 1995. Amended: Filed Jan. 12, 2004, effective Sept. 30, 2004. Amended: Filed June 7, 2007, effective Jan. 30, 2008. Amended: Filed July 14, 2015, effective Feb. 29, 2016. Amended: Filed May 9, 2018, effective Feb. 28, 2019. \*\* Amended: Filed June 13, 2024, effective Feb. 28, 2025.*

*\*Original authority: 643.225, RSMo 1989, amended 2011, 2012, and 643.079, RSMo 1992, amended 2005, 2007, 2011, 2013, 2014, 2022, 2023.*

*\*\*Pursuant to Executive Order 21-07, 10 CSR 10-6.250, subsection (3)(B) was suspended from April 8, 2020 through February 1, 2021.*

### 10 CSR 10-6.255 Chemical Accident Prevention for Agricultural Anhydrous Ammonia

*PURPOSE: This rule defines the Agricultural Anhydrous Ammonia Program and the requirements of facilities which are subject to this program in the state of Missouri.*

*PUBLISHER'S NOTE: The secretary of state has determined that publication of the entire text of the material that is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

#### (1) Applicability.

(A) This rule shall apply throughout Missouri to agricultural anhydrous ammonia facilities, which includes retail agricultural anhydrous ammonia facilities, and distributor or terminal agricultural anhydrous ammonia facilities.

(B) The methods of ANSI/CGA G-2.1-2023, Requirements for the Storage and Handling of Anhydrous Ammonia (Seventh Edition), as published February 14, 2023, by the Compressed Gas Association (CGA) are hereby incorporated by reference. Copies of ANSI/CGA G-2.1-2023, Requirements for the Storage and Handling of Anhydrous Ammonia (Seventh Edition), can be obtained from the American National Standards Institute (ANSI), 1899 L Street, 11th Floor, Washington, DC 20036. This rule does not incorporate any subsequent amendments or additions.

(C) Unless otherwise noted in subsections (1)(D) or (3)(A) of this rule, the provisions of 40 CFR 68, promulgated as of July 1, 2023, are hereby incorporated by reference as published by the U.S. Government Publishing Office, available at <http://bookstore.gpo.gov/> or for mail orders, print and fill out an order form online and mail to U.S. Government Publishing Office, PO Box 797050, St. Louis, MO 63197-9000. This rule does not incorporate any subsequent amendments or additions.

#### (D) Exceptions.

1. Changes to 40 CFR 68 as described in subsection (3)(A) of this rule apply.

2. The provisions of 40 CFR 68.120 are not incorporated by reference in subsection (1)(C) of this rule.

3. Agricultural anhydrous ammonia facilities that also use, store, or sell anhydrous ammonia that does not meet the definition of agricultural anhydrous ammonia are only subject

to this rule for the agricultural anhydrous ammonia that is used, stored, or sold at the facility. The anhydrous ammonia that is used, stored, or sold at the facility that is not agricultural anhydrous ammonia is not regulated by this rule.

#### (2) Definitions.

(A) Definitions for key words and phrases used in this rule may be found in 40 CFR 68.3 as incorporated by reference in subsection (1)(C) of this rule.

(B) Agricultural anhydrous ammonia – Anhydrous ammonia intended to be used as fertilizer or in the manufacturing of fertilizer.

(C) Agricultural anhydrous ammonia facility – A stationary source facility that uses, stores, or sells agricultural anhydrous ammonia that meets the threshold quantity of ten thousand (10,000) lbs. as listed in Table 2 of 40 CFR 68.130, which is incorporated by reference in subsection (1)(C) of this rule. This includes but is not limited to retail agricultural anhydrous ammonia facilities and distributor or terminal agricultural anhydrous ammonia facilities.

(D) Distributor or terminal agricultural anhydrous ammonia facility – Any facility that is subject to a risk management plan (RMP) Program 3 under 40 CFR 68, which is incorporated by reference in subsection (1)(C) of this rule, and that –

1. Provides agricultural anhydrous ammonia to retail agricultural anhydrous ammonia facilities; or

2. Uses anhydrous ammonia in the manufacture of a fertilizer.

(E) Fertilizer – Includes any organic or inorganic material of natural or synthetic origin which is added to soil, soil mixtures, or solution to supplement nutrients and contains one (1) or more essential plant nutrients.

(F) Retail agricultural anhydrous ammonia facility – An agricultural anhydrous ammonia facility that sells agricultural anhydrous ammonia to end users or applies agricultural anhydrous ammonia to agricultural fields for a fee. Farmers who hold agricultural anhydrous ammonia solely for their own use as a nutrient fertilizer are excluded from this definition.

#### (3) General Provisions.

(A) The following changes to 40 CFR 68, which is incorporated by reference in subsection (1)(C) of this rule, apply:

1. The term “agricultural anhydrous ammonia facility” as defined in section (2) of this rule shall replace the term “stationary source” anywhere it appears in 40 CFR 68; and

2. The term “recognized and generally accepted good engineering practices” as it appears in any of the provisions of 40 CFR 68 listed in subparagraphs (3)(A)2.A. – (3)(A)2.D. of this rule shall be replaced by the following clause: ANSI/CGA G-2.1-2023 Requirements for the Storage and Handling of Anhydrous Ammonia (Seventh Edition), which is incorporated by reference in subsection (1)(B) of this rule. Alternative codes and specifications may be allowed if demonstrated to be equivalent to or safer than these requirements, and such demonstration is approved in advance by the director.

A. 40 CFR 68.48(b), regarding process design.

B. 40 CFR 68.56(d), regarding inspection and testing of process equipment.

C. 40 CFR 68.65(d)(2), regarding documentation of information pertaining to the process equipment.

D. 40 CFR 68.73(d)(2), regarding inspection and testing of mechanical integrity of the process equipment listed in 40 CFR 68.73(a).

(B) Risk Management Plan (RMP) Requirements. RMPs shall



be submitted to EPA and made available during inspection visits conducted by the department staff.

**(C) Registration and Fees.**

1. Each retail agricultural anhydrous ammonia facility is subject to an annual registration fee of two hundred dollars (\$200), and an annual tonnage fee of one dollar and twenty-five cents (\$1.25) per ton of agricultural anhydrous ammonia sold or used by the retail agricultural anhydrous ammonia facility.

2. Each distributor or terminal agricultural anhydrous ammonia facility is subject to an annual registration fee of five thousand dollars (\$5,000). These entities are not subject to an annual tonnage fee.

3. Each facility will pay initial fees on March 31, 2025, for tonnage and registration for the calendar years 2023-2024.

4. In calendar years 2026 and beyond, fees are due on March 31 each year for the previous calendar year's tonnage and registration.

(4) Reporting and Recordkeeping. All reporting and recordkeeping provisions found in 40 CFR 68, which is incorporated by reference in subsection (1)(C) of this rule, including the applicable changes listed in subsection (3)(A) of this rule, apply.

(5) Test Methods. Testing shall be conducted in a manner consistent with ANSI/CGA G-2.1-2023 Requirements for the Storage and Handling of Anhydrous Ammonia (Seventh Edition), which is incorporated by reference in subsection (1)(B) of this rule. Alternative test methods may be allowed if demonstrated to be equivalent to or safer than these requirements, and such demonstration is approved in advance by the director.

*AUTHORITY: section 643.050, RSMo Supp. 2024.\* Original rule filed June 13, 2024, effective Feb. 28, 2025.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011, 2022.*

**10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds**  
(Rescinded November 30, 2015)

*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, effective Nov. 30, 2015.*

**10 CSR 10-6.261 Control of Sulfur Dioxide Emissions**

*PURPOSE: This rule establishes requirements for emission units emitting sulfur dioxide (SO<sub>2</sub>). These requirements maintain existing SO<sub>2</sub> regulatory requirements previously found in 10 CSR 10-6.260 that were in place prior to the establishment of the June 22, 2010, one (1)-hour SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS). The rule consolidates, streamlines, and updates existing regulatory requirements in accordance with 536.175, RSMo.*

*PUBLISHER'S NOTE: The secretary of state has determined that publication of the entire text of the material that is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying*

*at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

(1) Applicability. This rule applies to owners and operators of indirect heating sources that emit sulfur dioxide (SO<sub>2</sub>) and have a total capacity greater than three hundred fifty thousand British thermal units (350,000 Btus) per hour actual heat input. The following exceptions apply to any source not listed in Table I of this rule. Upon request of the director, owners or operators must furnish the director information to confirm that an exception criterion is met:

(A) Individual units fueled exclusively with natural gas (as defined in 40 CFR 72.2), liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM) International, ultra-low sulfur distillate fuel oil with a maximum fuel sulfur content of fifteen (15) ppm, or any combination of these fuels, and this exception is determined by complying with the recordkeeping requirements in subsection (4)(C) of this rule;

(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<sub>2</sub> emission limit or more restrictive fuel sulfur content limit under –

1. 10 CSR 10-6.070; or

2. Missouri's federally approved state implementation plan.

**(2) Definitions.**

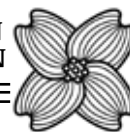
(A) Indirect heating source – A source operation in which fuel is burned for the primary purpose of producing steam, hot water, or hot air, or other indirect heating of liquids, gases, or solids where, in the course of doing so, the products of combustion do not come into direct contact with process materials.

(B) Stationary source – Any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the Clean Air Act. Building, structure, facility, or installation includes all pollutant emitting activities that are located on one (1) or more contiguous or adjacent properties and are under common control of the same person(s).

(C) Definitions of certain terms specified in this rule, other than those defined in section (2) of this rule, may be found in 10 CSR 10-6.020.

**(3) General Provisions.**

(A) SO<sub>2</sub> Emission Limits. Owners or operators of sources and/or units listed in Table I of this rule must limit their SO<sub>2</sub> emissions as specified.

**Table I – Sources subject to SO<sub>2</sub> emission limits**

Source	Source ID	Emission Limit per Source (Pounds SO <sub>2</sub> per Million Btus Actual Heat Input) <sup>a</sup>	Averaging Time
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
Doe Run Company – Buick Resource Recycling Facility	0930009	8,650 pounds SO <sub>2</sub> /hr	1-hour test repeated 3 times
Ameren Missouri – Labadie Energy Center <sup>b</sup>	0710003	4.8	Daily average, 00:01 to 24:00
Evergy Inc. – Hawthorn Generating Station <sup>c</sup>	0950022	0.12 excluding periods of startup and shutdown <sup>d</sup>	30-day rolling average

<sup>a</sup> Applies to indirect heating units only and applies to such units individually.

<sup>b</sup> Applies to Boilers 1, 2, 3, and 4 only and individually.

<sup>c</sup> Applies to Boiler 5A only.

<sup>d</sup> Natural gas shall be used for startup of Hawthorn Boiler 5A. During startup, once the unit converts to firing coal, the dry scrubber shall be started appropriately to comply with relevant standard applicable during normal operation. During shutdown, the dry scrubber shall be operated after cessation of coal being fed in the unit for as long as possible thereafter considering operational and safety concerns.

(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<sub>2</sub> 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<sub>2</sub> per million Btus actual heat input averaged on any consecutive three- (3-) hour time period unless that source is listed in Table I 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<sub>2</sub> per million Btus actual heat input averaged on any consecutive three- (3-) hour time period unless –

A. The source is listed in Table I 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 does not apply to any source if it can be shown that emissions of SO<sub>2</sub> 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) Compliance Determination. Compliance must be determined as follows:

1. For sources and/or units listed in Table I of this rule already subject to an SO<sub>2</sub> Continuous Emission Monitoring System (CEMS) requirement, SO<sub>2</sub> CEMS data –

A. SO<sub>2</sub> 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 does not include qualifying curtailment events and compliance must be demonstrated using paragraph (3)(C)2. of this rule; and

B. SO<sub>2</sub> CEMS must follow the requirements in subsection (5)(C) of this rule; and

2. For sources subject to subsection (3)(B) of this rule and for sources listed in Table I of this rule not required to use SO<sub>2</sub> 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 Recordkeeping.

(A) Owners or operators of all sources subject to any requirements in section (3) of 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 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<sub>2</sub> excess emissions;

E. Type of activity;

F. Estimate of the magnitude of the SO<sub>2</sub> 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<sub>2</sub> excess emissions; and

H. Measures taken to remedy the situation which caused



the SO<sub>2</sub> excess emissions and the measures taken or planned to prevent the recurrence of these situations;

2. Maintain a record of any applicable data, calculations, results, records, and reports from any SO<sub>2</sub> emissions performance test, SO<sub>2</sub> continuous emission monitoring, fuel deliveries, and/or fuel sampling tests that are necessary to determine compliance with the requirements of this rule; and

3. Maintain a record of any applicable SO<sub>2</sub> 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 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.

(C) Owners or operators of sources meeting an exemption listed in subsection (1)(A) of this rule must maintain documentation of all fuels combusted in the unit(s) exempted by subsection (1)(A) and documentation demonstrating these fuels meet the exemption criteria in subsection (1)(A). Documentation demonstrating the fuels meet the exemption criteria can include but is not limited to fuel contracts that specify the maximum allowable sulfur content of all fuels combusted in the exempt unit(s).

(D) 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.

(E) 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 using performance tests to demonstrate compliance with this rule must use one (1) or more of the following 40 CFR 60 test methods as specified in 10 CSR 10-6.030(22):

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

9. Method 8: Determination of sulfuric acid mist and sulfur dioxide emissions from stationary sources.

(B) For owners or operators of sources using performance tests to demonstrate compliance with this rule, 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.

(C) Owners or operators of sources using SO<sub>2</sub> CEMS for demonstrating compliance with this rule must –

1. If SO<sub>2</sub> CEMS is already used to satisfy other requirements (other than only to demonstrate compliance with this rule), continue to follow all correlating SO<sub>2</sub> CEMS requirements; or

2. If SO<sub>2</sub> CEMS is used only to demonstrate compliance with this rule, the SO<sub>2</sub> CEMS and any necessary auxiliary monitoring equipment must follow the requirements in 40 CFR 75 and/or 40 CFR 60, Appendices B and F. 40 CFR 75 promulgated as of June 30, 2018, hereby incorporated by reference in this rule, as published by the Office of the Federal Register. Copies can be obtained from the U.S. Publishing Office Bookstore, 710 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions. 40 CFR 60, Appendices B and F are as specified in 10 CSR 10-6.030(22).

(D) Owners or operators of secondary lead smelters must operate an SO<sub>2</sub> CEMS as follows:

1. The SO<sub>2</sub> 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 specified in 10 CSR 10-6.030(22) as is pertinent to SO<sub>2</sub> continuous emission monitors as adopted by reference in 10 CSR 10-6.070; and

2. The span of SO<sub>2</sub> continuous emission monitors must be set at an SO<sub>2</sub> concentration of one-fifth percent (0.20%) by volume.

(E) Owners or operators of sources using fuel sampling to demonstrate compliance with this rule 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.

(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. 2024.\* Original rule filed April 10, 2015, effective Nov. 30, 2015. Amended: Filed June 21, 2018, effective March 30, 2019. Amended: Filed Sept. 20, 2024, effective May 30, 2025.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011, 2022.*

#### **10 CSR 10-6.270 Acid Rain Source Permits Required**

*PURPOSE: This rule establishes certain general provisions and operating permit program requirements for affected sources and affected units under the federal Acid Rain Program.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies*



only to the reference material. The entire text of the rule is printed here.

(1) Applicability. This rule applies to the sources and affected units subject to the federal Acid Rain Program described under 40 CFR 72.6 as specified in section (3) of this rule.

(2) Definitions. Definitions of terms that apply to the Acid Rain Program may be found in 40 CFR 72.2 and 40 CFR 76.2 as specified in section (3) of this rule.

(3) General Provisions.

(A) The provisions under 40 CFR 72, 40 CFR 73, 40 CFR 75, 40 CFR 76, 40 CFR 77, and 40 CFR 78, promulgated as of July 1, 2019 shall apply and are hereby incorporated by reference in this rule, as published by the Office of the Federal Register. Copies can be obtained from the U.S. Publishing Office Bookstore, 710 N. Capitol Street NW, Washington DC 20401. This rule does not incorporate any subsequent amendments or additions.

(B) If the provisions or requirements of 40 CFR 72 and 40 CFR 75 conflict with or are not included in Missouri state rule 10 CSR 10-6.065 Operating Permits Required, the provisions and requirements of 40 CFR 72 and 40 CFR 75 take precedence.

(4) Reporting and Record Keeping. Reporting and record keeping requirements are specified in the federal regulations incorporated by reference under section (3) of this rule.

(5) Test Methods. Test methods are specified in the federal regulations incorporated by reference under section (3) of this rule.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed June 2, 1994, effective Dec. 30, 1994. Amended: Filed Oct. 9, 1998, effective Aug. 30, 1999. Amended: Filed Nov. 25, 2019, effective Sept. 30, 2020.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

### 10 CSR 10-6.280 Compliance Monitoring Usage

*PURPOSE: This rule is necessary to meet the federal Clean Air Act requirements for alternate compliance certification methods and to enhance the enforceability of the state implementation plan. This rule does this by establishing a methodology for identifying acceptable testing, monitoring, or information.*

(1) Applicability. This regulation applies to air pollution sources throughout Missouri.

(2) Definitions. *(Not Applicable)*

(3) General Provisions.

(A) Compliance Certifications. Regardless of any other provision in any plan approved by the administrator, for the purpose of submission of compliance certificates the owner or operator may use the following in addition to any specified compliance methods:

1. Monitoring methods outlined in 40 CFR 64 promulgated as of July 1, 2018 is hereby incorporated by reference as published by the Office of the Federal Register. Copies can be obtained from the U.S. Publishing Office Bookstore, 710 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions;

2. Monitoring method(s) approved for the source pursuant

to 10 CSR 10-6.065 Operating Permits, and incorporated into an operating permit; and

3. Any other monitoring methods approved by the director.

(B) Enforcement. Regardless of any other provision in the state implementation plan, any credible evidence may be used for the purpose of establishing whether a source or facility has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

1. Monitoring methods outlined in 40 CFR 64, as incorporated by reference in paragraph (3)(A)1. of this rule.

2. A monitoring method approved for the source pursuant to 10 CSR 10-6.065 Operating Permits, and incorporated into an operating permit; and

3. Compliance test methods specified in this rule cited as the authority for the emission limitations.

(4) Reporting and Record Keeping. *(Not Applicable)*

(5) Test Methods. The following testing, monitoring, or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

(A) Applicable monitoring or testing methods, cited in: 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources; 10 CSR 10-6.040 Reference Methods; 10 CSR 10-6.070 New Source Performance Standards; 10 CSR 10-6.075 Maximum Achievable Control Technology Regulations; and 10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants; or

(B) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method in subsection (3) (B) or subsection (5)(A).

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed June 2, 1994, effective Dec. 30, 1994. Amended: Filed July 12, 2001, effective March 30, 2002. Amended: Filed May 9, 2018, effective Feb. 28, 2019.*

*\*Original authority: 643.050, RSMo, 1965, amended 1972, 1992, 1993, 1995, 2011.*

### 10 CSR 10-6.300 Conformity of General Federal Actions to State Implementation Plans

*(Rescinded March 30, 2022)*

*AUTHORITY: section 643.050, RSMo 2016. Original rule filed Oct. 4, 1994, effective May 28, 1995. Amended: Filed Jan. 30, 1996, effective Sept. 30, 1996. Amended: Filed Feb. 9, 2007, effective Sept. 30, 2007. Amended: Filed Jan. 5, 2011, effective Aug. 30, 2011. Amended: Filed May 9, 2018, effective Feb. 28, 2019. Rescinded: Filed July 9, 2021, effective March 30, 2022.*

### 10 CSR 10-6.310 Restriction of Emissions From Municipal Solid Waste Landfills

*PURPOSE: This rule is part of a Clean Air Act Section 111(d) State Plan. The rule allows Missouri to take delegation and enforcement authority of the federal requirements for affected facilities in Missouri. The requirements in this rule are identical to the federal requirements. This rule requires owners or operators of municipal solid waste landfills to report their landfill's design capacity and non-methane organic compound (NMOC) emissions. Landfills having design capacities and NMOC emission rates above the*



regulatory cutoff must design, install, and operate a gas collection and control system.

*PUBLISHER'S NOTE: The secretary of state has determined that publication of the entire text of the material that is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

(1) Applicability.

(A) This rule applies to each municipal solid waste (MSW) landfill that has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition, and that commenced construction, reconstruction, or modification on or before July 17, 2014. Landfills that commenced construction, reconstruction, or modification after July 17, 2014, are subject to the requirements of the Environmental Protection Agency's New Source Performance Standard for Municipal Solid Waste Landfills 40 CFR 60, Subpart XXX.

(B) Physical or operational changes made to an existing MSW landfill solely to comply with this rule are not considered construction, reconstruction, or modification and do not subject an existing MSW landfill to the requirements of 40 CFR 60, Subpart XXX.

(C) MSW landfills covered by 10 CSR 10-5.490 are exempt from this rule.

(2) Definitions. The provisions of 40 CFR 62.16730, promulgated as of July 1, 2021, including the revision published at 87 FR 8203 (effective February 14, 2022), are hereby incorporated by reference in this rule, as published by the U.S. Government Publishing Office available at <https://bookstore.gpo.gov/> or for mail orders, print and fill out an order form online and mail to: U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000. This rule does not incorporate any subsequent amendments or additions.

(3) General Provisions. The provisions of 40 CFR 62.16711(e) and (f), 40 CFR 62.16712 through 62.16716, 40 CFR 62.16720 through 62.16722, and 40 CFR 62.16728, promulgated as of July 1, 2021, including the revision published at 87 FR 8203 (effective February 14, 2022), are hereby incorporated by reference in this rule, as published by the U.S. Government Publishing Office available at <https://bookstore.gpo.gov/> or for mail orders, print and fill out an order form online and mail to: U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000. This rule does not incorporate any subsequent amendments or additions. Owners and operators of MSW landfills subject to this rule must comply with the following:

(A) Title V operating permit requirements – 40 CFR 62.16711(e);

(B) Exemptions for Part 70 operating permit requirements for closed landfills – 40 CFR 62.16711(f);

(C) Compliance schedule and increments of progress – 40 CFR 62.16712;

(D) Standards for municipal solid waste landfill emissions – 40 CFR 62.16714;

(E) Operational standards for collection and control systems – 40 CFR 62.16716;

(F) Compliance provisions – 40 CFR 62.16720;

(G) Monitoring of operations – 40 CFR 62.16722; and

(H) Specifications for active collection systems – 40 CFR 62.16728.

(4) Reporting and Record Keeping. The provisions of 40 CFR 62.16711(g) and (h), and 40 CFR 62.16724 through 62.16726, promulgated as of July 1, 2021, are hereby incorporated by reference in this rule, as published by the U.S. Government Publishing Office available at <https://bookstore.gpo.gov/> or for mail orders, print and fill out an order form online and mail to: U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000. This rule does not incorporate any subsequent amendments or additions. Owners and operators of MSW landfills subject to this rule must comply with the following:

(A) Reporting guidelines – 40 CFR 62.16724;

(B) Reporting Exemptions –

1. Exemptions for reporting requirements for closed landfills – 40 CFR 62.16711(g); and

2. Exemptions for reporting requirements for legacy controlled landfills – 40 CFR 62.16711(h); and

(C) Recordkeeping guidelines – 40 CFR 62.16726.

(5) Test Methods. The provisions of 40 CFR 62.16718, promulgated as of July 1, 2021, are hereby incorporated by reference in the rule, as published by the U.S. Government Publishing Office available at <https://bookstore.gpo.gov/> or for mail orders, print and fill out order form online and mail to: U.S. Government Publishing Office, PO Box 979050, St. Louis, MO 63197-9000. This rule does not incorporate any subsequent amendments or additions.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed Jan. 14, 1997, effective Sept. 30, 1997. Amended: Filed Oct. 7, 1999, effective July 30, 2000. Amended: Filed Sept. 26, 2011, effective May 30, 2012. Amended: Filed Oct. 29, 2021, effective July 30, 2022.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

**10 CSR 10-6.320 Sales Tax Exemption**

(Rescinded September 30, 2009)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed Dec. 13, 1996, effective July 30, 1997. Amended: Filed May 24, 2002, effective March 30, 2003. Rescinded: Filed Dec. 17, 2008, effective Sept. 30, 2009.*

**10 CSR 10-6.330 Restriction of Emissions From Batch-Type Charcoal Kilns**

*PURPOSE: This regulation establishes emission limits for batch-type charcoal kilns based on operational parameters that reflect the Best Available Control Technology (BACT) for this industry as of August 20, 1997.*

(1) Applicability.

(A) This regulation applies to all batch-type charcoal kilns throughout the entire state of Missouri.

(B) In the event that other rules in the *Code of State Regulations* are also applicable to batch-type charcoal kilns, the more stringent rule requirement applies.

(2) Definitions.

(A) Batch-type charcoal kiln – Charcoal kilns that manufacture



charcoal with a batch process rather than a continuous process. The batch-type charcoal kiln process typically includes loading wood, sealing the kiln, igniting the wood, and controlled burning of the wood to produce charcoal which is unloaded.

(B) Burn cycle – The burn cycle for a charcoal kiln begins at the time that a batch of wood is initially lit and ends when the burn for that batch is completed and the kiln is sealed. The burn cycle does not include cool down time.

(C) Charcoal kiln – Any closed structure used to produce charcoal by controlled burning (pyrolysis) of wood. Retorts and furnaces used for charcoal production are not charcoal kilns.

(D) Charcoal kiln control system – A combination of an emission control device and connected charcoal kiln(s).

(E) Emission control device – Any device used to reduce contaminant emissions into the air. Thermal oxidizers or afterburners are often used on charcoal kilns for burning exhaust gases to reduce particulate matter, carbon monoxide, and volatile organic compound emissions.

(F) Fill capacity – The maximum amount of wood that can be properly loaded into a charcoal kiln prior to the burn cycle.

(G) Installation – All source operations including activities that result in fugitive emissions, that belong to the same industrial grouping (that have the same two (2)-digit code as described in the Standard Industrial Classification Manual, 1987), and any marine vessels while docked at the installation, located on one (1) or more contiguous or adjacent properties and under the control of the same person (or persons under common control).

(H) Opacity – The extent to which airborne material obstructs the transmission of incident light and obscures the visual background. Opacity is stated as a percentage of light obstructed and can be measured by a continuous opacity monitoring system or a trained observer. An opacity of one hundred percent (100%) represents a condition in which no light is transmitted and the background is completely obscured.

(I) Particulate matter – Particulate matter emissions from charcoal kilns and charcoal kiln control systems consists of all particulate matter including condensables.

(J) Residence time – Period of time in which gas in a thermal oxidizer, incinerator, or afterburner is exposed to heat and oxygen at a specified temperature in order to destroy pollutants present in the gas.

(K) Treated wood – Wood that has been subjected to a chemical process or application.

(L) Volatile organic compounds (VOCs) – See definition in 10 CSR 10-6.020.

### (3) General Provisions.

#### (A) Restriction of Emissions.

1. No charcoal kiln control system shall emit visible emissions greater than ten percent (10%) opacity.

2. No charcoal kiln control system shall emit more than the following emissions:

A. 1.5 pounds per hour of particulate matter;

B. Either 0.24 pounds per hour volatile organic compounds (VOCs) or the emission rate equivalent to ninety-nine percent (99%) VOC control efficiency, whichever results in a lower emission rate; and

C. 1.75 pounds per hour of carbon monoxide (CO).

3. Charcoal kiln control systems shall be maintained to assure that no visible fugitive emissions result from equipment cracks or door seals.

#### (B) Operating Requirements.

1. No charcoal kiln shall be operated without an emission

control device installed and operated to meet the requirements of this rule and other applicable state and federal rules.

2. Each emission control device shall have a sight glass or other viewing portal installed in the burning chamber such that the burn can be visually monitored.

3. All charcoal kiln emissions shall be ducted to an operating emission control device throughout the entire burn cycle.

4. Emission control devices shall be equipped with automatic temperature control systems which are set such that gas streams are heated and maintained according to one (1) of the following sets of conditions:

A. At a nominal operating temperature of sixteen hundred degrees Fahrenheit (1600 °F), with a fifteen hundred twenty degree Fahrenheit (1520 °F) minimum temperature allowed, for a minimum residence time of 1.7 seconds; or

B. At an alternative operating temperature and residence time determined by performance testing, during which the following conditions are met:

(I) All emission limit requirements of paragraphs (3)(A)1. and 2. of this rule are met;

(II) The CO control efficiency is greater than or equal to ninety-nine percent (99%); and

(III) The department has validated the performance test results that the alternative operating temperature and residence time are based on. The operating requirements in subparagraph (3)(B)4.A. of this rule apply until these performance test results have been validated.

5. All charcoal kiln control systems shall be operated using the same fuel(s) as used during performance testing.

6. No charcoal kiln shall burn treated wood at any time.

7. Rule 10 CSR 10-6.050 Start-up, Shutdown, and Malfunction Conditions shall only be applicable to charcoal kiln control systems with regard to the malfunction provision, and not with regard to start-up and shutdown.

8. All charcoal kiln control systems shall be operated and maintained in accordance with the department approved standard operating procedures manual described in subsection (3)(D) of this rule and the department approved maintenance practices manual described in subsection (3)(E) of this rule.

9. All charcoal kiln control systems that have been performance tested shall continuously display and record the emission control device operating temperature with the permanently installed temperature recording device at all times of operation.

(C) Each charcoal kiln shall have a unique identification number permanently affixed to the exterior of the charcoal kiln structure.

(D) The owner or operator of charcoal kilns at charcoal manufacturing installations shall develop, submit for department approval, and establish a standard operating procedures manual for each charcoal manufacturing installation. At a minimum, this manual shall describe –

1. Safe charcoal kiln operation;

2. Bundle stacking (including adequate platform of logs to enhance combustion);

3. Use of properly seasoned wood (cover mixing of wood species, if applicable);

4. Control of fugitive emissions from each charcoal kiln (e.g. “mudding” cracks and doors) and each emission control device; and

5. Methods of reporting and recordkeeping under section (4) of this rule.

(E) The owner or operator of charcoal kilns shall develop, submit for department approval, and establish a maintenance



practices manual for each charcoal kiln control system. This manual shall be maintained at each site for the specific emission control device(s) installed at the site. At a minimum, this manual shall include:

1. Maintenance of all equipment (e.g. proper cleaning of inlet ports);
2. Measures taken in the event of emission control device failure to minimize emissions (e.g. opening kiln caps and air vents to allow kiln wood to burn down to minimize smoking conditions or shutting all kiln inlets and outlets until all combustion in the chamber is extinguished);
3. Inspections performed and frequency (e.g. daily burner operation); and
4. Methods of reporting and recordkeeping under section (4) of this rule.

**(F) Performance Testing and Compliance Determinations.**

1. For compliance determination, each charcoal kiln control system shall be evaluated as a unit and performance tested for compliance with the emission limit requirements of paragraphs (3)(A)1. and 2. of this rule.

2. All charcoal kiln control system performance tests shall be conducted with each charcoal kiln of the system filled to at least ninety percent (90%) of fill capacity and at the midpoint of burn cycle unless otherwise noted. The midpoint of each charcoal kiln burn cycle shall be no less than forty percent (40%), and no more than sixty percent (60%) of the total burn cycle.

3. Emission control device fuel type(s) and quantity(ies) used during the performance test shall be recorded.

4. All performance test operating temperatures shall be recorded with a continuous recording device that is permanently installed, and the temperature shall be continuously displayed and recorded throughout the entire performance test.

5. Each performance test shall consist of a minimum of three (3) runs for each pollutant specified in paragraph (3)(A)2. of this rule and conducted using the test methods specified in section (5) of this rule. The duration of each test run shall be one (1) hour unless the test method requires a longer duration. Compliance shall not be considered demonstrated until the department has validated performance test results.

6. Compliance determinations for visible fugitive emission requirements of this rule shall use the test method specified in subsection (5)(E) of this rule.

7. The director may allow similar charcoal kiln control system units to operate without the individual performance tests required by paragraph (3)(F)1. if the following conditions are met:

A. Similar units have the same number of charcoal kilns, similar construction, capacities within ten percent (10%) of each other, and similar design;

B. Similar units are controlled by emission control devices with the same construction, the same size, and the same design; and

C. Three (3) separate similar units have successfully demonstrated compliance with the emission limit requirements of paragraphs (3)(A)1. and 2. of this rule.

8. Control efficiency (CE) shall be calculated from performance test data using the following calculation:

$$CE = \left( 1 - \frac{\text{Outlet Emission Rate}}{\text{Inlet Emission Rate}} \right) \times 100$$

9. Any existing charcoal kiln that has been inactive for sixty (60) months or longer shall comply with all federal and state

rules, and obtain a construction permit prior to reactivation.

**(4) Reporting and Record Keeping.**

(A) Owners or operators of all charcoal kilns shall maintain a file on each active charcoal kiln with the following information for a minimum of five (5) years from the date the data was collected:

1. Average annual production (tons of charcoal per charcoal manufacturing installation per year divided by the number of charcoal kilns at the charcoal manufacturing installation);

2. Start-up time (hour and minute) for each burn cycle;

3. Emission control device temperature (in degrees Fahrenheit) throughout each burn cycle shall be measured at a point in the emission control device where gas residence time is no less than the applicable residence time under paragraph (3)(B)4. of this rule;

4. The emission control device temperature shall be continuously displayed and recorded by a continuous recording device;

5. Daily log for each charcoal kiln control system that includes start-up time(s), cool-down time(s), re-light time(s), and inspections performed (e.g. burn chamber);

6. Monthly log for each charcoal kiln control system that includes fuel usage and, where more than one (1) type of fuel is used, fuel types and times of usage;

7. Malfunction log for each charcoal manufacturing installation that includes a description of each malfunction cause, duration, and actions taken to remedy the malfunction; and

8. Performance test reports for all emission control devices tested.

(B) Owners or operators of all charcoal kilns shall provide the department with a list of the identification numbers of active charcoal kilns at each location. If the active status of any charcoal kiln changes, including the construction of new charcoal kilns, the owner or operator shall provide an updated list to the department no later than thirty (30) days after the status change.

(C) All information maintained in the charcoal kiln file shall be made immediately available to Missouri Department of Natural Resources representatives upon request.

**(5) Test Methods.**

(A) Particulate matter emission level testing shall include condensables and use the following methods:

1. Method 1 – Sample and Velocity Traverses for Stationary Sources under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22);

2. Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube) under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22);

3. Method 3 – Gas Analysis for the Determination of Dry Molecular Weight under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22);

4. Method 4 – Determination of Moisture Content in Stack Gases under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22);

5. Method 5 – Determination of Particulate Matter Emissions from Stationary Sources under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22); and

6. Method 202 – Dry Impinger Method for Determining Condensable Particulate Emissions from Stationary Sources under 40 CFR 51, Appendix M as specified in 10 CSR 10-6.030(21).

(B) VOC emission level testing shall use one (1) of the following methods under 40 CFR 60, Appendix A as specified





in 10 CSR 10-6.030(22):

1. Method 18 – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography; or

2. Method 25A – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer.

(C) CO emission level testing shall use Method 10 – Determination of Carbon Monoxide Emissions from Stationary Sources under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22).

(D) Emissions percent opacity testing shall use Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22).

(E) Visible fugitive emissions testing shall use Method 22 – Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares under 40 CFR 60, Appendix A as specified in 10 CSR 10-6.030(22).

*AUTHORITY: sections 643.030, 643.050, 643.075, and 643.078, RSMo 2016.\* Original rule filed Nov. 25, 1997, effective July 30, 1998. Amended: Filed June 21, 2018, effective March 30, 2019. Amended: Filed Aug. 9, 2019, effective May 30, 2020.*

*\*Original authority: 643.030, RSMo 1965; 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011; 643.075, RSMo 1972, amended 1988, 1992, 2015; and 643.078, RSMo 1992, amended 2015.*

#### **10 CSR 10-6.345 Control of NO<sub>x</sub> Emissions From Upwind Sources**

(Rescinded October 30, 2013)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed May 4, 2006, effective Dec. 30, 2006. Rescinded: Filed March 13, 2013, effective Oct. 30, 2013.*

#### **10 CSR 10-6.350 Emission Limitations and Emissions Trading of Oxides of Nitrogen**

(Rescinded September 30, 2018)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed Feb. 15, 2000, effective Sept. 30, 2000. Amended: Filed Dec. 4, 2002, effective Aug. 30, 2003. Amended: Filed Oct. 2, 2006, effective May 30, 2007. Amended: Filed Oct. 24, 2008, effective July 30, 2009. Rescinded: Filed Jan. 4, 2018, effective Sept. 30, 2018.*

#### **10 CSR 10-6.360 Control of NO<sub>x</sub> Emissions From Electric Generating Units and Non-Electric Generating Boilers**

(Rescinded September 30, 2018)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed Feb. 14, 2005, effective Oct. 30, 2005. Amended: Filed Oct. 2, 2006, effective May 30, 2007. Amended: Filed Oct. 24, 2008, effective July 30, 2009. Rescinded: Filed Jan. 4, 2018, effective Sept. 30, 2018.*

#### **10 CSR 10-6.362 Clean Air Interstate Rule Annual NO<sub>x</sub> Trading Program**

(Rescinded January 30, 2019)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed Oct. 2, 2006, effective May 30, 2007. Amended: Filed June 25, 2009, effective Feb. 28, 2010. Rescinded: Filed April 10, 2018, effective Jan. 30, 2019.*

#### **10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NO<sub>x</sub> Trading Program**

(Rescinded January 30, 2019)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed Oct. 2, 2006, effective May 30, 2007. Amended: Filed June 25, 2009, effective Feb. 28, 2010. Rescinded: Filed April 10, 2018, effective Jan. 30, 2019.*

#### **10 CSR 10-6.366 Clean Air Interstate Rule SO<sub>2</sub> Trading Program**

(Rescinded January 30, 2019)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed Oct. 2, 2006, effective May 30, 2007. Amended: Filed June 25, 2009, effective Feb. 28, 2010. Rescinded: Filed April 10, 2018, effective Jan. 30, 2019.*

#### **10 CSR 10-6.368 Control of Mercury Emissions From Electric Generating Units**

(Rescinded May 30, 2013)

*AUTHORITY: section 643.050, RSMo 2000. Original rule filed Oct. 2, 2006, effective May 30, 2007. Rescinded: Filed Aug. 20, 2012, effective May 30, 2013.*

#### **10 CSR 10-6.372 Cross-State Air Pollution Rule NO<sub>x</sub> Annual Trading Program**

*PURPOSE: The purpose of this rule is to have Missouri responsible for the Cross-State Air Pollution Rule (CSAPR) Nitrogen Oxide (NO<sub>x</sub>) Annual Trading Program rather than the U.S. Environmental Protection Agency. This rule also provides the process to allocate allowances to affected units in Missouri for compliance with the CSAPR NO<sub>x</sub> Annual Trading Program. The evidence supporting the need for this rule, per section 536.016, RSMo, is the September 13, 2011, December 16, 2014, March 24, 2015, and February 8, 2018 affected industry meeting summaries.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

##### **(1) Applicability.**

(A) Unless otherwise noted in subsection (1)(B) of this rule, the provisions of 40 CFR 97.402 through 40 CFR 97.435 promulgated as of July 1, 2018 are hereby incorporated by reference as published by the Office of the Federal Register. Copies can be obtained from the U.S. Publishing Office Bookstore, 710 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions.

(B) Exceptions to subsection (1)(A) of this rule are as follows:

1. The following provisions are not adopted by reference in subsection (1)(A) of this rule, and instead are replaced by section (3) of this rule:

A. 40 CFR 97.411(a);



- B. 40 CFR 97.411(b)(1); and
- C. 40 CFR 97.412(a).

2. The following provisions are not adopted by reference in subsection (1)(A) of this rule, nor are they replaced by any provisions in this rule:

- A. Any of the requirements imposed on any unit in Indian country within the borders of any state in the provisions of 40 CFR 97.402 through 40 CFR 97.435;
- B. 40 CFR 97.411(b)(2);
- C. 40 CFR 97.411(c)(5)(iii);
- D. 40 CFR 97.412(b);
- E. 40 CFR 97.421(h); and
- F. 40 CFR 97.421(j).

(2) Definitions.

(A) Definitions for key words and phrases used in this rule may be found in 40 CFR 97.402 and 40 CFR 97.403, as incorporated by reference in subsection (1)(A) of this rule.

(B) Notification – Any action by the director to convey information to affected sources and interested parties. This includes, but is not limited to, public web postings with email alerts.

(C) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions. The general provisions for the Cross-State Air Pollution Rule (CSAPR) Nitrogen Oxide (NO<sub>x</sub>) Annual Trading Program may be found in 40 CFR 97.404 through 40 CFR 97.428, which, unless listed in subsection (1)(B) of this rule, are incorporated by reference in subsection (1)(A) of this rule. Subsections (3)(A) and (3)(B) of this rule replace the provisions of 40 CFR 97.411(a), 40 CFR 97.411(b)(1) and 40 CFR 97.412(a) as incorporated by reference in subsection (1)(A) of this rule.

(A) Existing Units.

1. Annual Submittal. The director must submit to the U.S. Environmental Protection Agency (EPA), in a format prescribed by the administrator, the CSAPR NO<sub>x</sub> Annual allowances listed in Table I taking into account any modifications necessary in accordance with paragraph (3)(A)2. of this rule. This submittal must meet the following schedule:

A. By June 1, 2016, the director will submit to EPA allowances for CSAPR NO<sub>x</sub> Annual units for the control periods in 2017 and 2018;

B. By June 1, 2017, the director will submit to EPA allowances for CSAPR NO<sub>x</sub> Annual units for the control periods in 2019 and 2020;

C. By June 1, 2018, the director will submit to EPA allowances for CSAPR NO<sub>x</sub> Annual units for the control periods in 2021 and 2022; and

D. By June 1, 2019, and June 1 of each year thereafter, the director will submit to EPA allowances for CSAPR NO<sub>x</sub> Annual units for the control periods in the fourth year after the year in which the submission is made.

2. Non-Operating Units. If a unit in Table I of this rule does not operate during two (2) consecutive control periods after 2014, the submittal made under paragraph (3)(A)1. of this rule will show zero (0) CSAPR NO<sub>x</sub> Annual allowances for such unit for the control period in the fifth year after these two (2) such years and in each year after that fifth year. All CSAPR NO<sub>x</sub> Annual allowances that would otherwise have been allocated to such unit will be allocated to the new unit set-aside for the state for the respective years involved. If this subsection is applicable, any resulting changes to the submittal under paragraph (3)(A)1. of this rule will be determined in accordance

with the following:

A. Every year, the director will review the operation of each unit listed in Table I and issue a notification that lists any unit in Table I that has not operated during two (2) consecutive control periods after 2014. Any notification made under this subparagraph will specify the first year in which allowances listed in Table I will be terminated for the applicable unit(s) under paragraph (3)(A)2. of this rule;

B. For each notification in subparagraph (3)(A)2.A. of this rule, the director will provide an opportunity for submission of objections to the units referenced in such notice that must be submitted by the deadline specified in such notification in order to be considered; and

C. If there are objections, the director will review them and issue a notification responding to objections received along with any adjustments made to the list.



Table I

Source Name	Source ID	Unit ID	CSAPR NO <sub>x</sub> Annual unit allowances (tons) for 2017 and thereafter
Asbury	2076	1	884
Audrain Power Plant	55234	CT1	2
Audrain Power Plant	55234	CT2	2
Audrain Power Plant	55234	CT3	2
Audrain Power Plant	55234	CT4	2
Audrain Power Plant	55234	CT5	1
Audrain Power Plant	55234	CT6	1
Audrain Power Plant	55234	CT7	1
Audrain Power Plant	55234	CT8	1
Blue Valley	2132	3	126
Chamois Power Plant	2169	2	248
Chillicothe	2122	GT1A	2
Chillicothe	2122	GT1B	0
Chillicothe	2122	GT2A	0
Chillicothe	2122	GT2B	0
Columbia	2123	6	22
Columbia	2123	7	60
Columbia	2123	8	0
Columbia Energy Center (MO)	55447	CT01	1
Columbia Energy Center (MO)	55447	CT02	2
Columbia Energy Center (MO)	55447	CT03	1
Columbia Energy Center (MO)	55447	CT04	1
Dogwood Energy Facility	55178	CT-1	33
Dogwood Energy Facility	55178	CT-2	30
Empire District Elec Co Energy Ctr	6223	1	1
Empire District Elec Co Energy Ctr	6223	2	2
Empire District Elec Co Energy Ctr	6223	3A	11
Empire District Elec Co Energy Ctr	6223	3B	11
Empire District Elec Co Energy Ctr	6223	4A	12
Empire District Elec Co Energy Ctr	6223	4B	12
Essex Power Plant	7749	1	8
Fairgrounds	2082	CT01	0
Greenwood Energy Center	6074	1	6
Greenwood Energy Center	6074	2	4
Greenwood Energy Center	6074	3	6
Greenwood Energy Center	6074	4	8
Hawthorn	2079	5A	2,445
Hawthorn	2079	6	1
Hawthorn	2079	7	7
Hawthorn	2079	8	8
Hawthorn	2079	9	21
Higginsville Municipal Power Plant	2131	4A	2
Higginsville Municipal Power Plant	2131	4B	0
Holden Power Plant	7848	1	5
Holden Power Plant	7848	2	6
Holden Power Plant	7848	3	5
Howard Bend	2102	CT1A	0
Howard Bend	2102	CT1B	0



Iatan	6065	1	3,094
James River	2161	GT1	7
James River	2161	GT2	13
James River	2161	3	207
James River	2161	4	235
James River	2161	5	435
John Twitty Energy Center	6195	1	801
John Twitty Energy Center	6195	CT1A	1
John Twitty Energy Center	6195	CT1B	1
John Twitty Energy Center	6195	CT2A	1
John Twitty Energy Center	6195	CT2B	1
Labadie	2103	1	2,321
Labadie	2103	2	2,495
Labadie	2103	3	2,677
Labadie	2103	4	2,613
Lake Road	2098	6	414
Lake Road	2098	GT5	2
McCartney Generating Station	7903	MGS1A	10
McCartney Generating Station	7903	MGS1B	10
McCartney Generating Station	7903	MGS2A	10
McCartney Generating Station	7903	MGS2B	10
Meramec	2104	1	646
Meramec	2104	2	609
Meramec	2104	3	1,075
Meramec	2104	4	1,499
Meramec	2104	CT01	0
Meramec	2104	CT2A	0
Meramec	2104	CT2B	0
Mexico	6650	CT01	0
Moberly	6651	CT01	0
Montrose	2080	1	725
Montrose	2080	2	710
Montrose	2080	3	746
Moreau	6652	CT01	0
New Madrid Power Plant	2167	1	2,276
New Madrid Power Plant	2167	2	2,172
Nodaway Power Plant	7754	1	4
Nodaway Power Plant	7754	2	5
Northeast Generating Station	2081	11	0
Northeast Generating Station	2081	12	0
Northeast Generating Station	2081	13	0
Northeast Generating Station	2081	14	0
Northeast Generating Station	2081	15	0
Northeast Generating Station	2081	16	0
Northeast Generating Station	2081	17	1
Northeast Generating Station	2081	18	1
Peno Creek Energy Center	7964	CT1A	11
Peno Creek Energy Center	7964	CT1B	10
Peno Creek Energy Center	7964	CT2A	10
Peno Creek Energy Center	7964	CT2B	9
Peno Creek Energy Center	7964	CT3A	11
Peno Creek Energy Center	7964	CT3B	11
Peno Creek Energy Center	7964	CT4A	10
Peno Creek Energy Center	7964	CT4B	10
Ralph Green Station	2092	3	1
Rush Island	6155	1	2,086



Rush Island	6155	2	2,106
Sibley	2094	1	222
Sibley	2094	2	219
Sibley	2094	3	1,400
Sikeston	6768	1	1,268
Sioux	2107	1	1,874
Sioux	2107	2	1,690
South Harper Peaking Facility	56151	1	15
South Harper Peaking Facility	56151	2	19
South Harper Peaking Facility	56151	3	23
St. Francis Power Plant	7604	1	31
St. Francis Power Plant	7604	2	29
State Line (MO)	7296	1	8
State Line (MO)	7296	2-1	57
State Line (MO)	7296	2-2	59
Thomas Hill Energy Center	2168	MB1	829
Thomas Hill Energy Center	2168	MB2	1,296
Thomas Hill Energy Center	2168	MB3	2,674
Viaduct	2096	CT01	0

Total 45,818

Note: Being included or excluded on the list of sources in Table I does not constitute a determination that such source is or is not a CSAPR NO<sub>x</sub> Annual unit. The determination of applicability for CSAPR NO<sub>x</sub> Annual units is in 40 CFR 97.404 as incorporated by reference in subsection (1)(A) of this rule.



**(B) New Units.**

1. Annual Submittal. For the CSAPR NO<sub>x</sub> Annual control period in 2017 and each control period thereafter, the director must submit to EPA, in a format prescribed by the administrator, the CSAPR NO<sub>x</sub> Annual allowances as determined under this subsection by July 1 of the applicable control period.

**2. New Unit Set-Asides.**

A. Allowance Calculation. Every year, the director will calculate the CSAPR NO<sub>x</sub> Annual allowance allocation to each CSAPR NO<sub>x</sub> Annual unit in a state, in accordance with subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule, for the control period in the year of the applicable submittal deadline under paragraph (3)(B)1. of this rule. Once the calculations are complete, the director will contact all facilities that will receive allocations under subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule for the control period in the year of the applicable submittal deadline under paragraph (3)(B)1. of this rule to confirm that the calculations were performed in accordance with this rule, and make adjustments to the calculations, if necessary.

B. Excess Allowances. If the new unit set-aside for the control period has any CSAPR NO<sub>x</sub> Annual allowances remaining after the calculations performed under subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule have been completed, then allowances will be calculated in accordance with subparagraph (3)(B)3.I. of this rule.

C. Industry Requests for Excess Allowances. If a facility owner, operator, or designated representative wishes to receive allowances in accordance with subparagraph (3)(B)3.I. of this rule, for any control period, then by April 5 of the applicable control period, the facility owner, operator, or designated representative must submit information to the director confirming that a CSAPR NO<sub>x</sub> Annual unit commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period. The submittal must also include the calculation of eligible allowances for use in subparagraph (3)(B)3.I. of this rule, for each CSAPR NO<sub>x</sub> Annual unit that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period.

(I) The calculation of eligible allowances must be in accordance with part (3)(B)3.I.(III) of this rule in order for such units to be eligible to receive any allowances in accordance with subparagraph (3)(B)3.I. of this rule.

(II) Each year, the director will review any submissions made in accordance with this paragraph to confirm that units identified in the submissions are CSAPR NO<sub>x</sub> Annual units that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period. The director will also confirm that the submission includes the correct calculations for eligible allowances in accordance with part (3)(B)3.I.(III) of this rule. If, during the review, the director identifies any discrepancies with the identified units or the calculations in a submission made in accordance with this paragraph, the director may request additional information from the facility owner, operator, or designated representative that made the submission. If additional information is requested, the facility owner, operator, or designated representative must provide the requested information by the deadline specified in the information request; otherwise, units identified in such submission will not be eligible for allowances in accordance with subparagraph (3)(B)3.I. of this rule for the applicable control period.

D. Public Notification. The director will determine the CSAPR NO<sub>x</sub> Annual allowance allocation to each CSAPR NO<sub>x</sub> Annual unit in accordance with subparagraphs (3)(B)3.I., (3)(B)3.J., and (3)(B)3.L. of this rule and 40 CFR 97.406(b)(2) and 40 CFR 97.430 through 40 CFR 97.435 as incorporated by reference in subsection (1)(A) of this rule. By June 1 of each year, the director will issue a notification making available the results of all allowance determinations from the new unit set-aside for the control period in which the notification is made.

(I) For each notification in part (3)(B)2.D. of this rule, the director will provide an opportunity for submission of objections to the calculations referenced in such notice.

(II) If there are objections, the director will review them and provide notification stating the outcome.

E. Allowance Changes. If any CSAPR NO<sub>x</sub> Annual allowances are added to the new unit set-aside after submittals per subparagraph (3)(B)2.C. of this rule, the director will issue additional notifications, as deemed appropriate, of the allocation of such CSAPR NO<sub>x</sub> Annual allowances in accordance with subparagraph (3)(B)3.J. of this rule.

3. New Unit Annual Allowance Allocation Methodology. For each control period in 2017 and thereafter and for the CSAPR NO<sub>x</sub> Annual units in Missouri, the director will allocate CSAPR NO<sub>x</sub> Annual allowances to the CSAPR NO<sub>x</sub> Annual units as follows:

A. Units Eligible to Receive Allowances. The CSAPR NO<sub>x</sub> Annual allowances will be allocated to the following CSAPR NO<sub>x</sub> Annual units, except as provided in subparagraph (3)(B)3.J. of this rule:

(I) CSAPR NO<sub>x</sub> Annual units that are not listed in Table I in paragraph (3)(A)2. of this rule;

(II) CSAPR NO<sub>x</sub> Annual units whose allocation of an amount of CSAPR NO<sub>x</sub> Annual allowances for such control period listed in Table I in paragraph (3)(A)2. of this rule is covered by 40 CFR 97.411(c)(2) or (3) as incorporated by reference in subsection (1)(A) of this rule;

(III) CSAPR NO<sub>x</sub> Annual units that are listed in Table I in paragraph (3)(A)2. of this rule and the allocation to such unit(s) is terminated for the applicable control period pursuant to paragraph (3)(A)2. of this rule, and that operate during the control period immediately preceding such control period; or

(IV) For purposes of subparagraph (3)(B)3.I. of this rule, CSAPR NO<sub>x</sub> Annual units under 40 CFR 97.411(c)(1)(ii) as incorporated by reference in subsection (1)(A) of this rule whose allocation of an amount of CSAPR NO<sub>x</sub> Annual allowances for such control period under paragraph (3)(B)2. of this rule is covered by 40 CFR 97.411(c)(2) or (3) as incorporated by reference in subsection (1)(A) of this rule;

B. Total Allowances Available. The director will establish a separate new unit set-aside for the state for each such control period. Each such new unit set-aside will be allocated CSAPR NO<sub>x</sub> Annual allowances in an amount equal to the difference between the Missouri CSAPR NO<sub>x</sub> Annual trading budget for 2017 and thereafter, as set forth in 40 CFR 97.410(a), as incorporated by reference in subsection (1)(A) of this rule and the total number of allowances allocated in accordance with paragraph (3)(A)1. of this rule for such control period. The new unit set-aside will be allocated additional CSAPR NO<sub>x</sub> Annual allowances (if any) in accordance with paragraph (3)(A)2. of this rule and 40 CFR 97.411(c)(5) as incorporated by reference in subsection (1)(A) of this rule;

C. Eligible Control Periods. The director will determine, for each CSAPR NO<sub>x</sub> Annual unit described in subparagraph (3)(B)3.A. of this rule, an allocation of CSAPR NO<sub>x</sub> Annual allowances for the later of the following control periods and for



each subsequent control period:

(I) The control period in 2017;

(II) The first control period after the control period in which the CSAPR NO<sub>x</sub> Annual unit commences commercial operation;

(III) For a unit described in part (3)(B)3.A.(II) of this rule, the first control period in which the CSAPR NO<sub>x</sub> Annual unit operates in the state after operating in another jurisdiction and for which the unit is not already allocated one (1) or more CSAPR NO<sub>x</sub> Annual allowances; and

(IV) For a unit described in part (3)(B)3.A.(III) of this rule, the first control period after the control period in which the unit resumes operation, or the first control period in which the allocation for such unit listed in Table I in paragraph (3)(A)2. of this rule is terminated pursuant to paragraph (3)(A)2. of this rule, whichever is later;

D. Allocations. The allocation to each CSAPR NO<sub>x</sub> Annual unit described in parts (3)(B)3.A.(I) through (3)(B)3.A.(III) of this rule and for each control period described in subparagraph (3)(B)3.C. of this rule will be an amount equal to the unit's total tons of NO<sub>x</sub> emissions during the immediately preceding control period. The director will adjust the allocation amount in this subparagraph in accordance with subparagraphs (3)(B)3.E. through (3)(B)3.G. and (3)(B)3.L. of this rule;

E. Sum of Allowances. The director will calculate the sum of the CSAPR NO<sub>x</sub> Annual allowances determined for all such CSAPR NO<sub>x</sub> Annual units under subparagraph (3)(B)3.D. of this rule in the state for such control period;

F. Extra Allowance Allocation. If the amount of CSAPR NO<sub>x</sub> Annual allowances in the new unit set-aside for the state for such control period is greater than or equal to the sum under subparagraph (3)(B)3.E. of this rule, then the director will allocate the amount of CSAPR NO<sub>x</sub> Annual allowances determined for each such CSAPR NO<sub>x</sub> Annual unit under subparagraph (3)(B)3.D. of this rule;

G. Insufficient Allowance Allocation. If the amount of CSAPR NO<sub>x</sub> Annual allowances in the new unit set-aside for the state for such control period is less than the sum under subparagraph (3)(B)3.E. of this rule, then the director will allocate to each such CSAPR NO<sub>x</sub> Annual unit the amount of the CSAPR NO<sub>x</sub> Annual allowances determined under subparagraph (3)(B)3.D. of this rule for the unit, multiplied by the amount of CSAPR NO<sub>x</sub> Annual allowances in the new unit set-aside for such control period, divided by the sum under subparagraph (3)(B)3.E. of this rule, and rounded to the nearest allowance;

H. Confirmation of Allowances. The director will contact facilities as described in subparagraph (3)(B)2.A. of this rule to confirm the amount of CSAPR NO<sub>x</sub> Annual allowances allocated under subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule for such control period to each CSAPR NO<sub>x</sub> Annual unit eligible for such allocation;

I. Allowance Calculation for Units That Recently Began Operation. If, after completion of the procedures under subparagraphs (3)(B)3.E. through (3)(B)3.H. of this rule for such control period, any unallocated CSAPR NO<sub>x</sub> Annual allowances remain in the new unit set-aside for the state for such control period, the director will allocate such CSAPR NO<sub>x</sub> Annual allowances as follows:

(I) For any submission made in accordance with subparagraph (3)(B)2.C. of this rule, the submitting facility owner, operator, or designated representative may include the calculation of eligible allowances for such control period as specified in part (3)(B)3.I.(III) of this rule. If such submission is not made or fails to include the calculation of eligible

allowances under this part by the April 5 deadline, or if the facility owner, operator, or designated representative fails to provide additional information requested in accordance with part (3)(B)2.C.(II) of this rule by the applicable deadline, then no allowances will be awarded to such unit in accordance with this subparagraph for such control period;

(II) The director will review submissions made in accordance with subparagraph (3)(B)2.C. of this rule, as specified in part (3)(B)2.C.(II) of this rule and may adjust the units identified in such submission if they are not eligible for allowances under this subparagraph, and the director may also adjust the calculation of eligible allowances included in such submission to ensure they are in accordance with part (3)(B)3.I.(III) of this rule;

(III) The calculation of eligible CSAPR NO<sub>x</sub> Annual allowances for a specific control period for CSAPR NO<sub>x</sub> Annual units that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period must be as follows;

$$EA = \frac{(ER)(HR)(NP_{Cap})(CP_{Tot})(CF)(24 \text{ hours/day})(1,000 \text{ kW/MW}_e)}{(2,000 \text{ lb/ton})(1,000,000 \text{ BTU/mmBTU})}$$

Where:

EA = eligible CSAPR NO<sub>x</sub> Annual Allowances

ER = the unit's permitted emission rate from the unit's construction permit approved under 10 CSR 10-6.060 (lb/mmBTU)

HR = the heat rate efficiency for the generator that the unit serves (BTU/KW-hr)

NP<sub>Cap</sub> = nameplate capacity of the generator that the unit serves (MW<sub>e</sub>)

CP<sub>Tot</sub> = number of days in the control period

CF = the unit's default capacity factor from Table II below

Table II – Default Capacity Factors for New Units

Unit Types	Annual SO <sub>2</sub> & NO <sub>x</sub> Programs
Coal-Fired Steam Boiler	0.85
IGCC (Coal Gasification)	0.74
Oil-Fired Steam Boiler	0.30
Natural Gas-Fired Steam Boiler	0.44
Simple Cycle Combustion Turbine	0.24
Combined Cycle Combustion Turbine	0.66

(IV) The director will determine, for each unit described in subparagraph (3)(B)3.A. of this rule that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period, the positive difference (if any) between the unit's emissions during the previous control period and the amount of eligible CSAPR NO<sub>x</sub> Annual allowances as calculated under part (3)(B)3.I.(III) of this rule;

(V) The director will determine the sum of the positive



differences determined under part (3)(B)3.I.(IV) of this rule;

(VI) If the amount of unallocated CSAPR NO<sub>x</sub> Annual allowances remaining in the new unit set-aside for the state for such control period is greater than or equal to the sum determined under part (3)(B)3.I.(V) of this rule, then the director will allocate the amount of CSAPR NO<sub>x</sub> Annual allowances determined for each such CSAPR NO<sub>x</sub> Annual unit under part (3)(B)3.I.(IV) of this rule; and

(VII) If the amount of unallocated CSAPR NO<sub>x</sub> Annual allowances remaining in the new unit set-aside for the state for such control period is less than the sum under part (3)(B)3.I.(V) of this rule, then the director will allocate to each such CSAPR NO<sub>x</sub> Annual unit the amount of the CSAPR NO<sub>x</sub> Annual allowances determined under part (3)(B)3.I.(IV) of this rule for the unit, multiplied by the amount of unallocated CSAPR NO<sub>x</sub> Annual allowances remaining in the new unit set-aside for such control period, divided by the sum under part (3)(B)3.I.(V) of this rule, and rounded to the nearest allowance;

J. Distribution of Remaining Allocations. If, after completion of the procedures under subparagraphs (3)(B)3.I. and (3)(B)3.L. of this rule for such control period, any unallocated CSAPR NO<sub>x</sub> Annual allowances remain in the new unit set-aside for the state for such control period, the director will allocate to each CSAPR NO<sub>x</sub> Annual unit that is in the state, is allocated an amount of CSAPR NO<sub>x</sub> Annual allowances listed in Table I in paragraph (3)(A)2. of this rule, and continues to be allocated CSAPR NO<sub>x</sub> Annual allowances for such control period in accordance with paragraph (3)(A)2. of this rule, an amount of CSAPR NO<sub>x</sub> Annual allowances equal to the following: the total amount of such remaining unallocated CSAPR NO<sub>x</sub> Annual allowances in such new unit set-aside, multiplied by the unit's allocation listed in Table I in paragraph (3)(A)2. of this rule for such control period, divided by the remainder of the amount of tons in the applicable state NO<sub>x</sub> Annual trading budget minus the amount of tons in such new unit set-aside for the state for such control period, and rounded to the nearest allowance;

K. Public Notification. The director will issue notifications as described in subparagraphs (3)(B)2.D. and (3)(B)2.E. of this rule, of the amount of CSAPR NO<sub>x</sub> Annual allowances allocated under subparagraphs (3)(B)3.B. through (3)(B)3.G., (3)(B)3.I., (3)(B)3.J., and (3)(B)3.L. of this rule for such control period to each CSAPR NO<sub>x</sub> Annual unit eligible for such allocation; and

L. Allocation Tabulations That Exceed or Are Less Than the New Unit Set-Aside.

(I) Notwithstanding the requirements of subparagraphs (3)(B)3.B. through (3)(B)3.K. of this rule, if the calculations of allocations of a new unit set-aside for a control period in a given year under subparagraph (3)(B)3.G. of this rule, subparagraph (3)(B)3.F. and part (3)(B)3.I.(VII) of this rule, or subparagraph (3)(B)3.F., part (3)(B)3.I.(VI), and subparagraph (3)(B)3.J. of this rule would otherwise result in total allocations of such new unit set-aside exceeding the total amount of such new unit set-aside, then the director will adjust the results of the calculations under subparagraph (3)(B)3.G., part (3)(B)3.I.(VII), or subparagraph (3)(B)3.J. of this rule, as applicable, as follows. The director will list the CSAPR NO<sub>x</sub> Annual units in descending order based on the amount of such units' allocations under subparagraph (3)(B)3.G., part (3)(B)3.I.(VII), or subparagraph (3)(B)3.J. of this rule, as applicable, and, in cases of equal allocation amounts, in alphabetical order of the relevant source's name and numerical order of the relevant unit's identification number, and will reduce each unit's allocation under subparagraph (3)(B)3.G., part (3)(B)3.I.(VII), or subparagraph (3)(B)3.J. of this rule, as applicable, by one (1) CSAPR NO<sub>x</sub> Annual allowance (but not below zero (0)) in the order in which the units

are listed and will repeat this reduction process as necessary, until the total allocations of such new unit set-aside equal the total amount of such new unit set-aside.

(II) Notwithstanding the requirements of subparagraphs (3)(B)3.J. and (3)(B)3.K. of this rule, if the calculations of allocations of a new unit set-aside for a control period in a given year under subparagraph (3)(B)3.F., part (3)(B)3.I.(VI), and subparagraph (3)(B)3.J. of this rule would otherwise result in a total allocations of such new unit set-aside less than the total amount of such new unit set-aside, then the director will adjust the results of the calculations under subparagraph (3)(B)3.J. of this rule, as follows. The director will list the CSAPR NO<sub>x</sub> Annual units in descending order based on the amount of such units' allocations under subparagraph (3)(B)3.J. of this rule and, in cases of equal allocation amounts, in alphabetical order of the relevant source's name and numerical order of the relevant unit's identification number, and will increase each unit's allocation under subparagraph (3)(B)3.J. of this rule by one (1) CSAPR NO<sub>x</sub> Annual allowance in the order in which the units are listed and will repeat this increase process as necessary, until the total allocations of such new unit set-aside equal the total amount of such new unit set-aside.

#### (4) Reporting and Record Keeping.

(A) The monitoring, reporting, and record keeping provisions of the CSAPR NO<sub>x</sub> Annual Trading Program may be found in 40 CFR 97.430 through 40 CFR 97.435 as incorporated by reference in subsection (1)(A) of this rule.

(B) The director will maintain CSAPR NO<sub>x</sub> Annual unit allowance records submitted to EPA for each CSAPR NO<sub>x</sub> Annual control period for a minimum of five (5) years.

#### (5) Test Methods. *(Not Applicable)*.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed May 15, 2015, effective Dec. 30, 2015. Amended: Filed June 21, 2018, effective March 30, 2019.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

### **10 CSR 10-6.374 Cross-State Air Pollution Rule NO<sub>x</sub> Ozone Season Group 2 Trading Program**

*PURPOSE: The purpose of this rule is to have Missouri responsible for the Cross-State Air Pollution Rule (CSAPR) Nitrogen Oxide (NO<sub>x</sub>) Ozone Season Group 2 Trading Program rather than the U.S. Environmental Protection Agency. This rule makes no changes to the federal process to allocate allowances to affected units in Missouri for compliance with the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program. The evidence supporting the need for this rule, per section 536.016, RSMo, is the February 8, 2018 affected industry meeting summary.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

#### (1) Applicability.





(A) Unless otherwise noted in subsection (1)(B) of this rule, the provisions of 40 CFR 97.802 through 40 CFR 97.835 promulgated as of July 1, 2018 are hereby incorporated by reference as published by the Office of the Federal Register. Copies can be obtained from the U.S. Publishing Office Bookstore, 710 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions.

(B) Exceptions to subsection (1)(A) of this rule are as follows:

1. Any of the requirements imposed on any unit in Indian country within the borders of any state in the provisions of 40 CFR 97.802 through 40 CFR 97.835;

2. 40 CFR 97.811(b)(2);

3. 40 CFR 97.811(c)(5)(iii);

4. 40 CFR 97.812(b);

5. 40 CFR 97.821(h); and

6. 40 CFR 97.821(j).

(2) Definitions.

(A) Definitions for key words and phrases used in this rule may be found in 40 CFR 97.802 and 40 CFR 97.803 as incorporated by reference in subsection (1)(A) of this rule.

(B) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions. The general provisions for the Cross-State Air Pollution Rule (CSAPR) Nitrogen Oxide (NO<sub>x</sub>) Ozone Season Group 2 Trading Program may be found in 40 CFR 97.804 through 40 CFR 97.828 as incorporated by reference in subsection (1)(A) of this rule.

(4) Reporting and Record Keeping. The monitoring, reporting, and record keeping provisions of the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program may be found in 40 CFR 97.830 through 40 CFR 97.835 as incorporated by reference in subsection (1)(A) of this rule.

(5) Test Methods. (*Not Applicable*).

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed May 15, 2015, effective Dec. 30, 2015. Amended: Filed June 21, 2018, effective March 30, 2019.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

### 10 CSR 10-6.376 Cross-State Air Pollution Rule Annual SO<sub>2</sub> Group 1 Trading Program

*PURPOSE: The purpose of this rule is to have Missouri responsible for the Cross-State Air Pollution Rule (CSAPR) Sulfur Dioxide (SO<sub>2</sub>) Group 1 Trading Program rather than the U.S. Environmental Protection Agency to Missouri. This rule also provides the process to allocate allowances to affected units in Missouri for compliance with the CSAPR SO<sub>2</sub> Group 1 Trading Program. The evidence supporting the need for this rule, per section 536.016, RSMo, is a November 7, 2011 email between Empire District Electric Co. (Empire) and Kansas City Power and Light (KCP&L) and the November 26, 2014, March 24, 2015, and February 8, 2018 affected industry meeting summaries.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this*

*rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

(1) Applicability.

(A) Unless otherwise noted in subsection (1)(B) of this rule, the provisions of 40 CFR 97.602 through 40 CFR 97.635 promulgated as of July 1, 2018 are hereby incorporated by reference as published by the Office of the Federal Register. Copies can be obtained from the U.S. Publishing Office Bookstore, 710 N. Capitol Street NW, Washington, DC 20401. This rule does not incorporate any subsequent amendments or additions.

(B) Exceptions. The following provisions are not adopted by reference in subsection (1)(A) of this rule, nor are they replaced by any provisions in this rule:

1. 40 CFR 97.611(a);

2. 40 CFR 97.611(b)(1);

3. 40 CFR 97.612(a);

4. 40 CFR 97.611(b)(2);

5. 40 CFR 97.611(c)(5)(iii);

6. 40 CFR 97.612(b);

7. 40 CFR 97.621(h); and

8. 40 CFR 97.621(j).

(2) Definitions.

(A) Definitions for key words and phrases used in this rule may be found in 40 CFR 97.602 and 40 CFR 97.603 as incorporated by reference in subsection (1)(A) of this rule.

(B) Notification—Any action by the director to convey information to affected sources and interested parties. This includes, but is not limited to, public web postings with email alerts.

(C) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions. The general provisions for the Cross-State Air Pollution Rule (CSAPR) sulfur dioxide (SO<sub>2</sub>) Group 1 Trading Program may be found in 40 CFR 97.604 through 40 CFR 97.628, which, unless listed in subsection (1)(B) of this rule, are incorporated by reference in subsection (1)(A) of this rule. Subsections (3)(A) and (3)(B) of this rule replace the provisions of 40 CFR 97.611(a), 40 CFR 97.611(b)(1), and 40 CFR 97.612(a) as incorporated by reference in subsection (1)(A) of this rule.

(A) Existing Units.

1. Annual Submittal. The director must submit to the U.S. Environmental Protection Agency (EPA), in a format prescribed by the administrator, the CSAPR SO<sub>2</sub> Group 1 allowances listed in Table I taking into account any modifications necessary in accordance with paragraph (3)(A)2. of this rule. This submittal must meet the following schedule:

A. By June 1, 2016, the director will submit to EPA allowances for CSAPR SO<sub>2</sub> Group 1 units for the control periods in 2017 and 2018;

B. By June 1, 2017, the director will submit to EPA allowances for CSAPR SO<sub>2</sub> Group 1 units for the control periods in 2019 and 2020;

C. By June 1, 2018, the director will submit to EPA allowances for CSAPR SO<sub>2</sub> Group 1 units for the control periods in 2021 and 2022; and

D. By June 1, 2019, and June 1 of each year thereafter, the director will submit to EPA allowances for CSAPR SO<sub>2</sub> Group 1 units for the control periods in the fourth year after the year in



which the submission is made.

2. Non-operating Units. If a unit in Table I of this rule does not operate during two (2) consecutive control periods after 2014, the submittal made under paragraph (3)(A)1. of this rule will show zero (0) CSAPR SO<sub>2</sub> Group 1 SO<sub>2</sub> allowances for such unit for the control period in the fifth year after these two (2) such years and in each year after that fifth year. All CSAPR SO<sub>2</sub> Group 1 allowances that would otherwise have been allocated to such unit will be allocated to the new unit set-aside for the state for the respective years involved. If this subsection is applicable, any resulting changes to the submittal under paragraph (3)(A)1. of this rule will be determined in accordance with the following:

A. Every year, the director will review the operation of each unit listed in Table I and issue a notification that lists any unit in Table I that has not operated during two (2) consecutive control periods after 2014. Any notification made under this subparagraph will specify the first year in which allowances listed in Table I will be terminated for the applicable unit(s) under paragraph (3)(A)2. of this rule;

B. For each notification in subparagraph (3)(A)2.A. of this rule, the director will provide an opportunity for submission of objections to the units referenced in such notice that must be submitted by the deadline specified in such notification in order to be considered; and

C. If there are objections, the director will review them and issue a notification responding to objections received along with any adjustments made to the list.



Table I

Source Name	Source ID	Unit ID	CSAPR SO <sub>2</sub> Group 1 unit allowances (tons) for 2017 and thereafter
Asbury	2076	1	3,180
Audrain Power Plant	55234	CT1	0
Audrain Power Plant	55234	CT2	0
Audrain Power Plant	55234	CT3	0
Audrain Power Plant	55234	CT4	0
Audrain Power Plant	55234	CT5	0
Audrain Power Plant	55234	CT6	0
Audrain Power Plant	55234	CT7	0
Audrain Power Plant	55234	CT8	0
Blue Valley	2132	3	452
Chamois Power Plant	2169	2	893
Chillicothe	2122	GT1A	0
Chillicothe	2122	GT1B	0
Chillicothe	2122	GT2A	1
Chillicothe	2122	GT2B	0
Columbia	2123	6	78
Columbia	2123	7	215
Columbia	2123	8	0
Columbia Energy Center (MO)	55447	CT01	0
Columbia Energy Center (MO)	55447	CT02	0
Columbia Energy Center (MO)	55447	CT03	0
Columbia Energy Center (MO)	55447	CT04	0
Dogwood Energy Facility	55178	CT-1	1
Dogwood Energy Facility	55178	CT-2	1
Empire District Elec Co Energy Ctr	6223	1	0
Empire District Elec Co Energy Ctr	6223	2	0
Empire District Elec Co Energy Ctr	6223	3A	1
Empire District Elec Co Energy Ctr	6223	3B	1
Empire District Elec Co Energy Ctr	6223	4A	1
Empire District Elec Co Energy Ctr	6223	4B	1
Essex Power Plant	7749	1	0
Fairgrounds	2082	CT01	1
Greenwood Energy Center	6074	1	1
Greenwood Energy Center	6074	2	0
Greenwood Energy Center	6074	3	0
Greenwood Energy Center	6074	4	1
Hawthorn	2079	5A	2,643
Hawthorn	2079	6	0
Hawthorn	2079	7	0
Hawthorn	2079	8	0



Hawthorn	2079	9	1
Higginsville Municipal Power Plant	2131	4A	0
Higginsville Municipal Power Plant	2131	4B	0
Holden Power Plant	7848	1	0
Holden Power Plant	7848	2	1
Holden Power Plant	7848	3	0
Howard Bend	2102	CT1A	1
Howard Bend	2102	CT1B	1
Iatan	6065	1	11,133
James River	2161	GT1	0
James River	2161	GT2	0
James River	2161	3	747
James River	2161	4	847
James River	2161	5	1,566
John Twitty Energy Center	6195	1	2,883
John Twitty Energy Center	6195	CT1A	0
John Twitty Energy Center	6195	CT1B	0
John Twitty Energy Center	6195	CT2A	0
John Twitty Energy Center	6195	CT2B	0
Labadie	2103	1	9,056
Labadie	2103	2	9,265
Labadie	2103	3	9,633
Labadie	2103	4	9,929
Lake Road	2098	6	1,490
Lake Road	2098	GT5	2
McCartney Generating Station	7903	MGS1A	0
McCartney Generating Station	7903	MGS1B	0
McCartney Generating Station	7903	MGS2A	0
McCartney Generating Station	7903	MGS2B	0
Meramec	2104	1	2,326
Meramec	2104	2	2,192
Meramec	2104	3	3,869
Meramec	2104	4	5,394
Meramec	2104	CT01	1
Meramec	2104	CT2A	0
Meramec	2104	CT2B	0
Mexico	6650	CT01	1
Moberly	6651	CT01	2
Montrose	2080	1	2,608
Montrose	2080	2	2,555
Montrose	2080	3	2,684
Moreau	6652	CT01	1
New Madrid Power Plant	2167	1	8,190
New Madrid Power Plant	2167	2	7,628
Nodaway Power Plant	7754	1	0
Nodaway Power Plant	7754	2	0
Northeast Generating Station	2081	11	0



Northeast Generating Station	2081	12	0
Northeast Generating Station	2081	13	0
Northeast Generating Station	2081	14	0
Northeast Generating Station	2081	15	0
Northeast Generating Station	2081	16	0
Northeast Generating Station	2081	17	1
Northeast Generating Station	2081	18	0
Peno Creek Energy Center	7964	CT1A	0
Peno Creek Energy Center	7964	CT1B	0
Peno Creek Energy Center	7964	CT2A	0
Peno Creek Energy Center	7964	CT2B	0
Peno Creek Energy Center	7964	CT3A	0
Peno Creek Energy Center	7964	CT3B	0
Peno Creek Energy Center	7964	CT4A	0
Peno Creek Energy Center	7964	CT4B	0
Ralph Green Station	2092	3	0
Rush Island	6155	1	9,492
Rush Island	6155	2	8,700
Sibley	2094	1	799
Sibley	2094	2	788
Sibley	2094	3	5,037
Sikeston	6768	1	4,564
Sioux	2107	1	6,743
Sioux	2107	2	6,083
South Harper Peaking Facility	56151	1	0
South Harper Peaking Facility	56151	2	0
South Harper Peaking Facility	56151	3	0
St. Francis Power Plant	7604	1	1
St. Francis Power Plant	7604	2	1
State Line (MO)	7296	1	0
State Line (MO)	7296	2-1	2
State Line (MO)	7296	2-2	3
Thomas Hill Energy Center	2168	MB1	2,982
Thomas Hill Energy Center	2168	MB2	4,665
Thomas Hill Energy Center	2168	MB3	9,621
Viaduct	2096	CT01	0

Total 160,959

Note: Being included or excluded on the list of sources in Table I does not constitute a determination that such source is or is not a CSAPR SO<sub>2</sub> Group 1 unit. The determination of applicability for CSAPR SO<sub>2</sub> Group 1 units is in 40 CFR 97.604 as incorporated by reference in subsection (1)(A) of this rule.



**(B) New Units.**

1. Annual Submittal. For the CSAPR SO<sub>2</sub> Group 1 control period in 2017 and each control period thereafter, the director must submit to EPA, in a format prescribed by the administrator, the CSAPR SO<sub>2</sub> Group 1 allowances as determined under this subsection by July 1 of the applicable control period.

**2. New unit set-asides.**

A. Allowance Calculation. Every year, the director will calculate the CSAPR SO<sub>2</sub> Group 1 allowance allocation to each CSAPR SO<sub>2</sub> Group 1 unit in a state, in accordance with subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule, for the control period in the year of the applicable submittal deadline under paragraph (3)(B)1. of this rule. Once the calculations are complete, the director will contact all facilities that will receive allocations under subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule for the control period in the year of the applicable submittal deadline under paragraph (3)(B)1. of this rule to confirm that the calculations were performed in accordance with this rule, and make adjustments to the calculations if necessary.

B. Excess Allowances. If the new unit set-aside for the control period has any CSAPR SO<sub>2</sub> Group 1 allowances remaining after the calculations performed under subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule have been completed, then allowances will be calculated in accordance with subparagraph (3)(B)3.I. of this rule.

C. Industry Requests for Excess Allowances. If a facility owner, operator, or designated representative wishes to receive allowances in accordance with subparagraph (3)(B)3.I. of this rule, for any control period, then by April 5 of the applicable control period, the facility owner, operator, or designated representative must submit information to the director confirming that a CSAPR SO<sub>2</sub> Group 1 unit commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period. The submittal must also include the calculation of eligible allowances for use in subparagraph (3)(B)3.I. of this rule, for each CSAPR SO<sub>2</sub> Group 1 unit that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period.

(I) The calculation of eligible allowances must be in accordance with part (3)(B)3.I.(III) of this rule in order for such units to be eligible to receive any allowances in accordance with subparagraph (3)(B)3.I. of this rule.

(II) Each year, the director will review any submissions made in accordance with this paragraph to confirm that units identified in the submissions are CSAPR SO<sub>2</sub> Group 1 units that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period. The director will also confirm that the submission includes the correct calculations for eligible allowances in accordance with part (3)(B)3.I.(III) of this rule. If, during the review, the director identifies any discrepancies with the identified units or the calculations in a submission made in accordance with this paragraph, the director may request additional information from the facility owner, operator, or designated representative that made the submission. If additional information is requested, the facility owner, operator, or designated representative must provide the requested information by the deadline specified in the information request; otherwise, units identified in such submission will not be eligible for allowances in accordance with subparagraph (3)(B)3.I. of this rule for the applicable control period.

D. Public Notification. The director will determine the CSAPR SO<sub>2</sub> Group 1 allowance allocation to each CSAPR SO<sub>2</sub> Group 1 unit in accordance with subparagraphs (3)(B)3.I., (3)(B)3.J., and (3)(B)3.L. of this rule and 40 CFR 97.606(b)(2) and 40 CFR 97.630 through 40 CFR 97.635 as incorporated by reference in subsection (1)(A) of this rule. By June 1 of each year, the director will issue a notification making available the results of all allowance determinations from the new unit set-aside for the control period in which the notification is made.

(I) For each notification in subparagraph (3)(B)2.D. of this rule, the director will provide an opportunity for submission of objections to the calculations referenced in such notice.

(II) If there are objections, the director will review them and provide notification stating the outcome.

E. Allowance Changes. If any CSAPR SO<sub>2</sub> Group 1 allowances are added to the new unit set-aside after submittals per subparagraph (3)(B)2.C. of this rule, the director will issue additional notifications, as deemed appropriate, of the allocation of such CSAPR SO<sub>2</sub> Group 1 allowances in accordance with subparagraph (3)(B)3.J. of this rule.

3. New Unit Annual Allowance Allocation Methodology. For each control period in 2017 and thereafter and for the CSAPR SO<sub>2</sub> Group 1 units in Missouri, the director will allocate CSAPR SO<sub>2</sub> Group 1 allowances to the CSAPR SO<sub>2</sub> Group 1 units as follows:

A. Units Eligible to Receive Allowances. The CSAPR SO<sub>2</sub> Group 1 allowances will be allocated to the following CSAPR SO<sub>2</sub> Group 1 units, except as provided in subparagraph (3)(B)3.J. of this rule:

(I) CSAPR SO<sub>2</sub> Group 1 units that are not listed in Table I in paragraph (3)(A)2. of this rule;

(II) CSAPR SO<sub>2</sub> Group 1 units whose allocation of an amount of CSAPR SO<sub>2</sub> Group 1 allowances for such control period listed in Table I in paragraph (3)(A)2. of this rule is covered by 40 CFR 97.611(c)(2) or (3) as incorporated by reference in subsection (1)(A) of this rule;

(III) CSAPR SO<sub>2</sub> Group 1 units that are listed in Table I in paragraph (3)(A)2. of this rule and the allocation to such unit(s) is terminated for the applicable control period pursuant to paragraph (3)(A)2. of this rule, and that operate during the control period immediately preceding such control period; or

(IV) For purposes of subparagraph (3)(B)3.I. of this rule, CSAPR SO<sub>2</sub> Group 1 units under 40 CFR 97.611(c)(1)(ii) whose allocation of an amount of CSAPR SO<sub>2</sub> Group 1 allowances for such control period under paragraph (3)(B)2. of this rule is covered by 40 CFR 97.611(c)(2) or (3) as incorporated by reference in subsection (1)(A) of this rule;

B. Total Allowances Available. The director will establish a separate new unit set-aside for the state for each such control period. Each such new unit set-aside will be allocated CSAPR SO<sub>2</sub> Group 1 allowances in an amount equal to the difference between the Missouri CSAPR SO<sub>2</sub> Group 1 trading budget for 2017 and thereafter, as set forth in 40 CFR 97.610(a) as incorporated by reference in subsection (1)(A) of this rule, and the total number of allowances allocated in accordance with paragraph (3)(A)1. of this rule for such control period. The new unit set-aside will be allocated additional CSAPR SO<sub>2</sub> Group 1 allowances (if any) in accordance with paragraph (3)(A)2. of this rule and 40 CFR 97.611(c)(5) as incorporated by reference in subsection (1)(A) of this rule;

C. Eligible Control Periods. The director will determine, for each CSAPR SO<sub>2</sub> Group 1 unit described in subparagraph (3)(B)3.A. of this rule, an allocation of CSAPR SO<sub>2</sub> Group 1 allowances for the later of the following control periods and for



each subsequent control period:

(I) The control period in 2017;

(II) The first control period after the control period in which the CSAPR SO<sub>2</sub> Group 1 unit commences commercial operation;

(III) For a unit described in part (3)(B)3.A.(II) of this rule, the first control period in which the CSAPR SO<sub>2</sub> Group 1 unit operates in the state after operating in another jurisdiction and for which the unit is not already allocated one (1) or more CSAPR SO<sub>2</sub> Group 1 allowances; and

(IV) For a unit described in part (3)(B)3.A.(III) of this rule, the first control period after the control period in which the unit resumes operation, or the first control period in which the allocation for such unit listed in Table I in paragraph (3)(A)2. of this rule is terminated pursuant to paragraph (3)(A)2. of this rule, whichever is later;

D. Allocations. The allocation to each CSAPR SO<sub>2</sub> Group 1 unit described in parts (3)(B)3.A.(I) through (3)(B)3.A.(III) of this rule and for each control period described in subparagraph (3)(B)3.C. of this rule will be an amount equal to the unit's total tons of SO<sub>2</sub> emissions during the immediately preceding control period. The director will adjust the allocation amount in this subparagraph in accordance with subparagraphs (3)(B)3.E. through (3)(B)3.G. and (3)(B)3.L. of this rule;

E. Sum of Allowances. The director will calculate the sum of the CSAPR SO<sub>2</sub> Group 1 allowances determined for all such CSAPR SO<sub>2</sub> Group 1 units under subparagraph (3)(B)3.D. of this rule in the state for such control period;

F. Extra Allowance Allocation. If the amount of CSAPR SO<sub>2</sub> Group 1 allowances in the new unit set-aside for the state for such control period is greater than or equal to the sum under subparagraph (3)(B)3.E. of this rule, then the director will allocate the amount of CSAPR SO<sub>2</sub> Group 1 allowances determined for each such CSAPR SO<sub>2</sub> Group 1 unit under subparagraph (3)(B)3.D. of this rule;

G. Insufficient Allowance Allocation. If the amount of CSAPR SO<sub>2</sub> Group 1 allowances in the new unit set-aside for the state for such control period is less than the sum under subparagraph (3)(B)3.E. of this rule, then the director will allocate to each such CSAPR SO<sub>2</sub> Group 1 unit the amount of the CSAPR SO<sub>2</sub> Group 1 allowances determined under subparagraph (3)(B)3.D. of this rule for the unit, multiplied by the amount of CSAPR SO<sub>2</sub> Group 1 allowances in the new unit set-aside for such control period, divided by the sum under subparagraph (3)(B)3.E. of this rule, and rounded to the nearest allowance;

H. Confirmation of Allowances. The director will contact facilities as described in subparagraph (3)(B)2.A. of this rule to confirm the amount of CSAPR SO<sub>2</sub> Group 1 allowances allocated under subparagraphs (3)(B)3.B. through (3)(B)3.G. and (3)(B)3.L. of this rule for such control period to each CSAPR SO<sub>2</sub> Group 1 unit eligible for such allocation;

I. Allowance Calculation for Units That Recently Began Operation. If, after completion of the procedures under subparagraphs (3)(B)3.E. through (3)(B)3.H. of this rule for such control period, any unallocated CSAPR SO<sub>2</sub> Group 1 allowances remain in the new unit set-aside for the state for such control period, the director will allocate such CSAPR SO<sub>2</sub> Group 1 allowances as follows:

(I) For any submission made in accordance with subparagraph (3)(B)2.C. of this rule, the submitting facility owner, operator, or designated representative may include the calculation of eligible allowances for such control period as specified in part (3)(B)3.I.(III) of this rule. If such submission is not made or fails to include the calculation of eligible allowances under this part by the April 5 deadline, or if the

facility owner, operator, or designated representative fails to provide additional information requested in accordance with part (3)(B)2.C.(II) of this rule by the applicable deadline; then no allowances will be awarded to such unit in accordance with this subparagraph for such control period;

(II) The director will review submissions made in accordance with subparagraph (3)(B)2.C. of this rule, as specified in part (3)(B)2.C.(II) of this rule and may adjust the units identified in such submission if they are not eligible for allowances under this subparagraph, and the director may also adjust the calculation of eligible allowances included in such submission to ensure they are in accordance with part (3)(B)3.I.(III) of this rule;

(III) The calculation of eligible CSAPR SO<sub>2</sub> Group 1 allowances for a specific control period for CSAPR SO<sub>2</sub> Group 1 units that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period must be as follows;

$$EA = \frac{(ER)(HR)(NP_{Cap})(CP_{Tot})(CF)(24 \text{ hours/day})(1,000 \text{ kW/MW}_e)}{(2,000 \text{ lb/ton})(1,000,000 \text{ BTU/mmBTU})}$$

Where:

EA = eligible CSAPR SO<sub>2</sub> Group 1 Allowances

ER = the unit's permitted emission rate from the unit's construction permit approved under 10 CSR 10-6.060 (lb/mmBTU)

HR = the heat rate efficiency for the generator that the unit serves (BTU/kW-hr)

NP<sub>Cap</sub> = nameplate capacity of the generator that the unit serves (MWe)

CP<sub>Tot</sub> = number of days in the control period

CF = the unit's default capacity factor from Table II below

Table II – Default Capacity Factors for New Units

Unit Types	Annual SO <sub>2</sub> & NO <sub>x</sub> Programs
Coal-Fired Steam Boiler	0.85
IGCC (Coal Gasification)	0.74
Oil-Fired Steam Boiler	0.30
Natural Gas-Fired Steam Boiler	0.44
Simple Cycle Combustion Turbine	0.24
Combined Cycle Combustion Turbine	0.66

(IV) The director will determine, for each unit described in subparagraph (3)(B)3.A. of this rule that commenced commercial operation during the period starting January 1 of the year before the year of such control period and ending March 31 of the year of such control period, the positive difference (if any) between the unit's emissions during the previous control period and the amount of eligible CSAPR SO<sub>2</sub> Group 1 allowances as calculated under part (3)(B)3.I.(III) of this rule;

(V) The director will determine the sum of the positive differences determined under part (3)(B)3.I.(IV) of this rule;



(VI) If the amount of unallocated CSAPR SO<sub>2</sub> Group 1 allowances remaining in the new unit set-aside for the state for such control period is greater than or equal to the sum determined under part (3)(B)3.I.(V) of this rule, then the director will allocate the amount of CSAPR SO<sub>2</sub> Group 1 allowances determined for each such CSAPR SO<sub>2</sub> Group 1 unit under part (3)(B)3.I.(IV) of this rule; and

(VII) If the amount of unallocated CSAPR SO<sub>2</sub> Group 1 allowances remaining in the new unit set-aside for the state for such control period is less than the sum under part (3)(B)3.I.(V) of this rule, then the director will allocate to each such CSAPR SO<sub>2</sub> Group 1 unit the amount of the CSAPR SO<sub>2</sub> Group 1 allowances determined under part (3)(B)3.I.(IV) of this rule for the unit, multiplied by the amount of unallocated CSAPR SO<sub>2</sub> Group 1 allowances remaining in the new unit set-aside for such control period, divided by the sum under part (3)(B)3.I.(V) of this rule, and rounded to the nearest allowance;

J. Distribution of Remaining Allocations. If, after completion of the procedures under subparagraphs (3)(B)3.I. and (3)(B)3.L. of this rule for such control period, any unallocated CSAPR SO<sub>2</sub> Group 1 allowances remain in the new unit set-aside for the state for such control period, the director will allocate to each CSAPR SO<sub>2</sub> Group 1 unit that is in the state, is allocated an amount of CSAPR SO<sub>2</sub> Group 1 allowances listed in Table I in paragraph (3)(A)2. of this rule, and continues to be allocated CSAPR SO<sub>2</sub> Group 1 allowances for such control period in accordance with paragraph (3)(A)2. of this rule, an amount of CSAPR SO<sub>2</sub> Group 1 allowances equal to the following: the total amount of such remaining unallocated CSAPR SO<sub>2</sub> Group 1 allowances in such new unit set-aside, multiplied by the unit's allocation listed in Table I in paragraph (3)(A)2. of this rule for such control period, divided by the remainder of the amount of tons in the applicable state SO<sub>2</sub> Annual trading budget minus the amount of tons in such new unit set-aside for the state for such control period, and rounded to the nearest allowance;

K. Public Notification. The director will issue notifications as described in subparagraphs (3)(B)2.D. and (3)(B)2.E. of this rule, of the amount of CSAPR SO<sub>2</sub> Group 1 allowances allocated under subparagraphs (3)(B)3.B. through (3)(B)3.G., (3)(B)3.I., (3)(B)3.J., and (3)(B)3.L. of this rule for such control period to each CSAPR SO<sub>2</sub> Group 1 unit eligible for such allocation; and

L. Allocation Tabulations That Exceed or Are Less Than the New Unit Set-Aside.

(I) Notwithstanding the requirements of subparagraphs (3)(B)3.B. through (3)(B)3.K. of this rule, if the calculations of allocations of a new unit set-aside for a control period in a given year under subparagraph (3)(B)3.G. of this rule, subparagraph (3)(B)3.F. and part (3)(B)3.I.(VII) of this rule, or subparagraph (3)(B)3.F., part (3)(B)3.I.(VI), and subparagraph (3)(B)3.J. of this rule would otherwise result in total allocations of such new unit set-aside exceeding the total amount of such new unit set-aside, then the director will adjust the results of the calculations under subparagraph (3)(B)3.G., part (3)(B)3.I.(VII), or subparagraph (3)(B)3.J. of this rule, as applicable, as follows. The director will list the CSAPR SO<sub>2</sub> Group 1 units in descending order based on the amount of such units' allocations under subparagraph (3)(B)3.G., part (3)(B)3.I.(VII), or subparagraph (3)(B)3.J. of this rule, as applicable, and, in cases of equal allocation amounts, in alphabetical order of the relevant source's name and numerical order of the relevant unit's identification number, and will reduce each unit's allocation under subparagraph (3)(B)3.G., part (3)(B)3.I.(VII), or subparagraph (3)(B)3.J. of this rule, as applicable, by one (1) CSAPR SO<sub>2</sub> Group 1 allowance (but not below zero (0)) in the order in which the units are listed and will repeat

this reduction process as necessary, until the total allocations of such new unit set-aside equal the total amount of such new unit set-aside.

(II) Notwithstanding the requirements of subparagraphs (3)(B)3.J. and (3)(B)3.K. of this rule, if the calculations of allocations of a new unit set-aside for a control period in a given year under subparagraph (3)(B)3.F., part (3)(B)3.I.(VI), and subparagraph (3)(B)3.J. of this rule would otherwise result in a total allocations of such new unit set-aside less than the total amount of such new unit set-aside, then the director will adjust the results of the calculations under subparagraph (3)(B)3.J. of this rule, as follows. The director will list the CSAPR SO<sub>2</sub> Group 1 units in descending order based on the amount of such units' allocations under subparagraph (3)(B)3.J. of this rule and, in cases of equal allocation amounts, in alphabetical order of the relevant source's name and numerical order of the relevant unit's identification number, and will increase each unit's allocation under subparagraph (3)(B)3.J. of this rule by one (1) CSAPR SO<sub>2</sub> Group 1 allowance in the order in which the units are listed and will repeat this increase process as necessary, until the total allocations of such new unit set-aside equal the total amount of such new unit set-aside.

#### (4) Reporting and Record Keeping.

(A) The monitoring, reporting, and record keeping provisions of the CSAPR SO<sub>2</sub> Group 1 Trading Program may be found in 40 CFR 97.630 through 40 CFR 97.635 as incorporated by reference in subsection (1)(A) of this rule.

(B) The director will maintain CSAPR SO<sub>2</sub> Group 1 unit allowance records submitted to EPA for each CSAPR SO<sub>2</sub> Group 1 control period for a minimum of five (5) years.

#### (5) Test Methods. *(Not Applicable)*.

*AUTHORITY section 643.050, RSMo 2016.\* Original rule filed May 15, 2015, effective Dec. 30, 2015. Amended: Filed June 21, 2018, effective March 30, 2019. Amended: Filed March 12, 2021, effective Nov. 30, 2021.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

### **10 CSR 10-6.380 Control of NO<sub>x</sub> Emissions From Portland Cement Kilns**

*PURPOSE: This rule reduces emissions of oxides of nitrogen (NO<sub>x</sub>) to ensure compliance with the federal NO<sub>x</sub> control plan to reduce the transport of air pollutants. The rule establishes NO<sub>x</sub> control equipment and NO<sub>x</sub> emission levels for cement kilns. The evidence supporting the need for this proposed rulemaking per section 536.016, RSMo, is the U.S. Environmental Protection Agency NO<sub>x</sub> State Implementation Plan (SIP) Call dated April 21, 2004.*

(1) Applicability. This rule applies to any cement kiln located in the counties of Bollinger, Butler, Cape Girardeau, Carter, Clark, Crawford, Dent, Dunklin, Franklin, Gasconade, Iron, Jefferson, Lewis, Lincoln, Madison, Marion, Mississippi, Montgomery, New Madrid, Oregon, Pemiscot, Perry, Pike, Ralls, Reynolds, Ripley, St. Charles, St. Francois, St. Louis, Ste. Genevieve, Scott, Shannon, Stoddard, Warren, Washington and Wayne counties and the City of St. Louis that –

(A) Is a long dry kiln with an actual process rate of at least twelve tons of clinker produced per hour (12 TPH);

(B) Is a long wet kiln with an actual process rate of at least ten (10) TPH;





(C) Is a preheater kiln with an actual process rate of at least sixteen (16) TPH; or

(D) Is a precalciner or preheater/precalciner kiln with an actual process rate of at least twenty-two (22) TPH.

(2) Definitions.

(A) Clinker—The product of a Portland cement kiln from which finished cement is manufactured by milling and grinding.

(B) Director—Director of the Missouri Department of Natural Resources, or a representative designated to carry out duties as described in 643.060, RSMo.

(C) Long-dry kiln—A kiln fourteen feet (14') or larger in diameter, four hundred feet (400') or greater in length, which employs no preheating of the feed and the inlet feed to the kiln is dry.

(D) Long-wet kiln—A kiln fourteen feet (14') or larger in diameter, four hundred feet (400') or greater in length, which employs no preheating of the feed and the inlet feed to the kiln is a slurry.

(E) Low-NO<sub>x</sub> burners—A type of cement kiln burner (a device that functions as an injector of fuel and combustion air into kiln to produce a flame that burns as close as possible to the center line of the kiln) that has a series of channels or orifices that 1) allow for the adjustment of the volume, velocity, pressure, and/or direction of the air carrying the fuel, known as primary air, into the kiln, and 2) impart high momentum and turbulence to the fuel stream to facilitate mixing of the fuel and secondary air.

(F) Mid-kiln firing—Secondary firing in kiln systems by injecting fuel at an intermediate point in the kiln system using a specially designed fuel injection mechanism for the purpose of decreasing NO<sub>x</sub> emissions through—

1. The burning of part of the fuel at a lower temperature; and

2. The creation of reducing conditions at the point of initial combustion.

(G) Portland cement—A hydraulic cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates, usually containing one (1) or more of the forms of calcium sulfate as an interground addition.

(H) Portland cement kiln—A system, including any solid, gaseous, or liquid fuel combustion equipment, used to calcine and fuse raw materials, including limestone and clay, to produce Portland cement clinker.

(I) Preheater/precalciner kiln—A kiln where the feed to the kiln system is preheated in cyclone chambers and that utilizes a second burner to provide heat for calcination of material prior to the material entering the rotary kiln which forms clinker.

(J) Preheater kiln—A kiln where the feed to the kiln system is preheated in cyclone chambers prior to the final fusion, which forms clinker.

(K) Recoverable fuel—Fuels that have been permitted for use for energy recovery under 10 CSR 10-6.065.

(L) Renewable fuel—Renewable energy resources that include, but are not limited to, solar (photovoltaic), wind, and biomass. Biomass includes, but is not limited to: agricultural crops and crop waste, untreated wood and wood wastes, livestock waste, wastepaper, and organic municipal solid waste.

(3) General Provisions.

(A) An owner or operator of any Portland cement kiln subject to this rule shall not operate the kiln during the period starting May 1 and ending September 30 of each year, unless the kiln is

equipped and operates with one (1) of the following:

1. Low-NO<sub>x</sub> burners;

2. Mid-kiln firing;

3. An alternative control technology that is approved by the director, and incorporated in the federally approved SIP, and is proven to achieve emission reductions of thirty percent (30%) or greater;

4. An emission rate of—

A. For long-wet kilns—6.8 pounds of NO<sub>x</sub> per ton of clinker produced, averaged over the period from May 1 through September 30 of each year;

B. For long-dry kilns—6.0 pounds of NO<sub>x</sub> per ton of clinker produced, averaged over the period from May 1 through September 30 of each year;

C. For preheater kilns—4.1 pounds of NO<sub>x</sub> per ton of clinker produced, averaged over the period from May 1 through September 30 of each year; or

D. For preheater/precalciner kilns—2.7 pounds of NO<sub>x</sub> per ton of clinker produced, averaged over the period from May 1 through September 30 of each year; or

5. The findings of a case-by-case study committed to and conducted by the owner or operator and approved by the director, and incorporated into the federally approved SIP, taking into account energy, environmental, and economic impacts and other costs to determine an emission limitation that is achievable for the installation through application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of NO<sub>x</sub>.

(B) To meet the requirements of paragraph (3)(A)3. or (3)(A)5. of this rule, the owner or operator may take into account as a portion of the NO<sub>x</sub> reductions, physical and quantifiable measures to increase energy efficiency, reduce energy demand, or increase use of renewable or recoverable fuels.

(C) Excess Emissions During Start-Up, Shutdown, or Malfunction. If the owner or operator provides notice of excess emissions pursuant to state rule 10 CSR 10-6.050(3)(B), the director will determine whether the excess emissions are attributable to start-up, shutdown, or malfunction conditions, pursuant to rule 10 CSR 10-6.050(3)(C). If the director determines that the excess emissions are attributable to such conditions, and if such excess emissions cause a kiln to exceed the applicable emission limits in this rule, the director will determine whether enforcement action is warranted, as provided in rule 10 CSR 10-6.050(3)(C). If the director determines that the excess emissions are attributable to a start-up, shutdown, or malfunction condition and does not warrant enforcement action, those emissions would not be included in the calculation of ozone season NO<sub>x</sub> emissions.

(4) Reporting and Record Keeping.

(A) Reporting Requirements. The owner or operator of a kiln subject to this rule shall comply with the following requirements:

1. Owners or operators shall submit to the director the identification number and type of each unit subject to this rule, the name and address of the plant where the unit is located, and the name and telephone number of the person responsible for demonstrating compliance with this rule by May 1 of the same year as the first compliance period;

2. The owner or operator shall submit to the director by October 31 of each year an annual report documenting for that unit—

A. The emissions, in pounds of NO<sub>x</sub> per ton of clinker produced from each affected Portland cement kiln during the



period from May 1 through September 30;

B. The results of any performance testing; and

C. Cement kiln clinker production, in tons, from May 1 through September 30; and

3. If the owner or operator elects to comply with paragraph (3)(A)3. or (3)(A)5. of this rule, the owner or operator will supply the director with a report as specified in the compliance plan by April of the same year as the first compliance period.

(B) Record Keeping Requirements.

1. Any owner or operator of a unit subject to this rule shall produce and maintain records, which shall include, but are not limited to, the results of any initial performance test, the results of any subsequent performance tests, the date, time, and duration of any start-up, shutdown, or malfunction in the operation of any of the cement kilns, or the emissions monitoring equipment, as applicable.

2. If an owner or operator elects to use subsection (3)(B) of this rule as part of the compliance plan, the owner or operator must retain records as agreed to in the approved compliance plan.

3. Daily cement kiln clinker production in tons per day.

4. Any applicable monitoring data.

5. All records shall be retained on-site for a minimum of five (5) years and made available upon request.

(C) Monitoring Requirements.

1. An owner or operator complying with paragraph (3)(A)1. or (3)(A)2. of this rule shall maintain and operate the device according to the manufacturer's specifications as approved by the permitting agency. The monitoring shall –

A. Include parameters indicated in the manufacturer's specifications and recommendations for the low-NO<sub>x</sub> burner or mid-kiln firing system as approved by the permitting agency; and

B. Identify the specific operation conditions to be monitored and correlation between the operating conditions and NO<sub>x</sub> emission rate.

2. An owner or operator complying with paragraph (3)(A)3., (3)(A)4., or (3)(A)5. of this rule shall complete an initial performance test by May 1 of the same year as the first compliance period and subsequent performance tests, on an annual basis, consistent with the requirements of section (5) of this rule.

3. An owner or operator may comply with the requirements in paragraph (4)(C)1. through the use of an alternative compliance method approved by the director and incorporated in the federally approved SIP.

4. Any deviation from the operating conditions or specifications, which result in an increase in NO<sub>x</sub> emissions, established in this paragraph constitute a violation of this rule, unless the owner or operator demonstrates to the satisfaction of the director that the deviation did not result in an increase in NO<sub>x</sub> emissions.

(5) Test Methods. NO<sub>x</sub> emission level testing shall use one (1) of the following methods in 40 CFR 60, Appendix A-4, as specified in 10 CSR 10-6.030(22):

(A) Method 7 – Determination of Nitrogen Oxide Emissions from Stationary Sources;

(B) Method 7A – Determination of Nitrogen Oxide Emissions from Stationary Sources – Ion Chromatographic Method;

(C) Method 7C – Determination of Nitrogen Oxide Emissions from Stationary Sources – Alkaline-Permanganate/Colorimetric Method;

(D) Method 7D – Determination of Nitrogen Oxide Emissions from Stationary Sources – Alkaline-Permanganate/Ion

Chromatographic Method; or

(E) Method 7E – Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure).

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed Feb. 14, 2005, effective Oct. 30, 2005. Amended: Filed May 9, 2018, effective Feb. 28, 2019.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

### **10 CSR 10-6.390 Control of NO<sub>x</sub> Emissions From Large Stationary Internal Combustion Engines**

*PURPOSE: This rule reduces emissions of oxides of nitrogen (NO<sub>x</sub>) to ensure compliance with the federal NO<sub>x</sub> control plan to reduce the transport of air pollutants. This rule establishes emission levels for large stationary internal combustion engines. The evidence supporting the need for this rule, per section 536.016, RSMo, is the U.S. Environmental Protection Agency NO<sub>x</sub> State Implementation Plan (SIP) Call dated April 21, 2004.*

(1) Applicability.

(A) This rule applies to any large stationary internal combustion engine greater than one thousand three hundred (1,300) horsepower located in the counties of Bollinger, Butler, Cape Girardeau, Carter, Clark, Crawford, Dent, Dunklin, Franklin, Gasconade, Iron, Jefferson, Lewis, Lincoln, Madison, Marion, Mississippi, Montgomery, New Madrid, Oregon, Pemiscot, Perry, Pike, Ralls, Reynolds, Ripley, St. Charles, St. Francois, St. Louis, Ste. Genevieve, Scott, Shannon, Stoddard, Warren, Washington, and Wayne and the City of St. Louis that –

1. Emitted greater than one (1) ton per day of oxides of nitrogen (NO<sub>x</sub>) on average during the period from May 1 through September 30 of 1995, 1996, or 1997; or

2. Began operation after September 30, 1997.

(B) Exemptions.

1. Any stationary internal combustion (IC) engine that meets the definition of emergency standby engine in section (2) of this rule, with allowance for up to one hundred (100) hours per calendar year for operation during routine maintenance checks (including readiness testing), is exempt from this rule.

2. Any stationary IC engine that began operation after September 30, 1997, and emits twenty-five (25) tons or less of NO<sub>x</sub> during the period from May 1 through September 30 is exempt from section (3) and subsection (5)(A) of this rule. The owner or operator of an exempt large stationary IC engine must demonstrate compliance with the twenty-five (25) ton exemption threshold using one (1) of the methods in subsection (5)(B) of this rule. This exemption will be based on the previous year NO<sub>x</sub> emissions during the period from May 1 through September 30. If the exemption limit is exceeded, for any reason, the engine will be required to meet the applicable requirements in subsections (3)(A), (3)(B), (3)(C), and (3)(D) of this rule each year thereafter.

(2) Definitions.

(A) Compression ignition – A type of stationary internal combustion engine that is not a spark ignition engine.

(B) Diesel engine – A compression-ignited two (2)- or four (4)-stroke engine in which liquid fuel is injected into the combustion chamber and ignited when the air charge has been compressed to a temperature sufficiently high for auto-ignition.



(C) Dual fuel engine—Compression-ignited stationary internal combustion engine that is capable of burning liquid fuel and gaseous fuel simultaneously.

(D) Emergency standby engine—An internal combustion engine used only when normal electrical power or natural gas service is interrupted or for the emergency pumping of water for either fire protection or flood relief. An emergency standby engine may not be operated to supplement a primary power source when the load capacity or rating of the primary power source has been either reached or exceeded.

(E) Lean-burn engine—Any two (2)- or four (4)-stroke spark-ignited engine with greater than four percent (4%) oxygen in the engine exhaust.

(F) Rich-burn engine—A two (2)- or four (4)-stroke spark-ignited engine where the oxygen content in the exhaust stream before any dilution is one percent (1%) or less measured on a dry basis.

(G) Spark ignition (SI)—relating to either a gasoline-fueled engine or any other type of engine with a spark plug or other sparking device and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel is used for compression ignition and gaseous fuel (typically natural gas) is used as a primary fuel at an annual average ratio of less than two (2) parts diesel fuel to one-hundred (100) parts total fuel on an energy equivalent basis are spark ignition engines.

(H) Stationary internal combustion engine—Internal combustion engine of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from one (1) location to another and remains at a single site at a building, structure, facility, or installation for more than twelve (12) consecutive months. Any engine(s) that replace(s) an engine at a site that is intended to perform the same or similar function as the engine replaced is included in calculating the consecutive time period. Nonroad engines and engines used solely for competition are not stationary IC engines.

(I) Utilization rate—The amount of an engine's capacity reported in horsepower-hours that is utilized.

(J) Definitions of certain terms used in this rule, other than those specified in this rule, may be found in 10 CSR 10-6.020.

### (3) General Provisions.

#### (A) Emission Requirements.

1. For engines emitting more than one (1) ton per day of  $\text{NO}_x$  on average during the period from May 1 through September 30 in 1995, 1996, or 1997—

A. An owner or operator of a large stationary internal combustion engine must use the following calculation to determine the allowable  $\text{NO}_x$  emission rate for each applicable engine and not exceed this emission rate limit for any ozone season thereafter using:

$$\text{ER} = (\text{NO}_{x \text{ act}} / \text{UR}) \times 1.102 \times 10^{-6} \times 0.1$$

where,

ER = the allowable emission rate for each engine in grams per horsepower-hour;

$\text{NO}_{x \text{ act}}$  = the highest actual  $\text{NO}_x$  emissions, reported in tons per control period, for the period from May 1 through September 30 for one of the years 1995, 1996, or 1997 based on the best available emission information for each engine; and

UR = the utilization rate in horsepower-hours during the same period as  $\text{NO}_{x \text{ act}}$ ;

B. In lieu of subparagraph (3)(A)1.A. of this rule, an owner or operator of a large stationary internal combustion engine may choose to establish a facility-wide  $\text{NO}_x$  emissions cap. If the owner or operator commits to comply with this subparagraph rather than subparagraph (3)(A)1.A. of this rule, the owner or operator must submit the following to the director:

(I) The facility-wide  $\text{NO}_x$  emissions from the year of data that would be used in subparagraph (3)(A)1.A. of this rule on a per engine basis;

(II) The number of tons of  $\text{NO}_x$  emission reductions that would be required in subparagraph (3)(A)1.A. of this rule on a per engine basis;

(III) A detailed inventory of all engines being used to comply with the  $\text{NO}_x$  emission cap including the:

(a) Uncontrolled emission rate of all engines at the facility;

(b) Controlled emission rate for all engines being controlled under the  $\text{NO}_x$  emissions cap;

(c) Capacity of each engine at the facility; and

(d) Utilization rate of each engine at the facility; and

(IV) The controlled  $\text{NO}_x$  emissions from the facility during the control period, May 1 through September 30.

2. For engines that began operation after September 1997. An owner or operator of a large stationary internal combustion engine must not operate an engine to exceed the permitted  $\text{NO}_x$  emission rate or the following  $\text{NO}_x$  emission rate, whichever is more stringent:

A. For SI rich-burn engines, 3.0 grams per horsepower-hour;

B. For SI lean-burn engines, 3.0 grams per horsepower-hour;

C. For diesel engines, 2.3 grams per horsepower-hour; or

D. For dual fuel engines, 1.5 grams per horsepower-hour;

(B) Reduced Energy Consumption Option. To meet the requirements of subparagraph (3)(A)1.A. or paragraph (3)(A)2. of this rule, the owner or operator of a large stationary internal combustion engine may take into account, as a portion of the required  $\text{NO}_x$  reductions, physical and quantifiable measures to increase energy efficiency, reduce energy demand, or increase use of renewable fuels for a particular engine.

(C) Monitoring Requirements. The owner or operator of a large stationary internal combustion engine must monitor for compliance in accordance with subsection (5)(A) of this rule.

(D) Excess Emissions During Start-Up, Shutdown, or Malfunction. If the owner or operator provides notice of excess emissions pursuant to state rule 10 CSR 10-6.050(3)(B), the director will determine whether the excess emissions are attributable to start-up, shutdown, or malfunction conditions, pursuant to rule 10 CSR 10-6.050(3)(C).

(4) Reporting and Record Keeping. The owner or operator of a large stationary internal combustion engine subject to this rule or to the exemption in paragraph (1)(B)2. of this rule must comply with the following requirements in this section of the rule:

#### (A) Reporting Requirements.

1. Submit to the director the identification number and type of each engine subject to this rule or to the exemption in paragraph (1)(B)2. of this rule, the name and address of the plant where the engine is located, and the name and telephone number of the person responsible for demonstrating compliance with this rule;



2. Submit a report documenting for each engine the total NO<sub>x</sub> emissions of the first full compliance period from May 1 through September 30 to the director by November 1 of that year; and

3. If an engine is equipped with a continuous emission monitoring system (CEMS), submit an excess emissions monitoring systems performance report, in accordance with the requirements of 40 CFR 60.7(c) and 60.13 as specified in 10 CSR 10-6.070(3)(A)1.; and

**(B) Record-Keeping Requirements.**

1. Maintain all records necessary to demonstrate compliance with this rule for a period of five (5) years at the plant at which the subject engine is located which include the following:

A. Records for engines applying subsection (3)(B) of this rule;

B. Records verifying an engine(s) is subject to paragraph (3)(A)1. of this rule;

C. For engines subject to subparagraph (3)(A)1.B. of this rule, records required by parts (3)(A)1.B.(I) through (3)(A)1.B.(IV) of this rule;

D. Records for engines subject to paragraphs (5)(A)1. and (5)(A)2. of this rule; and

E. Records for engines subject to paragraphs (5)(B)1. through (5)(B)4. of this rule.

2. Make the records available to the director upon request.

3. Maintain records of the following information for each day of the control period the engine is operated:

A. The identification number of each applicable engine and the name and address of the plant where the engine is located;

B. The calendar date of record;

C. The number of hours the engine is operated during each day including start-ups, shutdowns, malfunctions, and the type and duration of maintenance and repair;

D. Where applicable, the date and results of any inspection that affect emissions;

E. Where applicable, a summary of any corrective maintenance taken that affect emissions;

F. Where applicable, the results of all compliance tests; and

G. If an engine is equipped with a CEMS –

(I) The identification of time periods during which NO<sub>x</sub> standards are exceeded, the reason for the exceedance, and action taken to correct the exceedance and to prevent similar future exceedances; and

(II) The identification of the time periods for which operating conditions and pollutant data were not obtained including records for not obtaining sufficient data and a description of the corrective actions taken.

**(5) Test Methods.**

(A) The owner or operator of a large stationary internal combustion engine meeting the applicability requirements of subsection (1)(A) of this rule and not exempt under subsection (1)(B) of this rule, must not operate such equipment unless one (1) of the following is met:

1. When a CEMS is installed which meets the requirements of 40 CFR 60, Appendix B and F as specified in 10 CSR 10-6.030(22) – The CEMS must be used to demonstrate compliance with the applicable emission limit and operated and maintained in accordance with the on-site CEMS requirements; or

2. For an alternate monitoring method consisting of a calculational and record keeping procedure based upon actual NO<sub>x</sub> emissions testing and correlations with operating

parameters, the installation, implementation, and use of such an alternate monitoring method must be approved by the director and the U.S. Environmental Protection Agency (EPA); and incorporated into this rule and the state implementation plan (SIP) prior to implementation. The alternate monitoring method must be operated and maintained in accordance with the approved alternate monitoring plan.

(B) One (1) of the following emissions measurement approaches must be used to provide a demonstration of compliance with the twenty-five (25)-ton exemption threshold for stationary IC engines under paragraph (1)(B)2. of this rule:

1. Certificates of conformity for affected engines confirming compliance with 40 CFR 90, 40 CFR 1048, or 40 CFR 1054 promulgated as of July 1, 2018, and hereby incorporated by reference in this rule, as published by the Office of the Federal Register. Copies can be obtained from the U.S. Publishing Office Bookstore, 710 N. Capitol Street NW, Washington, DC 20401 (This rule does not incorporate any subsequent amendments or additions); and operating the engine according to the manufacturer's specifications;

2. Stack tests as specified in 10 CSR 10-6.030(22);

3. Engine manufacturer technical specification sheets for affected engines; or

4. Other methods, as approved by the director and the EPA; and incorporated into this rule and the SIP prior to implementation. These may include fuel usage calculations, approved engineering calculations, other methods described in permits, or other EPA documentation.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed Feb. 14, 2005, effective Oct. 30, 2005. Amended: Filed Aug. 27, 2009, effective May 30, 2010. Amended: Filed March 13, 2013, effective Oct. 30, 2013. Amended: Filed June 27, 2018, effective March 30, 2019. Amended: Filed Aug. 9, 2019, effective May 30, 2020.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

**10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes**

*PURPOSE: This regulation restricts the emission of filterable particulate matter in the source gas of an operation or activity except where 10 CSR 10-6.405 and/or 10 CSR 10-6.070 would be applied.*

**(1) Applicability.**

(A) This regulation applies to any operation, process, or activity that emits particulate matter.

(B) The provisions of this rule shall not apply to the following:

1. Cotton gins;

2. The grinding, crushing, and classifying operations at a rock quarry;

3. The receiving and shipping of whole grain from or into a railroad or truck transportation source at a grain elevator;

4. Smoke generating devices, as defined in subsection (2)(D) of this rule, when a required permit or a written determination that a permit is not required has been issued or written;

5. Batch-type charcoal kilns required to comply with 10 CSR 10-6.330;

6. The burning of fuel for indirect heating;

7. Fugitive emissions;

8. Emission sources that are exempt from construction permitting under 10 CSR 10-6.061;

9. Emission sources that are permitted by rule under 10



CSR 10-6.062;

10. The burning of refuse;

11. The processing of salvageable material by burning;

12. Emission units that at maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter;

13. The grinding, crushing, and conveying operations at a power plant;

14. Coating operations equipped with a control system designed to control at least ninety-five percent (95%) of the particulate overspray provided the system is operated and maintained in accordance with manufacturers' specifications or comparable maintenance procedures that meet or exceed manufacturers' specifications;

15. Any particulate matter emission unit that is subject to a federally enforceable requirement to install, operate, and maintain a particulate matter control device system that controls at least ninety percent (90%) of particulate matter emissions; and

16. Emission units that at maximum hourly design rate (MHDR) have an uncontrolled potential to emit less than the allowable emissions as calculated in paragraphs (3)(A)1. and (3)(A)2. of this rule.

(C) In the event that other rules in Title 10 *Code of State Regulations* are also applicable to particulate matter emission units, the more stringent requirement shall apply.

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

(3) General Provisions.

(A) Emission Limitations. All applicable sources, except grey iron jobbing cupolas and corn wet milling drying processes, shall meet the following requirements:

1. Except as provided for in paragraph (3)(A)2. and subsection (1)(B) of this rule, no person shall cause, suffer, allow or permit the emission of particulate matter in any one (1) hour from any source in excess of the amount calculated using one of the following equations selected based on the applicable process weight rate:

For process weight rates of 60,000 pounds per hour (lb/hr) or less:

$$E = 4.10P^{0.67}$$

and for process weight rates greater than 60,000 lb/hr:

$$E = 55.0P^{0.11} - 40;$$

where:

E = rate of emission in lb/hr; and

P = process weight rate in tons per hour (tons/hr); or

2. The limitations established by paragraph (3)(A)1. of this rule shall not require the reduction of particulate matter concentration, based on the source gas volume, below the concentration specified in paragraph (3)(A)2., Table I of this rule for that volume; provided that, for the purposes of this section, the person responsible for the emission may elect to substitute a volume determined according to the provisions of paragraph (3)(A)3. of this rule; and provided further that the burden of showing the source gas volume or other volume substituted, including all the factors which determine volume and the methods of determining and computing the volume shall be on the person seeking to comply with the provisions of this section.

Source Gas Volume (at Standard Cubic Foot Per Minute)	Concentration Grain Per Cubic Foot
7,000 or less	0.100
8,000	0.096
9,000	0.092
10,000	0.089
20,000	0.071
30,000	0.062
40,000	0.057
50,000	0.053
60,000	0.050
80,000	0.045
100,000	0.042
120,000	0.040
140,000	0.038
160,000	0.036
180,000	0.035
200,000	0.034
300,000	0.030
400,000	0.027
500,000	0.025
600,000	0.024
800,000	0.021
1,000,000 or more	0.020; or

3. Any volume of gases passing through and leaving an air pollution abatement operation may be substituted for the source gas volume of the emission unit served by the air pollution abatement operation, for the purposes of paragraph (3)(A)2. of this rule, provided that air pollution abatement operation emits no more than forty percent (40%) of the weight of particulate matter entering; and provided further that the substituted volume shall be corrected to standard conditions and to a moisture content no greater than that of any gas stream entering the air pollution abatement operation and further provided that there is an enforceable requirement to operate the air pollution abatement equipment; and

4. Notwithstanding the provisions of paragraphs (3)(A)1. and (3)(A)2. of this rule, no person shall cause, allow, or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

(B) Grey iron jobbing cupolas shall meet the following requirements:

1. Cupolas shall be equipped with gas cleaning devices operated to remove not less than eighty-five percent (85%) by weight of all the particulate matter in the cupola discharge gases or release not more than 0.4 grain of particulate matter per standard cubic foot of discharge gas, whichever is more stringent; and

2. All gases, vapors, and gas entrained effluents shall be incinerated at a temperature not less than one thousand two hundred degrees Fahrenheit (1,200 °F) for a period of not less than 0.3 seconds.

(C) All existing corn wet milling drying processes shall be equipped with gas cleaning devices operated to remove not less than ninety-nine and one-half percent (99.5%) by weight of all particulate matter in the dryer discharge gases or release not more than one one-hundredth grain of particulate matter per dry standard cubic foot (0.01 gr/dscf) of discharge gas.

(4) Reporting and Record Keeping. All records of any tests performed to determine the amount of particulate matter



emitted from a unit shall be kept on-site and available for inspection for five (5) years following the test date.

(5) Test Methods. The following hierarchy of emission measurement approaches shall be used to determine compliance with section (3) of this rule. If compliance data is not available from a measurement approach, or an approach is impractical for a source, then the next approach listed in the hierarchy shall be used in its place. The choice of an emissions measurement approach is subject to the approval of the director –

- (A) Continuous Emission Monitoring System (CEMS);
- (B) Stack tests as specified in 10 CSR 10-6.030(5)(A) or (5)(B), as determined by the director;
- (C) Compliance Assurance Monitoring (CAM) plan found in the facility's operating permit; or
- (D) Other methods, as described in permits issued under 10 CSR 10-6.060 or 10 CSR 10-6.065 or as approved by the director. These may include approved engineering calculations or other U.S. Environmental Protection Agency documentation.

*AUTHORITY: section 643.050, RSMo Supp. 2012.\* Original rule filed Jan. 14, 2000, effective Aug. 30, 2000. Amended: Filed Dec. 22, 2000, effective Sept. 30, 2001. Amended: Filed Sept. 9, 2008, effective May 30, 2009. Amended: Filed July 1, 2010, effective Feb. 28, 2011. Amended: Filed Sept. 16, 2011, effective May 30, 2012. Amended: Filed March 13, 2013, effective Oct. 30, 2013.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

### **10 CSR 10-6.405 Restriction of Particulate Matter Emissions from Fuel Burning Equipment Used for Indirect Heating**

*PURPOSE: This rule restricts the emission of particulate matter from fuel burning equipment used for indirect heating except where 10 CSR 10-6.070 would be applied.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

#### **(1) Applicability.**

(A) This rule applies throughout the state with additional conditions applicable to the metropolitan areas of Kansas City, Springfield, and St. Louis as found in sections (2) and (3) of this rule.

(B) 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. Fuels may include, but are not limited to, coal, tire derived fuel, coke, lignite, coke breeze, gas, fuel oil, biomass, and wood, but do not include refuse. When any products or byproducts of a manufacturing process are burned for the same purpose or in conjunction with any fuel, the same maximum emission rate limitations apply.

(C) An emission unit that is subject to 10 CSR 10-6.070 and

in compliance with applicable provisions; or an emission unit fueled by landfill gas, propane, natural gas, fuel oils #2 through #6 (with less than one and two-tenths percent (1.2%) sulfur), and/or other gases (with hydrogen sulfide levels less than or equal to four (4) parts per million volume as measured using ASTM D4084, as specified in 10 CSR 10-6.040(23), or equivalent and mercury concentrations less than forty (40) micrograms per cubic meter as measured using ASTM D5954, as specified in 10 CSR 10-6.040(30), or ASTM D6350, as specified in 10 CSR 10-6.040(32), or equivalent) would be deemed in compliance with 10 CSR 10-6.405.

(D) The heat input from emission units in subsection (1) (C) of this rule must be included in the calculation of Q, the installation's total heat input as defined in subsections (3)(D) and (3)(E) of this rule.

(E) An installation is exempt from this rule if all of the installation's applicable units are fueled only by landfill gas, propane, natural gas, fuel oils #2 through #6 (with less than one and two-tenths percent (1.2%) sulfur), or other gases (with hydrogen sulfide levels less than or equal to four (4) parts per million volume as measured using ASTM D4084, as specified in 10 CSR 10-6.040(23), or equivalent and mercury concentrations less than forty (40) micrograms per cubic meter as measured using ASTM D5954, as specified in 10 CSR 10-6.040(30), or ASTM D6350, as specified in 10 CSR 10-6.040(32), or equivalent) or any combination of these fuels.

#### **(2) Definitions.**

(A) Existing – Any source which was in being, installed, or under construction on the date provided in the following table:

Area of State	Construction date began on or before
Kansas City Metropolitan Area	February 15, 1979*
St. Louis Metropolitan Area	February 15, 1979*
Springfield-Greene County Area	September 24, 1971
Outstate Area	February 24, 1971

\*Exception: If any source subsequently is altered, repaired, or rebuilt at a cost of thirty percent (30%) or more of its replacement cost, exclusive of routine maintenance, it no longer is considered an existing source but will be considered a new source.

(B) New – Any source which is not an existing source, as defined in subsection (2)(A) of this rule.

(C) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

#### **(3) General Provisions.**

(A) The heat content of solid fuels shall be determined as specified in 10 CSR 10-6.040(2). The heat content of liquid hydrocarbon fuels shall be determined as specified in 10 CSR 10-6.040(3).

(B) For purposes of this rule, the heat input is the aggregate heat content of all fuels whose products of combustion pass through a stack(s). The hourly heat input value used shall be the equipment manufacturer's or designer's guaranteed maximum input, whichever is greater, except in the case of boilers of ten (10) million British thermal units (mmBtu) or less the heat input can also be determined by the higher heating value (HHV) of the fuel used at maximum operating conditions. The total heat input of all fuel burning units used for indirect heating at a plant or on a premises is used for determining the



maximum allowable amount of particulate matter which may be emitted.

(C) Indirect heating sources requiring permits under 10 CSR 10-6.060 that in turn may require particular air pollution control measures to meet more stringent emission rate limitations than in this rule shall meet the requirements of the permits issued under 10 CSR 10-6.060 Construction Permits Required.

(D) Emission Rate Limitations for Existing Indirect Heating Sources. No person may cause, allow, or permit the emission of particulate matter from existing indirect heating sources in excess of that specified in the following table:

Area of State	Heat Input (mmBtu/hour)	Rate Limits for Existing Sources (pounds/mmBtu)
Kansas City & St. Louis Metropolitan	< 10	0.60
	≥ 10 and ≤ 5,000	$E = 1.09Q^{-0.259}$
	> 5,000	0.12
Springfield-Greene County & Outstate Missouri	≤ 10	0.60
	> 10 and < 10,000	$E = 0.90Q^{-0.174}$
	≥ 10,000	0.18

Where:

E = the maximum allowable particulate emission rate limit for existing sources in pounds per mmBtu of heat input, rounded off to two (2) decimal places; and

Q = the summation of heat input in mmBtu/hour from all affected fuel burning equipment at a source (including existing equipment, new equipment, NSPS units, and other clean units identified in subsection (1)(C) of this rule).

(E) Emission Rate Limitations for New Indirect Heating Sources. No person may cause, allow, or permit the emission of particulate matter in excess of that specified in the following table:

Area of State	Heat Input (mmBtu/hour)	Rate Limits for New Sources (pounds/mmBtu)
Kansas City & St. Louis Metropolitan	< 10	0.40
	≥ 10 and ≤ 1,000	$E = 0.80Q^{-0.301}$
	> 1,000	0.10
Springfield-Greene County & Outstate Missouri	≤ 10	0.60
	> 10 and < 2,000	$E = 1.31Q^{-0.338}$
	≥ 2,000	0.10

Where:

E = the maximum allowable particulate emission rate limit for new sources in pounds per mmBtu of heat input, rounded off to two (2) decimal places; and

Q = the summation of heat input in mmBtu/hour from all affected fuel burning equipment at a source (including existing equipment, new equipment, NSPS units, and other clean units identified in subsection (1)(C) of this rule).

(F) Alternate Method of Compliance.

1. Compliance with this rule also may be demonstrated if the weighted average emission rate (WAER) of two (2) or more indirect heating sources is less than or equal to the maximum allowable particulate E determined in subsection (3)(D) or (3)(E) of this rule. The WAER for the indirect heating sources to be averaged is calculated by the following formula:

$$WAER = \frac{\sum_{i=1}^n (Ea_i \times Q_i)}{\sum_{i=1}^n Q_i}$$

Where:

WAER = the weighted average emission rate in pounds per mmBtu;

$Ea_i$  = the actual emission rate of the  $i$ th indirect heating source in pounds per mmBtu;

$Q_i$  = the rated heat input of the  $i$ th indirect heating source in mmBtu per hour; and

$n$  = the number of indirect heating sources in the average.

2. Installations demonstrating compliance with this rule in accordance with the requirements of subsection (3)(F) of this rule do so by making written application to the director. The application shall include the calculations performed in paragraph (3)(F)1. of this rule and all necessary information relative to making this demonstration.

3. Subsection (3)(F) of this rule only applies if the WAER determined by paragraph (3)(F)2. of this rule for indirect heating sources does not exceed the maximum allowable particulate E determined for that source from subsection (3)(D) or (3)(E) of this rule when using the rated heat input,  $Q_i$ , for the individual indirect heating source as if that individual indirect heating source was the only such source at the installation.

(4) Reporting and Record Keeping. All records must be kept on-site for a period of five (5) years and made available to the department upon request. The owner or operator shall maintain records of the following information for each year the unit is operated:

(A) The identification of each affected unit and the name and address of the plant where the unit is located for each unit subject to this rule;

(B) The calendar date of the record;

(C) The emission rate in pounds per mmBtu for each unit on an annual basis for those units complying with the limit in subsections (3)(D) and (3)(E) of this rule; and

(D) The emission rate in pounds per mmBtu for each facility on an annual basis for those units complying with subsection (3)(F) of this rule.

(5) Test Methods. The following hierarchy of methods shall be used to determine compliance with subsections (3)(D) and (3)(E) of this rule:

(A) Continuous Emission Monitoring System (CEMS);

(B) Stack tests, as specified in 10 CSR 10-6.030(5)(A) or (5)(B);

(C) Other EPA documents;

(D) Compliance Assurance Monitoring (CAM) Plans as found in a facility operating permit may be used to provide a reasonable assurance of compliance with subsections (3)(D) and (3)(E) of this rule;

(E) Sound engineering calculations;

(F) Any other method, such as AP-42 (U.S. Environmental Protection Agency (EPA) *Compilation of Air Pollutant Emission Factors*) or Factor Information and Retrieval System (FIRE), approved for the source by incorporation into a construction or operating permit, settlement agreement, or other federally enforceable document. AP-42 (Environmental Protection Agency (EPA) *Compilation of Air Pollutant Emission Factors*) and



Factor Information and Retrieval System (FIRE) as published by EPA January 1995 and August 1995 are hereby incorporated by reference in this rule. Copies can be obtained from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161. This rule does not incorporate any subsequent amendments or additions; or

(G) Other alternate emission estimation methods not listed in this section when pre-approval is obtained from the department and EPA before using such methods to estimate emissions.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed Feb. 25, 2011, effective Oct. 30, 2011. Amended: Filed Nov. 25, 2019, effective Sept. 30, 2020.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011.*

### **10 CSR 10-6.410 Emissions Banking and Trading**

*PURPOSE: This rule provides a mechanism for companies to acquire offsets for economic development in accordance with section 643.220, RSMo. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is section 643.220, RSMo.*

#### **(1) Applicability.**

(A) The generation of emission reduction credits (ERCs) in conjunction with this rule is available to installations that meet the following requirements:

1. Emit more than ten (10) tons per year for a criteria pollutant or its precursors as reported on their Emissions Inventory Questionnaire;

2. Have an operating permit as specified in 10 CSR 10-6.065 Operating Permits; and

3. Are located within any of the following areas:

A. An area that has been designated as a nonattainment area for a criteria pollutant;

B. A maintenance area for a criteria pollutant in which emissions offsets are required for new sources or modifications by the state implementation plan (SIP); or

C. A United States Environmental Protection Agency (U.S. EPA) approved attainment or maintenance demonstration or New Source Review (NSR) preconstruction permit modeling domain, unless it is a violation of federal law.

(B) The buying, selling, or trading of ERCs in conjunction with this rule is available to all persons.

(C) The use of ERCs in conjunction with this rule is limited to the following:

1. Emissions offsets to satisfy New Source Review permitting requirements; or

2. For sources needing emission decreases from existing sources in their area of impact to mitigate air quality impacts from new sources or modifications under prevention of significant deterioration (PSD) requirements.

#### **(2) Definitions.**

(A) Activity level—The amount of activity at a source measured in terms of production, use, raw materials input, vehicle miles traveled, or other similar units that have a direct correlation with the economic output of the source and is not affected by changes in the emissions rate (i.e., mass per unit of activity).

(B) Definitions of certain terms specified in this rule, other than those defined in this section, may be found in 10 CSR 10-6.020.

#### **(3) General Provisions.**

##### **(A) General Rules for Generation and Use.**

1. To become an account holder, a person must complete an account application, as specified in subsection (4)(A) of this rule, and be assigned a unique account identification number by the Missouri Department of Natural Resources' Air Pollution Control Program.

2. Each account holder must designate an authorized account representative and an alternate authorized account representative on the account application.

3. Except as provided under paragraph (3)(B)2. of this rule, any source may generate an ERC by reducing emissions, in the amount determined under paragraph (3)(B)1. ERC generators must ensure that ERCs are real, properly quantified, permanent, and surplus.

4. There shall be no resulting adverse impact on air quality.

5. The director of the Missouri Department of Natural Resources' Air Pollution Control Program may not approve use of offsets where that use would interfere with the nonattainment control strategy contained in the Missouri State Implementation Plan.

6. Governmental approvals. No ERC can be transferred without prior notification of intent to transfer to the director of the Missouri Department of Natural Resources' Air Pollution Control Program. No ERC can be retired without prior notification of intent to use. ERCs that are used for NSR offsets shall have prior director approval.

7. Market participation. Any account holder may transfer, buy, sell, trade, or otherwise convey ERCs to another account holder in any manner in accordance with this rule.

8. Limited authorization to emit. An ERC created under this rule is a limited authorization to emit a criteria pollutant or its precursor in accordance with the provisions of this rule. An ERC does not constitute a property right. Nothing in this rule shall be construed to limit the authority of the Missouri Air Conservation Commission to terminate or limit such authorization.

9. Serial numbers. Each ERC will be assigned a unique identification number.

##### **10. Shutdowns.**

A. ERCs may be generated when a unit is shutdown or retired if the new replacement equipment is directly replacing the retired unit and the permit is applied for within one (1) year of the shutdown or retirement of the existing unit.

B. ERCs may be generated for entire installation shutdowns if the installation is located in an area where offsets are required by the state implementation plan and if the installation is defined as a major source for the pollutant or a precursor of the pollutant for which the area is classified. These ERCs shall be reduced by twenty-five percent (25%) and rounded to the nearest ton at the time of deposit into the generator's account.

C. In nonattainment areas lacking an approved attainment plan, banking of ERCs from shutdowns is subject to the provisions of 40 CFR 51.165(a)(3)(ii)(C), which is incorporated by reference.

##### **11. Environmental contribution.**

A. On December 31 of each year, the banked ERCs that were deposited in previous calendar years shall be reduced by three percent (3%).

B. The department shall deduct three percent (3%) of these ERCs from each account holders' banked ERCs. The remaining account balances shall be rounded down to the nearest ERC.

C. If the account holder wishes for specific serial





numbered ERCs to be deducted for environmental contribution, a letter specifying the serial numbers must be received by the director of the Missouri Department of Natural Resources' Air Pollution Control Program by December 1 of each year.

D. On December 31 of each year, ERCs that have been reserved by an approved Notice of Intent to Use shall not be subject to the three percent (3%) environmental contribution.

E. In the event that ERCs are not taxed on December 31 due to being reserved and the ERCs are subsequently reinstated, a three percent (3%) environmental contribution shall be deducted at that time for each year that the ERCs were reserved and would have been subject to the environmental contribution.

12. ERCs shall be used on a first-in, first-out basis, unless specific serial numbers are included in the Notice of Intent to Use, Notice of Withdrawal, Notice of Intent to Transfer, or at the time of environmental contribution as specified in subparagraph (3)(A)11.C. of this rule. If serial numbers are not specified, the oldest ERCs in an account shall be reserved and/or retired first.

13. The trading or use of ERCs in a modeling domain may be based on modeling performed on a concentration basis.

**(B) ERC Generation.**

**1. Computation of ERCs.**

A. The number of ERCs shall be the difference between –

(I) The amount of actual emissions that would have been emitted during the generation period based on actual activity levels during that period and normal source operation; and

(II) The amount of actual emissions during the generation period based on actual activity levels during that period.

B. Protocols. The amount of ERCs must be calculated using quantification protocols that meet the requirements of paragraph (3)(B)7. of this rule.

2. Limitations on generation. An ERC shall not be created by emissions reductions of activities or source categories identified in this subsection:

A. Permanent shutdowns or curtailments, unless it meets the requirements of paragraph (3)(A)10. of this rule;

B. Modification or discontinuation of any activity that is otherwise in violation of any federal, state, or local requirements;

C. Emission reductions required to comply with any state, federal, or local action including but not limited to:

(I) State, federal, or local consent agreements;

(II) Any provision of a state implementation plan; or

(III) Requirements for attainment of a National Ambient Air Quality Standard;

D. Emission reductions of hazardous air pollutants from application of a standard promulgated under section 112 of the Clean Air Act;

E. Reductions credited or used under any other emissions trading program;

F. Emission reductions occurring at a source which received an alternate emission limit to meet a state reasonably available control technology (RACT) requirement, except to the extent that the emissions are reduced below the level that would have been required had the alternate emission limit not been issued; or

G. Emission reductions previously used in determining net emission increases or used to create alternate emission limits.

**3. Notice and Certification of Generation.**

A. The owner or operator of a generator source shall

provide a Notice and Certification of Generation to the Missouri Department of Natural Resources no later than ninety (90) days after the ERC generation activity was completed.

B. Required information. The Notice and Certification of Generation shall include the information specified in subsection (4)(B) of this rule.

C. The department shall review the Notice of Generation and notify the authorized account representative of approval or denial of the Notice of Generation within thirty (30) days of receipt of the notice.

D. The Notice and Certification of Generation shall be accompanied by an operating permit modification application.

E. Certification under penalty of law. Any Notice and Certification of Generation submitted pursuant to this subsection shall contain certification under penalty of law by a responsible official of the generator source of truth, accuracy, and completeness. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**4. ERC use.**

A. Time of acquisition. ERCs may not be used until they are acquired by the user source.

B. Sufficiency. The user source must hold sufficient ERCs to cover its offset obligation.

C. Offset calculation. The amount of ERCs needed to offset emissions shall be the anticipated actual emissions multiplied by the offset ratio.

**D. Notice of Intent to Use ERCs.**

(I) ERCs may be used only if the authorized account representative of the user source submits to the staff director of the Missouri Department of Natural Resources' Air Pollution Control Program a Notice of Intent to Use.

(II) Required information. The Notice of Intent to Use ERCs shall include the information specified in subsection (4)(C) of this rule.

(III) The department shall review the Notice of Intent to Use and notify the facility of approval or denial within thirty (30) days of receipt of the notice.

(IV) The Missouri Department of Natural Resources' Air Pollution Control Program shall reserve the specified ERCs when the permit application is deemed complete by the Initial Review Unit.

(V) Upon issuance of the construction permit, the appropriate number of reserved ERCs shall be permanently retired.

**E. Notice of Withdrawal.**

(I) An account holder may at any time withdraw ERCs from the program.

(II) Required information. The Notice of Withdrawal shall include the information specified in subsection (4)(D) of this rule.

(III) The department shall review the Notice of Withdrawal and notify the facility of approval or denial within thirty (30) days. Upon approval, the specified ERCs shall be removed from the facility's account.

**F. Notice of Transfer.**

(I) Account holders seeking an account transfer must submit a Notice of Transfer.

(II) Required information. The Notice of Transfer shall include the information specified in subsection (4)(E) of this rule.

(III) The department shall review the Notice of Transfer and notify the facilities of approval or denial within thirty (30) days. Upon approval, the specified ERCs shall be transferred to



the specified account.

5. Use limitations. ERCs may not be used –

A. Before acquisition by the user of the ERCs;

B. For netting or to avoid the applicability of NSR requirements;

C. For NSR offsets unless the requirements of paragraph (3)(B)8. of this rule are met;

D. To meet Clean Air Act requirements for new source performance standards (NSPS) under section 111; lowest achievable emission rate (LAER) standards; best available control technology (BACT) standards; hazardous air pollutant (HAP) standards under section 112; reasonably available control technology (RACT);

E. To meet the requirements for one (1) class of criteria pollutants or precursor by using ERCs generated in a different class of pollutants or precursors (e.g., NO<sub>x</sub> reductions may not be exchanged for volatile organic compound (VOC) increases, or vice-versa); or

F. To meet requirements contained in Title IV of the Federal Clean Air Act.

6. Geographic scope of trading.

A. ERCs may be used in a nonattainment or maintenance area only if generated in the same nonattainment or maintenance area.

B. ERCs generated inside a modeling domain may be used in the same modeling domain. Trading of ERCs within a modeling domain is subject to the limitations of subparagraph (3)(B)6.A. of this rule.

C. Interstate trading. (*Reserved*)

7. Protocol development and approval. To quantify the amount of ERCs generated and the amount needed for compliance, all sources shall use the following hierarchy as a guide to determine the most desirable emission data to report to the department. If data is not available for an emission estimation method or an emission estimation method is impractical for a source, then the subsequent emission estimation method shall be used in its place:

A. Continuous Emission Monitoring System (CEMS) as specified in 10 CSR 10-6.110;

B. Stack tests as specified in 10 CSR 10-6.110;

C. Material/mass balance;

D. AP-42 (Environmental Protection Agency (EPA) Compilation of Air Pollution Emission Factors) or FIRE (Factor Information and Retrieval System);

E. Other U.S. EPA documents as specified in 10 CSR 10-6.110;

F. Sound engineering calculations; or

G. Facilities shall obtain department approval of emission estimation methods other than those listed in subparagraphs (3)(B)7.A.–F. of this rule before using any such method to estimate emissions in the submission of data.

8. ERC use for NSR. All ERCs used to meet NSR offset requirements shall comply with the requirements of state rule 10 CSR 10-6.060 Construction Permits Required.

9. Compliance burden.

A. The ERC user source is responsible for assuring that the generation and use of ERCs comply with this rule.

B. The ERC user source (not the enforcing authority) bears the burden of proving that ERCs used are valid and sufficient and that the ERC use meets all applicable requirements of this rule. The ERC user source is responsible for compliance with its underlying obligations. In the event of enforcement against the user source for noncompliance, it shall not be a defense for the purpose of determining civil liability that the user source relied in good faith upon the generator source's

representations.

C. In the event of an invalid ERC, the generator source shall receive a Notice of Violation and the ERC user must find additional ERCs to comply with offset requirements.

10. Sources that emit less than ten (10) tons per year. (*Reserved*)

(C) Offsets. Offsets referred to in 10 CSR 10-6.060 subsection (7)(B) are subject to the following conditions:

1. Except for previously banked emission reduction credits, no offset credit may be taken for emission reductions occurring prior to the base year used to project attainment of the pollutant standard in the state implementation plan; and

2. No offset credit may be taken for emission reductions previously used in determining net emission increases or used to create alternate emission limits.

(D) Banking. Banking credit for emission reductions to use as offsets, at some future time, shall be allowed under the following circumstances:

1. The person requesting banking is the owner or operator of:

A. A new or modified installation who obtains a permit by applying offsets which exceed the requirements of 10 CSR 10-6.060; or

B. An existing installation in an area where offsets are required by the state implementation plan and that voluntarily reduces emissions of the pollutant or a precursor of the pollutant for which the area is classified after the base year used in the state implementation plan;

2. For source operations in the nonattainment areas for which reasonably available control technology (RACT) would be required, but as yet has not been defined, actual emission levels shall be reduced to represent post-RACT levels. The control technology assumed for these calculations shall be mutually agreed upon by the applicant and the director of the Missouri Department of Natural Resources' Air Pollution Control Program. Only emission reductions beyond the post-RACT emissions levels will be creditable;

3. Credit for emission reductions beyond those that were required by RACT or paragraph (3)(D)2. of this rule at a shutdown installation and that are in excess of those needed to offset a replacement installation can be banked;

4. It shall be a violation of this rule for any person to operate a source operation from which banked credit for emission reductions was obtained so as to emit the pollutant at levels greater than identified in the offset calculation referred to in subparagraph (3)(B)4.C. of this rule, unless the person who banked credit for the reductions, or their transferee, first files a notice with the director of the Missouri Department of Natural Resources' Air Pollution Control Program stating that credit for the reductions or a part of the credit is being withdrawn from the bank, and credit has not previously been withdrawn; and

5. The amount of banked emission reduction credits shall be discounted without compensation to the holder in the applicable source category when new rules requiring emission reductions are adopted by the commission. The amount of discounting of banked emission reduction credits shall be calculated on the same basis as the reductions required for existing sources which are subject to the new rule. A portion of banked credits, equivalent to the anticipated required reductions may be temporarily frozen by the director of the Missouri Department of Natural Resources' Air Pollution Control Program in anticipation of a new rule being adopted by the commission. This paragraph, however, shall not apply to emission reductions, discounted at the time of banking in accordance with paragraph (3)(D)2. of this rule, unless the



new rule provides for the replacement of RACT with BACT or another more stringent level of control.

(4) Reporting and Record Keeping.

(A) The Account Application shall include the following information, submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name and address of account holder;
2. Authorized account representative and alternate authorized account representative; and
3. County plant identification number (if applicable).

(B) The Notice and Certification of Generation shall include the following information, submitted on a form supplied by the Missouri Department of Natural Resources:

1. Account identification number;
2. Date generating activity was completed;
3. A brief description of the generation activity;
4. The amount of ERCs generated;
5. Affected emission units;
6. The protocols that were used to calculate and document the ERCs;

7. Information on all the generator source's applicable emission rates;

8. A statement that the reductions were calculated in accordance with paragraph (3)(B)1. of this rule;

9. A statement that the ERCs were not generated in whole or in part from actions prohibited pursuant to paragraph (3)(B)2. of this rule;

10. For each source subject to reporting toxic chemical releases for the Community Right-to-Know provisions under 40 CFR part 372, the estimated amount of hazardous air pollutants, as defined below, emitted to the air as the result of the generation of the ERC.

A. A pollutant shall be reported under this paragraph, only if it is listed both in 40 CFR 372.65 and section 112(b) of the Clean Air Act, and a chemical which the source is reporting or expects to report under 40 CFR part 372 for the calendar year in which the ERC was generated.

B. The requirements in 40 CFR 373.30(b) shall be followed for the notice.

C. The exemptions listed in 40 CFR 372.38 for determining the amount of release to be reported under 40 CFR 372.30 shall also be exemptions for determining the amount emitted under this subsection.

D. The notice shall include:

(I) The name and Chemical Abstracts Service (CAS) number (if applicable) of the chemical reported;

(II) If the chemical identity is claimed trade secret under 40 CFR 372, a generic name for the chemical as reported under 40 CFR 372.85(b)(11);

(III) A mixture component identity if the chemical identity is not known; and

(IV) An estimate of total air emissions, in pounds, for the relevant time period of ERC generation. Releases of less than one thousand (1,000) pounds may be indicated in ranges.

11. Signature of authorized account representative and the signature of an official responsible for the truth, accuracy, and completeness of the notice.

(C) The Notice of Intent to Use ERCs shall include the following information submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name of the facility;
2. The emissions unit and the applicable pollutant;
3. Account identification number;
4. The date(s) on which the ERCs were acquired;

5. The amount of ERCs used and the associated serial numbers;

6. The applicable state and federal requirements that the ERCs were used to comply with;

7. The emissions quantification protocols that were used to calculate the amount of ERCs required to demonstrate compliance and documentation for the compliance calculation under paragraph (3)(B)7. of this rule;

8. A statement that due diligence was made to verify that the ERCs were not previously used and not generated as a result of actions prohibited under this regulation or other provisions of law;

9. A statement that the ERCs were not used in a manner prohibited under this regulation or other provisions of law;

10. For each source subject to reporting toxic chemical releases for the Community Right-to-Know provisions under 40 CFR part 372, the estimated amount of hazardous air pollutants emitted to the air as the result of the use of the ERC to meet otherwise applicable requirements. The estimated amount shall include emissions increases and any emission reductions used for ERCs instead of non-ERC compliance with otherwise applicable requirements. The same procedures shall be followed as the similar requirement under the Notice and Certification of Generation; and

11. Signature of authorized account representative and the signature of an official responsible for the truth, accuracy, and completeness of the notice.

(D) The Notice of Withdrawal shall include the following information submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name of the facility;
2. The emissions unit and the applicable pollutant;
3. Account identification number;
4. The serial numbers of the ERCs to be withdrawn;
5. The reason for the withdrawal;

6. A copy of the Notice and Certification of Generation submitted by the generator source to the state; and

7. Signature of authorized account representative and the signature of an official responsible for the truth, accuracy, and completeness of the notice.

(E) The Notice of Transfer shall include the following information submitted on a form supplied by the Missouri Department of Natural Resources:

1. The name of the account holder that is trading the ERCs;

2. The name of the account holder that is receiving the ERCs;

3. Account identification number;

4. The amount of ERCs to be transferred and the associated serial numbers and applicable pollutants;

5. A statement that due diligence was made to verify that the ERCs were not previously used and not generated as a result of actions prohibited under this regulation or other provisions of law; and

6. Signature of authorized account representatives from both accounts signifying that both account holders agree to the requested transfer.

(F) The generator source shall document the protocol and specific data by which an ERC is quantified. Generator sources shall transfer all such documentation to any transferee at the time that ownership of an ERC is transferred. The user source shall document the protocol and specific data by which the amount of ERCs needed for compliance was determined. The user source shall maintain all relevant documentation for a minimum of five (5) years after an ERC is used for compliance. Records shall be kept with at least the same frequency as



required for the underlying requirement.

(5) Test Methods. *(Not Applicable)*

*AUTHORITY: sections 643.050 and 643.220, RSMo Supp. 2011.\*  
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Sept. 30, 2012.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011 and  
643.220, RSMo 2001, amended 2002.*