



1. The owner or operator shall maintain a file which identifies the date and time of any significant malfunction of plant process operations or of emission control equipment which results in increased lead emissions. The file also shall contain a description of any corrective action taken, including the date and time. 10 CSR 10-6.050 Start-Up, Shutdown, and Malfunction Conditions shall apply.

2. All of these files relating to operational malfunction shall be retained for a minimum of two (2) years and, upon request, shall be made available to the director.

(B) Provisions Pertaining to Limitations of Lead Emissions from Specific Installations. Doe Run Resource Recycling Division in Boss, Missouri, shall limit total lead production to one hundred seventy-five thousand (175,000) tons per year.

(C) Provisions Pertaining to Limitations of Lead Emissions From Other Than Stacks at All Installations.

1. The owner or operator shall control fugitive emissions of lead from all process and area sources at an installation by measures described in a work practice manual identified in paragraph (3)(C)2. of this rule. It is a violation of this rule to fail to adhere to the requirements of these work practices.

2. Work practice manual.

A. The owner or operator shall prepare, submit for approval, and then implement a process and area-specific work practice manual that will apply to locations of fugitive lead emissions at the installation.

B. The manual shall be the method of determining compliance with the provisions of this section. Failure to adhere to the work practices in the manual is a violation of this rule.

C. Any change to the manual proposed by the owner or operator following the initial approval shall be requested in writing to the director. Any proposed change shall demonstrate that the change in the work practice will not lessen the effectiveness of the fugitive emission reductions for the work practice involved. Written approval by the director is required before any change becomes effective in the manual.

D. If the director determines a change in the work practice manual is necessary, the director will notify the owner or operator of that installation. The owner or operator shall revise the manual to reflect these changes and submit the revised manual within thirty (30) days of receipt of notification. These changes shall become effective following written approval of the revised manual by the director.

(4) Reporting and Record Keeping.

(A) The operator shall keep records and files generated by the work practice manual's implementation.

(B) The work practice manual shall contain the requirement that records of inspections made by the operator of fugitive emissions control equipment such as hoods, air ducts, and exhaust fans be maintained by the operator.

(C) The Doe Run Resource Recycling Division, Boss, Missouri, operator shall keep records that demonstrate compliance with the emissions limitations described in subsection (3)(B) using the sampling methods described in subsection (5)(E) of this rule. These records shall be maintained on-site in accordance with record keeping and reporting requirements in subsection (5)(E) of this rule.

(D) Records shall be kept for a minimum of two (2) years at the installation and shall be made available upon request of the director for purposes of determining compliance.

(5) Test Methods.

(A) The method of determining the concentration of visible emissions from stack sources shall be Method 9—Visual Determination of the Opacity of Emissions from Stationary Sources or Method 22—Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares as specified in 10 CSR 10-6.030(22).

(B) The method of measuring lead in stack gases shall be Method 12—Determination of Inorganic Lead Emissions from Stationary Sources as specified in 10 CSR 10-6.030(22).

(C) The method of quantifying the determination of compliance with the emission limitations from stacks in this rule shall be as follows:

1. Three (3) stack samplings shall be planned to be conducted for any one (1) stack within a twenty-four (24)-hour period in accordance with subsection (5)(B) of this rule. If this cannot be done due to weather, operating, or other preventative conditions that develop during the twenty-four (24)-hour period, then the remaining samplings may be conducted in a reasonable time determined by the director following the twenty-four (24)-hour period;

2. Each stack sample shall have a sampling time of at least one (1) hour;

3. The process(es) producing the emissions to that stack being tested shall be operating at a minimum of ninety percent (90%) of capacity of the process(es) for the full duration of the samplings; and

4. The emission rate to be used for compliance determination shall be quantified by using the following formula:

$$E_c = T \text{ avg lbs per hour} \times 24 \text{ hours} = \text{lbs per 24 hours}$$

Where:

$E_c$  = 24-hour emission rate extrapolated from stack sampling results used for compliance determination; and

$T \text{ avg}$  = Summation of hourly emission rates of three (3) stack sampling results, divided by three (3) for the average hourly rate.

(D) The method of measuring lead in the ambient atmosphere shall be the reference method as specified in 10 CSR 10-6.040(4)(G).

(E) The methods for demonstrating compliance at the Doe Run Resource Recycling Division in Boss, Missouri, shall be those specified in 40 CFR 63, subpart X. 40 CFR 63, Subpart X promulgated as of July 1, 2018 is 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.

*AUTHORITY: sections 643.050 and 643.055, RSMo 2016.\* Original rule filed Aug. 4, 1988, effective Dec. 29, 1988. Amended: Filed Sept. 5, 1990, effective March 14, 1991. Amended: Filed March 4, 1993, effective Oct. 10, 1993. Amended: Filed Aug. 3, 1993, effective April 9, 1994. Amended: Filed Feb. 16, 1994, effective Aug. 28, 1994. Amended: Filed Nov. 14, 1995, effective June 30, 1996. Amended: Filed March 16, 1998, effective Oct. 30, 1998. Amended: Filed Aug. 11, 2000, effective March 30, 2001. Amended: Filed Aug. 6, 2002, effective April 30, 2003. Amended: Filed July 1, 2004, effective March 30, 2005. Amended: Filed Dec. 17, 2008, effective Sept. 30, 2009. Amended: Filed May 9, 2018, effective Feb. 28, 2019.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995, 2011 and 643.055, RSMo 1979, amended 1992, 1994, 2014.*

**10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential**

*PURPOSE: This rule specifies the conditions that establish air pollution alert and emergency alert levels and the associated procedures and emissions reduction objectives.*

(1) Applicability.

(A) This rule shall apply to all sources and premises throughout the entire state with air emissions that contribute to sulfur dioxide



(SO<sub>2</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), or Particulate Matter—10 Micron (PM<sub>10</sub>) and 2.5 Micron (PM<sub>2.5</sub>).

(B) The boundaries of the affected area shall be determined at the discretion of the director in accordance with the nature and magnitude of the pollutant concentrations and meteorological conditions that cause the alert.

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

(3) General Provisions.

(A) Air Pollution Alerts.

1. The Air Quality Index shall be reported to the general public on a daily basis by all metropolitan statistical areas with a population exceeding three hundred fifty thousand (350,000).

2. Alert levels for applicable air pollutants are stated in terms of the Air Quality Index (AQI) as defined in 40 CFR 58, Appendix G. Table A shows the relation of the AQI ranges to alert categories.

5. Termination of alerts. When, in the judgment of the director, meteorological conditions and pollutant concentrations warrant discontinuance of any alert condition, the director shall notify the technical staff, the chairman, and members of the Missouri Air Conservation Commission that the alert has been discontinued and issue a public notice to that effect.

(B) Conditions. This subsection provides conditions that establish alert level categories.

| <b>Table A</b> |                                |                    |
|----------------|--------------------------------|--------------------|
| <b>AQI</b>     |                                |                    |
| <b>AQI</b>     | <b>Alert Category</b>          | <b>Alert Color</b> |
| 0-50           | Good                           | Green              |
| 51-100         | Moderate                       | Yellow             |
| 101-150        | Unhealthy for Sensitive groups | Orange             |
| 151-200        | Unhealthy                      | Red                |
| 201-300        | Very Unhealthy                 | Purple             |
| 301-400        | Hazardous                      | Maroon             |
| 401-500        | Hazardous                      | Maroon             |

3. Alert types and levels of initiation. If an AQI value falls within the AQI range listed in Table A of this rule, the corresponding alert color shall be initiated.

4. Declaration of alerts. An orange alert, red alert, purple alert, or maroon emergency alert may be declared on the basis of deteriorating air quality alone; an Air Stagnation Advisory need not be in effect. The appropriate alert level should be declared by the director as ambient monitoring would indicate.



| <b>Table B</b>  |   |  |   |
|---|---|--|---|
| <b>Conditions for Alert Level Categories</b>  |   |  |   |
| <b>Orange (101-150)</b>   | <b>Red (151-200)</b>  | <b>Purple (201-300)</b>  | <b>Maroon (301-500)</b>   |
| <p>This alert level AQI value is equaled or exceeded at any one (1) monitoring station within the affected area, unless there is a current forecast of meteorological improvement within the next twenty-four (24) hours.<br/> <i>-- and --</i><br/>                     Meteorological conditions are such that the conditions can be expected to remain or reoccur in this alert level range during the next twenty-four (24) or more hours or increase unless control actions are taken.</p> | <p>This alert level AQI value is equaled or exceeded at any one (1) monitoring station within the affected area, unless there is a current forecast of meteorological improvement within the next twenty-four (24) hours.<br/> <i>-- and --</i><br/>                     Meteorological conditions are such that the conditions can be expected to remain or reoccur in this alert level range during the next twenty-four (24) or more hours or increase unless control actions are taken.</p> | <p>This alert level AQI value is equaled or exceeded at any one (1) monitoring station within the affected area.</p>   | <p>This alert level AQI value is equaled or exceeded at any one (1) monitoring station within the affected area.</p>  |
|   |   | <p style="text-align: center;"><i>-- or --</i></p> <p>This alert level AQI value is equaled or exceeded as the arithmetic mean for twelve (12) consecutive hours and an Air Stagnation Advisory is in effect.</p>                                    | <p style="text-align: center;"><i>-- or --</i></p> <p>This alert level AQI value is equaled or exceeded as the arithmetic mean for twelve (12) consecutive hours and a forecast of stagnation for the following twelve (12) hours is received.</p>      |
|   |   | <p style="text-align: center;"><i>-- or --</i></p> <p>The red alert AQI value is equaled or exceeded as the arithmetic mean for twenty-four (24) consecutive hours and a forecast of stagnation for the following twelve (12) hours is received.</p> | <p style="text-align: center;"><i>-- or --</i></p> <p>The purple alert AQI value is equaled or exceeded as the arithmetic mean for twenty-four (24) consecutive hours and a forecast of stagnation for the following twelve (12) hours is received.</p> |
|   |   |  | <p style="text-align: center;"><i>-- or --</i></p> <p>The red alert AQI value is equaled or exceeded as the arithmetic mean for thirty-six (36) consecutive hours and a forecast of stagnation for the following twelve (12) hours is received.</p>     |

(C) Procedures. This subsection establishes procedures for addressing alert level conditions.



| <b>Table C</b>  |   |   |
|---|---|---|
| <b>Procedures</b>   |   |   |
| <b>Red (151-200)</b>  | <b>Purple (201-300)</b>   | <b>Maroon (301-500)</b>   |
| The general public shall be informed through the news media that an alert of this level exists, the geographical area(s) where the alert is applicable, the emission and type of source(s) that initiated the alert, individual abatement actions that will help alleviate the problem, and encourage those with respiratory ailments or heart conditions to take the most appropriate and expedient precautions. | The general public shall be informed through the news media that an alert of this level exists, the geographical area(s) where the alert is applicable, the emission and type of source(s) that initiated the alert, individual abatement actions that will help alleviate the problem, and encourage those with respiratory ailments or heart conditions to take the most appropriate and expedient precautions. | The general public shall be informed through the news media that an alert of this level exists, the geographical area(s) where the alert is applicable, the emission and type of source(s) that initiated the alert, individual abatement actions that will help alleviate the problem, and encourage those with respiratory ailments or heart conditions to take the most appropriate and expedient precautions. |
| All affected governmental control agencies shall be notified of the existing alert level and that coordination of action is required.   | All affected governmental control agencies shall be notified of the existing alert level and that coordination of action is required.   | All affected governmental control agencies shall be notified of the existing alert level and that coordination of action is required.   |
| All hospitals within the affected area shall be notified of the existing alert level and be prepared for an increase in the number of patients seeking treatment.   | All hospitals within the affected area shall be notified of the existing alert level and be prepared for an increase in the number of patients seeking treatment.   | All hospitals within the affected area shall be notified of the existing alert level and be prepared for an increase in the number of patients seeking treatment.   |
| The frequency of air monitoring shall be increased at all monitoring stations that are not continuous at intervals not exceeding one (1) hour with continual hourly review at a central control location, if this equipment is available and it is deemed necessary by the director.  | The frequency of air monitoring shall be increased at all monitoring stations that are not continuous at intervals not exceeding one (1) hour with continual hourly review at a central control location, if this equipment is available and it is deemed necessary by the director.  | The frequency of air monitoring shall be increased at all monitoring stations that are not continuous at intervals not exceeding one-half (1/2) hour with continual half-hour review at a central control location, if this equipment is available and it is deemed necessary by the director.  |
| All open burning shall cease throughout the affected area.  | All open burning and incineration shall cease throughout the affected area.   | All open burning and incineration shall cease throughout the affected area.   |
| The general public shall be requested through the news media to restrict the unnecessary use of motor vehicles.   | The general public shall be told through the news media that local vehicular traffic shall avoid certain areas and all unnecessary use of motor vehicles is restricted. Nonlocal vehicular traffic may be diverted around the affected area depending upon which pollutant(s) caused the existing conditions.   | The use of motor vehicles is prohibited except in emergencies with the approval of local or state police.   |



|  |   |  |
|--|---|--|
|  | Airlines operating within the purple alert area shall be notified that those conditions exist and that a reduction of flights out of the airport may be required.   | All airplane flights originating within the area of the maroon emergency alert shall be cancelled.   |
|  | If requested by the director, facilities that are sources of air contaminant emissions are required to file alert plans in accordance with section (4) of this rule and shall be prepared to implement the plan upon notification by the director in the event of a purple alert. | If requested by the director, facilities that are sources of air contaminant emissions are required to file alert plans in accordance with section (4) of this rule and shall be prepared to implement the plan upon notification by the director in the event of a maroon emergency alert.  |
|  |   | All places of employment described as follows shall immediately cease operation during a maroon emergency alert: mining and quarrying; contract construction work; wholesale trade establishments; schools and libraries; governmental agencies except those needed to administer the air pollution alert program and other essential agencies determined by the director to be vital for public safety and welfare and needed to administer the provisions of this rule; retail trade stores except those dealing primarily in sale of food or pharmacies; banks, real estate agencies, insurance offices, and similar business; laundries, cleaners and dryers, beauty and barber shops, and photographic studios; amusement, recreational, gaming, and entertainment service establishments; automobile repair and automobile service garages; and advertising offices, consumer credit reporting, adjustment and collection agencies, printing and duplicating services, rental agencies, and commercial testing laboratories. |
|  |   | All manufacturing facilities except those required to submit alert plans shall institute action that will result in maximum reduction of air contaminants from their operations by ceasing, curtailing, or postponing operations to the extent possible without causing injury to persons or damage to equipment.  |



(4) Reporting and Record Keeping. Facilities that are sources of air contaminant emissions and required to file alert plans per Table C of this rule shall file purple and maroon alert plans with the director within sixty (60) days of the director's request. Alert plans shall—

(A) Address the objectives provided in Tables D, E, and F; and

(B) Include the planning necessary for implementation.

Updates to alert plans, including requests for rescissions, shall be provided when changes to operations necessitate.

| <b>Table D</b>   |  |
|--|--|
| <b>Purple Alert (201-300) Plan Objectives</b>  |  |
| <b>Sources</b>   | <b>Objectives</b>  |
| Electric power generating facilities   | Reduction of emissions by diverting electric power generation to facilities outside of area for which the alert is called.   |
|  | If applicable, reduce emissions by utilization of fuels having low ash and sulfur content. If applicable, soot blowing and boiler lancing to be allowed only during periods of high atmospheric turbulence (12:00 noon to 4:00 p.m.).                |
| Process steam generating facilities  | Reduction of steam load demands consistent with continuing the operation of the plant.   |
|  | If applicable, reduce emissions by utilization of fuels having low ash and sulfur content. If applicable, soot blowing and boiler lancing to be allowed only during periods of high atmospheric turbulence (12:00 noon to 4:00 p.m.).                |
| Manufacturing industries of the following Standard Industrial Classification Manual (SIC) group designations: grain industries, group 20; paper and allied products industries, group 26; chemicals and allied products industries, group 28; petroleum refining and related industries, group 29; stone, glass, clay, and concrete product industries, group 32; primary metal industries, group 33 | Reduction of heat load demands for processing to a minimum.  |
|  | Reduction of air contaminant emissions by curtailing, postponing, or deferring production and allied operations. Stoppage of all trade waste disposal practices that emit particles, gases, vapors, or malodorous substances including incineration. |
| Other manufacturing facilities required to submit alert plans by the director  | Reduction of heat load demands for processing to a minimum.  |
|  | Reduction of air contaminant emissions by curtailing, postponing, or deferring production and allied operations. Stoppage of all trade waste disposal practices that emit particles, gases, vapors, or malodorous substances including incineration. |
| Private, public, and commercial operations   | For refuse disposal, stoppage of all open burning including disposal of trees and burning at fire-fighting schools, except as required for disposal of hazardous materials or other emergency needs.   |
|  | For refuse disposal, operation of incinerators shall cease per Table C of this rule.   |
| Transportation   | See Table C of this rule for motor vehicle restrictions.   |



| <b>Table E</b>   |   |
|--|---|
| <b>Maroon Emergency Alert (301-400) Plan Objectives</b>  |   |
| <b>Sources</b>   | <b>Objectives</b>   |
| Electric power generating facilities   | Reduction of emissions by diverting electric power generation to facilities outside of area for which the alert is called.  |
|  | If applicable, reduce emissions by utilization of fuels having low ash and sulfur content. If applicable, soot blowing and boiler lancing to be allowed only during periods of high atmospheric turbulence (12:00 noon to 4:00 p.m.).             |
| Process steam generating facilities  | If applicable, obtain maximum reduction of air contaminant emissions by utilization of fuels having the lowest ash and sulfur content.  |
|  | If applicable, maximize use of periods of high atmospheric turbulence (12:00 noon to 4:00 p.m.) for soot blowing and boiler lancing.  |
| Manufacturing industries of the following Standard Industrial Classification Manual (SIC) group designations: grain industries, group 20; paper and allied products industries, group 26; chemicals and allied products industries, group 28; petroleum refining and related industries, group 29; stone, glass, clay, and concrete product industries, group 32; primary metal industries, group 33 | Maximum reduction of heat load demands for processing.  |
|  | Maximum reduction of air contaminant emissions by, if necessary, postponing production and allied operations. Stoppage of all trade waste disposal practices that emit particles, gases, vapors, or malodorous substances including incineration. |
| Other manufacturing facilities required to submit alert plans by the director  | Maximum reduction of heat load demands for processing.  |
|  | Maximum reduction of air contaminant emissions by, if necessary, postponing production and allied operations. Stoppage of all trade waste disposal practices that emit particles, gases, vapors, or malodorous substances including incineration. |
| Private, public, and commercial operations   | For refuse disposal, stoppage of all open burning including disposal of trees and burning at fire-fighting schools, except as required for disposal of hazardous materials or other emergency needs.  |
|  | For refuse disposal, operation of incinerators shall cease per Table C of this rule.  |
| Transportation   | See Table C of this rule for motor vehicle restrictions.  |



| <b>Table F</b>   |  |
|--|--|
| <b>Maroon Emergency Alert (401-500) Plan Objectives</b>  |  |
| <b>Sources</b>   | <b>Objectives</b>  |
| Electric power generating facilities   | Reduction of emissions by diverting electric power generation to facilities outside of area for which the alert is called.   |
|  | If applicable, reduce emissions by utilization of fuels having low ash and sulfur content. If applicable, soot blowing and boiler lancing to be allowed only during periods of high atmospheric turbulence (12:00 noon to 4:00 p.m.).  |
| Process steam generating facilities  | Maximum reduction of air contaminant emissions by reducing heat and steam load demands to values consistent with preventing equipment damage.  |
|  | If applicable, maximize use of periods of high atmospheric turbulence (12:00 noon to 4:00 p.m.) for soot blowing and boiler lancing.   |
| Manufacturing industries of the following Standard Industrial Classification Manual (SIC) group designations: grain industries, group 20; paper and allied products industries, group 26; chemicals and allied products industries, group 28; petroleum refining and related industries, group 29; stone, glass, clay, and concrete product industries, group 32; primary metal industries, group 33 | Maximum reduction of heat load demands for processing.   |
|  | Elimination of air contaminant emissions from the manufacturing operations by ceasing, curtailing, postponing, or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.  |
| Other manufacturing facilities required to submit alert plans by the director  | Maximum reduction of heat load demands for processing.   |
|  | Elimination of air contaminant emissions from the manufacturing operations by ceasing, curtailing, postponing, or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.  |
| Private, public, and commercial operations   | For refuse disposal, stoppage of all open burning including disposal of trees and burning at fire-fighting schools, except as required for disposal of hazardous materials or other emergency needs.   |
|  | For refuse disposal, operation of incinerators shall cease per Table C of this rule.   |
|  | The following places of employment, if notified by the director, immediately shall cease operations: mining and quarrying operations; construction projects except as required to avoid emergent physical harm; manufacturing establishments except those required to have in force an air pollution alert plan; wholesale trade establishments; governmental units, except as required to implement the provisions of this rule and other operations essential to immediate protection of the public welfare and safety; retail trade and service establishments except pharmacies, food stores, and other similar operations providing for emergency needs; other commercial service operations, such as those engaged in banking, insurance, real estate, advertising, and the like; educational institutions; and amusement, recreational, gaming, and entertainment facilities. |
| Transportation   | See Table C of this rule for motor vehicle restrictions.   |





(5) Test Methods. The testing references for Missouri ambient air quality data are as specified in 10 CSR 10-6.040 Reference Methods.

*AUTHORITY:* section 643.050, RSMo Supp. 2013.\* Original rule filed May 11, 1984, effective Oct. 11, 1984. Amended: Filed Jan. 5, 1988, effective April 28, 1988. Amended: Filed March 13, 2002, effective Nov. 30, 2002. Amended: Filed Sept. 24, 2009, effective May 30, 2010. Amended: Filed May 7, 2013, effective Dec. 30, 2013.

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

### 10 CSR 10-6.140 Restriction of Emissions Credit for Reduced Pollutant Concentrations From the Use of Dispersion Techniques

*PURPOSE:* This rule implements provisions of federal regulations which restrict credit in the calculation of emission limitations for reduced pollutant concentrations due to the use of dispersion techniques.

(1) Applicability. This rule shall apply to the procedures to account for emission dispersion techniques used in the calculation of any emission limitation or any revision of any limitation to be established by the director or to be considered for establishment by the Missouri Air Conservation Commission (MACC). This rule also requires that all emission limitations established by the director or by the MACC after December 31, 1970, be reviewed for compliance with this rule.

(2) General.

(A) The degree of emission limitation required of any installation for control of any air pollutant must not be affected by that portion of any installation's stack height that exceeds good engineering practice (GEP) or by any other dispersion technique, except as provided in section (3).

(B) Before the director or the MACC establishes an emission limitation that is based on a GEP stack height that exceeds the formula GEP height allowed by 10 CSR 10-6.020(2)(G)2.B., the director must notify the public of the availability of the demonstration study and must provide opportunity for public hearing on it.

(C) This rule does not restrict the actual stack height of any installation or the use of any dispersion technique by any installation.

(3) Exemptions. The provisions of section (2) shall not apply to emission limitation credits from—

(A) Stack heights on which construction commenced on or before December 31, 1970, except where pollutants are being emitted from the stacks by source operations which were constructed, or reconstructed or on which major modifications were carried out after December 31, 1970; or

(B) Dispersion techniques implemented before December 31, 1970, except where these dispersion techniques are being applied to source operations which were constructed, or reconstructed or on which major modifications were carried out after December 31, 1970.

*AUTHORITY:* section 643.050, RSMo Supp. 1992.\* Original rule filed Jan. 6, 1986, effective May 11, 1986.

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

### 10 CSR 10-6.150 Circumvention

*PURPOSE:* This rule prohibits the installation or use of any device or means which conceals or dilutes an emission violating a rule.

(1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceal or dilute an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

*AUTHORITY:* section 643.050, RSMo Supp. 1992.\* This rule was previously filed as 10 CSR 10-2.090, 10 CSR 10-4.130 and 10 CSR 10-5.230. Original rule filed April 18, 1990, effective Nov. 30, 1990.

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

### 10 CSR 10-6.160 Medical Waste and Solid Waste Incinerators

*Editor's Note:* On March 29, 1993, the Circuit Court of Cole County found that 10 CSR 10-6.160 was void since it exceeds the statutory cost analysis requirements of sections 536.200 and 536.205, RSMo.

### 10 CSR 10-6.161 Commercial and Industrial Solid Waste Incinerators.

*PURPOSE:* This rule incorporates by reference the federal regulatory requirements for existing commercial and industrial solid waste incineration units in Missouri. The evi-

dence supporting the need for this proposed rulemaking, per 536.016, RSMo, is *Federal Register Notice 78 FR 9112, dated February 7, 2013.*

*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 to commercial and industrial solid waste incinerator (CISWI) units, defined by section (2) of this rule, as follows:

1. Energy recovery units, waste burning kilns, and small remote incinerators that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013;

2. Other CISWI incinerators that commenced construction on or before November 30, 1999 and were not modified or reconstructed after June 1, 2001; and

3. Other CISWI incinerators that commenced construction after November 30, 1999, but no later than June 4, 2010, or commenced modification or reconstruction on or after June 1, 2001 but no later than August 7, 2013.

(B) If the owner or operator of a CISWI unit makes changes that meet the definition of modification or reconstruction on or after June 1, 2001, the CISWI unit becomes subject to 40 CFR 60 subpart CCCC and the CISWI state plan no longer applies to that unit.

(C) Exemptions to this rule are as follows:

1. This rule does not apply to combustion units listed in 40 CFR 60.2555; and

2. If the owner or operator of a CISWI unit makes physical or operational changes to an existing CISWI unit primarily to comply with the CISWI state plan, 40 CFR 60 subpart CCCC does not apply to that unit because such changes do not qualify as modifications or reconstructions under 40 CFR 60 subpart CCCC.

(2) Definitions.

(A) The definitions of 40 CFR 60.2875 apply as specified in 10 CSR 10-6.030(22).



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

(3) General Provisions. The following references to 40 CFR 60.2575 through 60.2735, 40 CFR 60.2805 through 60.2870, and 40 CFR 60, Subpart DDDD Tables 1 through 9, apply as specified in 10 CSR 10-6.030(22):

(A) Increments of Progress—40 CFR 60.2575 through 60.2615 and 40 CFR 60.2815 through 60.2855;

(B) Waste Management Plan—40 CFR 60.2620 through 60.2630;

(C) Operator Training and Qualification—40 CFR 60.2635 through 60.2665;

(D) Emission Limitations and Operating Limits—40 CFR 60.2670 through 60.2685 and 40 CFR 60.2860;

(E) Performance Testing—40 CFR 60.2690 through 60.2695;

(F) Initial Compliance Requirements—40 CFR 60.2700 through 60.2706. If the owner or operator of a waste-burning kiln chooses to switch to and comply with the equivalent production-based mercury emission limit in subparagraph (3)(K)1.B. of this rule, initial compliance shall be demonstrated pursuant to 40 CFR 63.1348(a)(5). The initial compliance test must begin on the first operating day following completion of the field testing and data collection that demonstrates that the continuous emissions monitoring system has satisfied the relevant performance acceptance criteria of Performance Specifications 12A or 12B in 40 CFR Part 60 Appendix B. The notification required by 40 CFR 60.2760(a) through (c) shall also include the owner or operators intention to comply with the equivalent production-based mercury emission limit in subparagraph (3)(K)1.B. of this rule. For waste-burning kilns choosing to comply with the equivalent production-based mercury emission limit in paragraph (3)(K)1.B. of this rule, the term operating day in 40 CFR 63.1348(a)(5), 40 CFR 63.1348(b)(7) and 40 CFR 63.1349(b)(5) means any twenty-four (24)-hour period beginning at 12:00 midnight during which the kiln produces any amount of clinker. 40 CFR 63.1348(a)(5), 40 CFR 63.1348 (b)(7), 63.1349(b)(5), and 40 CFR 60 Appendix B Specifications 12A and 12B 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;

(G) Continuous Compliance Require-

ments—40 CFR 60.2710 through 60.2725. If the owner or operator of a waste-burning kiln chooses to switch to and comply with the equivalent production-based mercury emission limit in subparagraph (3)(K)1.B. of this rule, continuous compliance shall be demonstrated pursuant to the procedures of 40 CFR 63.1348(b)(7) and 40 CFR 63.1349(b)(5). 40 CFR 63.1348(b)(7), and 63.1349(b)(5) 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;

(H) Monitoring—40 CFR 60.2730 through 60.2735 and 40 CFR 60.2865. If the owner or operator of a waste-burning kiln chooses to switch to and comply with the equivalent production-based mercury emission limit in subparagraph (3)(K)1.B. of this rule, it must also monitor mercury pursuant to 40 CFR 63.1350(k), the clinker production rate pursuant to 40 CFR 63.1350(d), and the flow rate pursuant to 40 CFR 63.1350(n). An owner or operator of a waste burning kiln is not required to develop an emissions monitoring plan pursuant to 40 CFR 63.1350(p)(1) through (p)(4) if the owner or operator prepares the emissions monitoring plan required pursuant to 40 CFR 60.2710(k) and 40 CFR 60.2710(l). 40 CFR 63.1350(d), (k), (n), and (p)(1) 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;

(I) Title V Operating Permits—40 CFR 60.2805;

(J) Table 1 through Table 9. The compliance dates for the increments of progress are—

1. For Increment 1, the final control plan must be submitted within one (1) year of the effective date of this rule; and

2. For Increment 2, for CISWI units that commenced construction on or before June 4, 2010, the final compliance date is February 7, 2018; and

(K) Other requirements:

1. Units applicable under paragraph (1)(A)1. of this rule must comply with the emission limits as follows:

A. For energy recovery units, Table 7 of 40 CFR 60 subpart DDDD as specified in 10 CSR 10-6.030(22);

B. For waste burning kilns, Table 8 of

40 CFR 60 subpart DDDD as specified in 10 CSR 10-6.030(22); and

C. For small remote incinerators, Table 9 of 40 CFR 60 subpart DDDD as specified in 10 CSR 10-6.030(22);

2. Units applicable under paragraph (1)(A)2. of this rule, Table 2 of 40 CFR 60 subpart DDDD as specified in 10 CSR 10-6.030(22); and

3. Units applicable under paragraph (1)(A)3. of this rule, Table 6 of 40 CFR 60 subpart DDDD or Table 1 of 40 CFR 60 subpart CCCC as specified in 10 CSR 10-6.030(22), whichever is more stringent.

(4) Reporting and Record Keeping. The provisions of 40 CFR 60.2740 through 60.2800 and 40 CFR 60.2870, apply as specified in 10 CSR 10-6.030(22). If the owner or operator of a waste-burning kiln chooses to switch to and comply with the equivalent production-based mercury emission limit in subparagraph (3)(K)1.B. of this rule, it shall also keep records of all data collected from the continuous flow rate monitoring system required by 40 CFR 63 .1350(n), all data collected from the clinker production monitoring system required by 40 CFR 63.1350(d), and all calculated thirty (30)-operating day rolling average values derived from the mercury monitoring system. Units in the waste-burning kiln subcategory complying with the equivalent production-based mercury emission limit in subparagraph (3)(K)1.B. of this rule must also report all deviations from the equivalent production-based mercury limit in accordance with 40 CFR 60.2740 through 40 CFR 60.2800. 40 CFR 63.1350(d), and (n) promulgated as of July 1, 2018 and 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.

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

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed July 12, 2013, effective March 30, 2014. Amended: Filed May 9, 2018, effective Feb. 28, 2019.*

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

**10 CSR 10-6.165 Restriction of Emission of Odors**

*PURPOSE: This rule restricts the emission of*



excessive odorous matter. The evidence supporting the need for this rule, per 536.016, RSMo, are minutes from a May 28, 2009, Missouri Air Conservation Commission meeting, letters from Washington University in St. Louis School of Law and the Attorney General's Office dated October 6, 2006, and odor workgroup meeting notes from 2007.

(1) Applicability. This rule shall apply to any person that causes, permits, or allows emission of odorous matter throughout the state of Missouri, except—

(A) The provisions of section (3) of this rule shall not apply to the emission of odorous matter from the pyrolysis of wood in the production of charcoal in a Missouri-type charcoal kiln;

(B) The provisions of section (3) of this rule shall not apply to the emission of odorous matter from the raising and harvesting of crops nor from the feeding, breeding, and management of livestock or domestic animals or fowl with the exception of Class IA concentrated animal feeding operations; and

(C) The provisions of this rule shall not apply to emissions of odorized natural gas, or the chemicals used to achieve the regulated odorization of natural gas, inherent to the operations of a natural gas utility.

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

(3) General Provisions. No person may cause, permit, or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one (1) volume of odorous air is diluted with seven (7) volumes of odor-free air for two (2) separate trials not less than fifteen (15) minutes apart within the period of one (1) hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

(A) Control of Odors from Class IA Concentrated Animal Feeding Operations. Notwithstanding any provision in any other regulation to the contrary, all Class IA concentrated animal feeding operations shall operate under an odor control plan describing measures that are necessary to maintain compliance with the odor performance standard described in section (3). All new Class IA concentrated animal feeding operations and any operation that expands to become a Class

IA concentrated animal feeding operation shall obtain approval from the department for an odor control plan at least sixty (60) days prior to commencement of operation.

1. The odor control plan shall contain the following:

A. A listing of all sources of odor emissions and description of how odors are currently being controlled;

B. A listing of all potentially innovative and proven odor control options for reducing odor emissions. Odor control options may include odor reductions achieved through: odor prevention, odor capture and treatment, odor dispersion, add-on control devices, management practices, modifications to feed-stock or waste handling practices, or process changes;

C. A detailed discussion of feasible odor control options for odor emissions. The discussion shall include options determined to be infeasible. Determination of infeasibility should be well documented and based on physical, chemical, and engineering principles demonstrating that technical difficulties would preclude the success of the control option;

D. A ranking of feasible odor control options from most to least effective. Ranking factors shall include odor control effectiveness, expected odor reduction, energy impacts, and economic impacts;

E. An evaluation of the most effective odor control options. Energy, environmental, and economic impacts shall be evaluated on a case-by-case basis;

F. Description of the odor control options to be implemented to reduce odor emissions;

G. A schedule for implementation. The schedule shall establish interim milestones in implementing the odor control plan prior to the implementation deadline if the plan is not implemented at one time; and

H. An odor monitoring plan.

2. The Missouri Department of Natural Resources' Air Pollution Control Program shall review and approve or disapprove the odor control plan.

A. After the program receives an odor control plan, they shall perform a completeness review. Within thirty (30) days of receipt, the program shall notify the plan originator if the plan contains all the elements of a complete odor control plan. If found incomplete, the program shall provide the originator a written explanation of the plan's deficiencies.

B. Within sixty (60) days after determining an odor control plan submittal is deemed complete, the program shall approve or disapprove the plan. During this sixty (60)-day technical review period, the program may request additional information needed for review. If the plan is disapproved, the program shall give the plan originator a written evaluation explaining the reason(s) for disapproval.

(B) Existing odor control plans shall be amended within thirty (30) calendar days of either—

1. A determination by the staff director that there has been a violation of any requirement of this rule; or

2. A determination by the staff director that an amended odor control plan is necessary to address recurring odor emissions.

(4) Reporting and Record Keeping. Odor control plans shall be reviewed and updated as necessary a minimum of every five (5) years from the date last approved or when a modification occurs. In lieu of a full plan update, a letter may be provided to the department stating that a review was performed and the existing odor control plan is adequate. This review letter or odor control plan update shall be due to the department six (6) months before the current odor control plan expires or at least thirty (30) days prior to the modification occurring with the following provisions:

(A) All existing odor control plans shall be updated by March 31, 2011; and

(B) Any person may petition the department to be removed from the odor control plan requirement based on documentation that the odor source has been removed.

(5) Test Methods. Measurements shall be made with a Nasal Ranger as manufactured by St. Croix Sensory, Inc. or by a similar instrument or technique that will give substantially similar results, or as approved by the department.

*AUTHORITY: section 643.050, RSMo Supp. 2013.\* Original rule filed April 14, 2010, effective Nov. 30, 2010. Amended: Filed Feb. 18, 2014, effective Sept. 30, 2014.*

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

**10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin**

*PURPOSE: This rule restricts the emission of*



particulate matter to the ambient air beyond the premises of origin.

(1) Applicability. This rule applies to any operation, process, or activity resulting in fugitive particulate matter (PM) emissions throughout the state of Missouri, with the following exceptions:

(A) Fugitive PM emissions from unpaved public roads located in areas not designated as nonattainment for PM;

(B) Agricultural operations including tilling, planting, cultivating or harvesting within a field, the moving of livestock on foot, or the hauling of produce within the confines of a farm;

(C) Fugitive PM emissions from driveways limited to residential use; and

(D) Fugitive PM emissions in violation of this rule which, according to the director, occurred due to unusual or adverse weather conditions. These conditions may include, but are not limited to, high winds, extended dry weather periods, and extreme cold weather periods.

(2) Definitions.

(A) Control measure—Any means which reduce the quantity of a pollutant that is emitted into the air.

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

(C) Facility—All contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

(D) Fugitive particulate matter emissions—Any particulate matter emissions which could not reasonably be passed through a stack, chimney, vent, or other functionally equivalent opening.

(E) Nonattainment area (NAA)—Any geographic area of the United States which has been designated as nonattainment under section 107 of the Clean Air Act and described in 40 CFR 81.

(F) Particulate matter—Any liquid or solid material, except uncombined water, that exists in a finely divided form with an aerodynamic diameter smaller than one hundred micrometers (100  $\mu\text{m}$ ).

(3) General Provisions.

(A) Restrictions to Limit Fugitive Particulate Matter Emissions.

1. No person shall cause or allow fugitive particulate matter emissions to—

A. Go beyond the premises of origin in such quantities that the particulate matter

may be found on surfaces beyond the property line of origin due to the following activities:

(I) Handling, transporting, or storing of any material;

(II) Construction, repair, cleaning, or demolition of a building or its appurtenances;

(III) Construction or use of a road, driveway, or open area; or

(IV) Operation of a commercial or industrial facility; or

B. Remain visible in the ambient air beyond the property line of origin.

2. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.

(B) Should the director determine that non-compliance with subsection (3)(A) has occurred at a location, the director may require reasonable control measures, as may be necessary. These measures may include, but are not limited to, the following:

1. Revision of procedures involving construction, repair, cleaning, and demolition of buildings and their appurtenances that produce particulate matter emissions;

2. Paving or frequent cleaning of roads, driveways, and parking lots;

3. Application of dust-free surfaces;

4. Application of water; and

5. Planting and maintenance of vegetative ground cover.

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

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

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed March 5, 1990, effective Nov. 30, 1990. Amended: Filed March 18, 1996, effective Oct. 30, 1996. Amended: Filed Jan. 2, 1998, effective Aug. 30, 1998. Amended: Filed June 27, 2018, effective March 30, 2019.*

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

### 10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

*PURPOSE: This rule allows the director to obtain air contaminant emissions data upon request.*

(1) Applicability. This rule applies to all sources and persons responsible for the emission of air contaminants throughout the state of Missouri.

(2) Definitions.

(A) Air contaminant—Any particulate matter or any gas or vapor or any combination of them.

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

(C) Facility—All contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

(D) Qualified personnel—A reputable person or group possessing the necessary experience, knowledge, education, training, or certification to accurately conduct a given emission test.

(E) Source—Any governmental, institutional, commercial, or industrial structure, plant, building, or facility that emits or has the potential to emit any regulated air pollutant under the Clean Air Act (CAA).

(3) General Provisions.

(A) The director may require any person or owner/operator of a source responsible for the emission of air contaminants to conduct tests to determine the quantity or nature, or both, of their air contaminant emissions.

1. The director may specify test methods to be used and observe testing as it is performed.

2. All tests must be performed by qualified personnel.

3. The director shall be provided a copy of the test results in writing and signed by the person responsible for the tests.

(B) The director may conduct tests of emissions of air contaminants from any source. Upon the director's request, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.

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

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

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed Aug. 2, 1990, effective Dec. 31, 1990. Amended: Filed March 27, 2018, effective Nov. 30, 2018.*

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



**10 CSR 10-6.190 Sewage Sludge and Industrial Waste Incinerators**

*Editor's Note: On March 29, 1993 the Circuit Court of Cole County found that 10 CSR 10-6.190 was void since it exceeds the statutory cost analysis requirements of sections 536.200 and 536.205, RSMo.*

**10 CSR 10-6.191 Sewage Sludge Incinerators**

*PURPOSE: This rule incorporates by reference the federal regulatory requirements for existing sewage sludge incineration units in Missouri. The evidence supporting the need for this proposed rulemaking, per 536.016, RSMo, is Federal Register Notice 76 FR 15372, dated March 21, 2011.*

*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 to each sewage sludge incineration (SSI) unit, as defined in section (2) of this rule, for which construction was commenced on or before October 14, 2010, except as provided in subsection (1)(C) of this rule.

(B) If the owner or operator of an SSI unit makes physical or operational changes to an SSI unit for which construction commenced on or before September 21, 2011, primarily to comply with this rule, 10 CSR 10-6.070 New Source Performance Regulations does not apply to that unit.

(C) Exemptions to this rule are as follows:

1. Combustion units that incinerate sewage sludge and are not located at a wastewater treatment facility designed to treat domestic sewage sludge. Owners or operators of combustion units claiming exemption under this paragraph must notify the director; and

2. Any SSI unit that becomes subject to 10 CSR 10-6.070 New Source Performance Regulations because the owner or operator made changes after September 21, 2011, that meet the definition of modification, as defined in section (2) of this rule.

**(2) Definitions.**

(A) The provisions of 40 CFR 60.5250, promulgated as of July 1, 2011, shall apply and are hereby incorporated by reference in this rule, as published by the Office of Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

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

(3) General Provisions. The following references to 40 CFR 60.5085 through 60.5225, 40 CFR 60.5240 through 60.5245, and 40 CFR 60, Subpart M Tables 1 through 6, promulgated as of July 1, 2011, shall apply and are hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

(A) Increments of Progress—40 CFR 60.5085 through 60.5125;

(B) Operator Training and Qualifications—40 CFR 60.5130 through 60.5160;

(C) Emission Limits, Emission Standards, and Operating Limits and Requirements—40 CFR 60.5165 through 60.5181;

(D) Initial Compliance Requirements—40 CFR 60.5185 through 60.5200;

(E) Continuous Compliance Requirements—40 CFR 60.5205 through 60.5215;

(F) Performance Testing, Monitoring, and Calibration Requirements—40 CFR 60.5220 through 60.5225;

(G) Title V Operating Permit—40 CFR 60.5240 through 60.5245; and

(H) Table 1 through Table 6. The compliance dates for the increments of progress are—

1. For Increment 1, submit final control plan within one (1) year of the effective date of this rule; and

2. For Increment 2, final compliance by March 21, 2016.

(4) Reporting and Record Keeping. The provisions of 40 CFR 60.5230 through 40 CFR 60.5235, promulgated as of July 1, 2011, shall apply and are hereby incorporated by reference in this rule, as published by the Office of Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

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

*AUTHORITY: section 643.050, RSMo Supp. 2012.\* Original rule filed Aug. 27, 2012, effective May 30, 2013.*

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

**10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators**

*PURPOSE: This rule establishes emission limits for existing hospital, medical, and infectious waste incinerators. The pollutants regulated include metals, particulate matter, acid gases, organic compounds, carbon monoxide, and opacity. This rule includes requirements for operator training and qualification, waste management, compliance and performance testing, monitoring, and reporting/record keeping.*

*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) Except as provided in subsection (1)(B) through (H) of this rule, this rule applies to each individual hospital or medical/infectious waste incinerator (HMIWI)—

1. For which construction was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998; or

2. For which construction was commenced after June 20, 1996 but no later than December 1, 2008, or for which modification is commenced after March 16, 1998 but no later than April 6, 2010.

(B) A combustor is not subject to this rule during periods when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned, provided the owner or operator of the combustor—

1. Notifies the director of an exemption claim; and

2. Keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

(C) Any co-fired combustor is not subject



to this rule if the owner or operator of the co-fired combustor—

1. Notifies the director of an exemption claim;

2. Provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

3. Keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

(D) Any combustor required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this rule.

(E) Any combustor which meets the applicability requirements under Subpart Cb, Ea, or Eb of 40 CFR 60 is not subject to this rule.

(F) Any pyrolysis unit is not subject to this rule.

(G) Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this rule.

(H) Physical or operational changes made to an HMIWI unit solely for the purpose of complying with this rule are not considered a modification and do not result in an HMIWI unit becoming subject to the provisions of 40 CFR 60, Subpart Ec.

(I) Facilities subject to this rule shall operate pursuant to a permit issued under the permitting authorities operating permit program.

(2) Definitions.

(A) The definitions of 40 CFR 60.31e apply as specified in 10 CSR 10-6.030(22).

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

(3) General Provisions. Owners and operators of HMIWI subject to this rule must comply with the provisions listed below. The following references to 40 CFR 60.33e through 60.37e and 40 CFR 60 Subpart Ce Tables 1A through 2B apply as specified in 10 CSR 10-6.030(22).

(A) Emission limits—40 CFR 60.33e;

(B) Operator training and qualification requirements—40 CFR 60.34e;

(C) Waste management plan—40 CFR 60.35e;

(D) Inspection—40 CFR 60.36e; and

(E) Compliance, performance testing, and monitoring—40 CFR 60.37e.

(4) Reporting and Record Keeping. Owners and operators of HMIWI subject to this rule must comply with the following reporting and record keeping provisions. The provisions of

40 CFR 60.38e apply as specified in 10 CSR 10-6.030(22).

(5) Test Methods. Test methods can be found in section (3) of this rule.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed Dec. 1, 1998, effective July 30, 1999. Amended: Filed Oct. 13, 2000, effective July 30, 2001. Amended: Filed Nov. 26, 2010, effective Aug. 30, 2011. Amended: Filed Nov. 1, 2013, effective July 30, 2014. Amended: Filed April 13, 2018, effective Jan. 30, 2019.*

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

**10 CSR 10-6.210 Confidential Information**

*PURPOSE: This rule provides procedures and conditions for handling confidential information.*

(1) Applicability. This rule shall apply to all business information requested to be designated confidential under Chapter 643, RSMo.

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

(3) General Provisions. Any information or records submitted or obtained pursuant to Chapter 643, RSMo, is subject to public disclosure unless a request for confidentiality is made by the person submitting the information or records and the request has been approved pursuant to the following procedures:

(A) Procedures.

1. An owner or operator who wishes to claim confidentiality for any information submitted pursuant to this rule or other rules of the commission should submit a claim of confidentiality when the information is initially submitted. Failure to submit a claim of confidentiality when the information is initially submitted may result in public disclosure.

2. The claim of confidentiality shall be accompanied by a justification that the information is entitled to confidential treatment.

3. When information claimed to be confidential is being submitted with a permit application, emissions report, or any other documentation containing information subject to public disclosure, a separate version that may be viewed by the public shall be provided by the owner or operator.

4. Upon receipt of a claim of confiden-

tiality, the director shall evaluate the claim and inform the owner or operator that the claim has been approved, or that a preliminary decision has been made to deny the claim in whole or in part. Until that time in which the claim is reviewed it shall be held in confidence.

5. If a claim of confidentiality is denied in the preliminary review, the owner or operator will have fifteen (15) days from the date of the denial letter to submit further justification or comments to the director for consideration in the final decision on confidentiality. The director shall inform the owner or operator of his/her final decision on whether the claim will be denied in whole or in part within ten (10) working days of receiving the owner or operator's further justification or comments.

6. The owner or operator may appeal the director's final decision to deny a claim of confidentiality, in whole or part, to the administrative hearing commission pursuant to 621.250, RSMo, and 10 CSR 10-1.030. Upon the timely filing of a notice of appeal, the confidentiality of the information shall be preserved until the entry of a final order by the commission.

7. If the commission's final decision is to deny the claim of confidentiality, in whole or in part, the director shall treat the information as subject to public disclosure unless the owner or operator files a timely action for judicial review pursuant to 536.110, RSMo. If a timely action for judicial review is filed, the confidentiality of the information shall be preserved until adjudication of the matter upon judicial review.

8. A claim of confidentiality under this rule shall be approved if—

A. The owner or operator has asserted a business confidentiality claim that has not expired by its terms or been withdrawn;

B. The owner or operator has satisfactorily shown that it has taken reasonable measures to protect the confidentiality of the information and that it intends to continue to take those measures;

C. The information is not, and has not been, reasonably obtained without the owner's or operator's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on a showing of special needs in a judicial or quasi-judicial proceeding);

D. No statute specifically requires public disclosure of the information;

E. The information is not emission data that is required to be reported to the U.S. Environmental Protection Agency under 40 CFR 51.15 with the exception of the following data elements which can be claimed to be confidential with justification the department approves:

(I) Activity/throughput (for each period reported);



- (II) Emission factor;
- (III) Winter throughput (percent);
- (IV) Spring throughput (percent);
- (V) Summer throughput (percent);
- (VI) Fall throughput (percent);
- (VII) Design capacity (including boiler capacity, if applicable) (MHDR);
- (VIII) Primary capture and control efficiencies (percent); and
- (IX) Total capture and control efficiency (percent); and

F. The owner or operator has satisfactorily shown that—

(I) Public disclosure of the information is likely to cause substantial harm to the business' competitive position; or

(II) The information was voluntarily submitted and if disclosed, the submitter would be reluctant to provide additional information to the director in the future. Information is voluntarily submitted if the facility has no statutory, regulatory, or contractual obligation to provide the information; or the director has no statutory, regulatory, or contractual authority to obtain the information under federal or state law; and

(B) Conditions for Any Disclosure.

1. Public request. Upon receipt of a request from a member of the public for release of any information submitted under a claim of confidentiality, and for which the claim has not been finally denied, the director shall inform both the person making the request and the owner or operator that the request for the information is denied or that a tentative decision has been made to release the information. A preliminary decision to release the information shall be treated in the same manner as a preliminary decision to deny a claim of confidentiality under paragraphs (3)(A)4.-8. of this rule.

2. Confidential and public information. If information entitled to confidentiality cannot reasonably be separated from information not entitled to confidentiality, all the information must be treated as subject to public disclosure.

3. Public release. The director and his/her designees shall not release to the public, or place in the public file, any information for which a claim of confidentiality has been made until the procedures under paragraphs (3)(A)4.-8. and (3)(B)1. of this rule have been observed.

4. Disclosure to local agencies. Information submitted under a claim of confidentiality, where the claim has not been finally denied, may be disclosed to local air pollution control agencies if—

A. The owner or operator is given prior notice fifteen (15) working days in which to obtain an order from a court of competent jurisdiction restraining or enjoining the disclosure to the local agency, and if no such order is obtained, or obtained and

later dissolved; or

B. The local agency has ordinances or regulations respecting the treatment of confidential business information that is equivalent to this rule, the director provides notice to the owner or operator that the information is being disclosed to the local agency, and the director informs the local agency that the information is subject to a claim of confidentiality.

5. Disclosure to administrator. Information submitted under a claim of confidentiality, where the claim has not been finally denied, may be disclosed to the administrator provided the administrator agrees, pursuant to 40 CFR 2.215, that the information will be kept confidential.

6. Subpoenas for confidential information. The director shall respond to subpoenas and discovery requests for information submitted under a claim of confidentiality, if the claim has not been finally denied, in a manner that is designed to preserve the claim of confidentiality until a confidentiality determination is made by a court or other tribunal of competent jurisdiction.

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

(5) Test Methods. (Not Applicable)

*AUTHORITY: section 643.050, RSMo Supp. 2013.\* Original rule filed Sept. 2, 1993, effective May 9, 1994. Amended: Filed May 2, 2016, effective Dec. 30, 2016.*

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

**10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants**

*PURPOSE: This rule specifies the maximum allowable opacity of visible air contaminant emissions and requires the use of continuous monitoring systems (CMS) on certain air contaminant emission units.*

*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 all sources of visible emissions, excluding water vapor, throughout the state of Missouri with the exception of the following:

- (A) Internal combustion engines;
- (B) Wood burning stoves or fireplaces used for heating;

(C) Fires used for recreational or ceremonial purposes or fires used for the noncommercial preparation of food by barbecuing;

(D) Fires used solely for the purpose of fire-fighter training;

(E) Smoke generating devices when a required permit (under 10 CSR 10-6.060 or 10 CSR 10-6.065) has been issued or a written determination that a permit is not required has been obtained;

(F) The pyrolysis of wood for the production of charcoal in batch-type charcoal kilns regulated under 10 CSR 10-6.330;

(G) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher;

(H) Emission units specifically exempt or regulated under 10 CSR 10-6.070;

(I) Any open burning that is exempt from open burning rule 10 CSR 10-6.045;

(J) Emission units regulated under 40 CFR 63 subpart DDDDD—*National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters* that meet one (1) of the following criteria:

1. Constructed or reconstructed after June 4, 2010;

2. The unit is subject to a ten percent (10%) opacity limit as described in Table 4 of 40 CFR 63 subpart DDDDD; or

3. The unit is in Table 2 of 40 CFR 63 subpart DDDDD and has a filterable particulate matter limitation of less than or equal to 4E-02 pounds per million British thermal units (lbs/MMBtu);

(K) Fugitive emissions regulated under 10 CSR 10-6.170;

(L) Any emission unit burning only natural gas, landfill gas, propane, liquefied petroleum gas, digester gas, or refinery gas;

(M) Emission units regulated under 40 CFR 63 subpart JJJJJ—*National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* that meet all of the following criteria:

1. Constructed or reconstructed after June 4, 2010;

2. In compliance with the 3.0E-02 lbs/MMBtu filterable particulate matter emission limit described in Table 1 of 40 CFR 63 subpart JJJJJ or maintaining opacity to less than or equal to ten percent (10%) as described in Table 3 of 40 CFR 63 subpart



JJJJJ; and

3. Demonstrating compliance with a continuous monitoring system (CMS), including a continuous emission monitoring system (CEMS), a continuous opacity monitoring system (COMS), or a continuous parameter monitoring system (CPMS);

(N) Emission units regulated under 40 CFR 63 subpart UUUUU—*Mercury and Air Toxics Standards*, and demonstrating compliance with a particulate matter continuous emission monitoring system;

(O) Emission units that are contained within and emit only within a building space. This does not include emission units with a capture device vented outside the building space; and

(P) Emission units subject to an equivalent or more restrictive emission limit under—

1. 10 CSR 10-6.075; or
2. Any federally enforceable permit.

(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) Capacity factor—The ratio (expressed as a percentage) of a power generating unit's actual annual electric output (expressed in MWe-hr) divided by the unit's nameplate capacity multiplied by eight thousand seven hundred sixty (8,760) hours.

(C) Capture device—A hood, enclosed room, floor sweep, or other means of collecting air pollutants into a duct.

(D) Continuous monitoring system (CMS)—A comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with this rule on a continuous basis as defined by the regulation.

(E) Continuous opacity monitoring system (COMS)—All equipment required to continuously measure and record the opacity of emissions within a stack or duct. COMS consists of sample interface, analyzer, and data recorder components and usually includes, at a minimum, transmissometers, transmissometer control equipment, and data transmission, acquisition, and recording equipment.

(F) Digester gas—A gas, consisting of mostly methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>), generated during anaerobic digestion when microorganisms break down organic

materials in the absence of oxygen.

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

(H) Emission unit—any part or activity of a facility that emits or has the potential to emit any regulated air pollutant.

(I) Excess emissions—The opacity emissions which exceed the requirements of any applicable emission limit within this rule.

(J) Existing emission unit—Any emission unit in operation, installed, or under construction prior to July 11, 1977 that has not been subsequently altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance. The cost of installing equipment designed principally for the purpose of air pollution control is not to be considered a cost of altering, repairing, or rebuilding an existing emission unit.

(K) Facility—All contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

(L) Fugitive emissions—Those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

(M) Incinerator—Any article, machine, equipment, contrivance, structure, or part of a structure used to burn refuse or to process refuse material by burning other than by open burning.

(N) Internal combustion engine—Any engine in which power, produced by heat and/or pressure developed in the engine cylinder(s) by burning a mixture of fuel and air, is subsequently converted to mechanical work by means of one (1) or more pistons.

(O) Kansas City metropolitan area—The geographical area comprised of Jackson, Cass, Clay, Platte, Ray, and Buchanan counties.

(P) Landfill gas—A gaseous byproduct of landfills, consisting of mostly methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>), produced by microorganisms within a landfill under anaerobic conditions.

(Q) Liquefied petroleum gas—A gas consisting of propane, propylene, butane, and butylenes.

(R) Natural gas—A naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions.

(S) New emission unit—Any emission unit

which is not permanently shutdown or an existing emission unit as defined in subsection (2)(I) of this rule.

(T) 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.

(U) Open burning—The burning of any materials where air contaminants resulting from combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. For purposes of this definition, a chamber shall be regarded as enclosed, when, during the time combustion takes place, only those apertures, ducts, stacks, flues, or chimneys, as are necessary to provide combustion air and to permit the escape of exhaust gases, are open.

(V) Outstate area—Any area throughout the state of Missouri except the City of St. Louis and St. Charles, St. Louis, Jefferson, Franklin, Clay, Cass, Buchanan, Ray, Jackson, Platte, and Greene counties.

(W) Particulate matter—Any material, except uncombined water, that exists in a finely divided form as a liquid or solid that enters the atmosphere as a direct emission from a stack or an open source.

(X) 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.

(Y) Qualified observer—An individual or device with a current certification to measure opacity using one (1) of the methods listed in section (5) of this rule.

(Z) Refinery gas—Any gas that is generated as a byproduct at a petroleum refinery or petrochemical plant and that is combusted separately or in combination with any type of gas.

(AA) Six (6)-minute period—A three-hundred-sixty (360)-consecutive-second time interval. Six (6)-minute block averages shall be utilized for COMS data per the provisions of Appendix B to 40 CFR 60, Performance Specification 1, as specified in 10 CSR 10-6.030(22).

(BB) Smoke generating device—A specialized piece of equipment which is not an integral part of a commercial, industrial, or manufacturing process and whose sole purpose is the creation and dispersion of fine solid or liquid particles in a gaseous medium.

(CC) Springfield-Greene County area—





The geographical area contained within Greene County.

(DD) St. Louis metropolitan area—The geographical area comprised of St. Louis, St. Charles, Jefferson, and Franklin counties and the City of St. Louis.

(EE) Visible emission—Any discharge of an air contaminant, including condensables, which reduces the transmission of light or obscures the view of an object in the background.

(3) General Provisions.

(A) Visible Emissions Limitations.

1. Maximum Visible Emissions Limitations. Unless specified otherwise in this rule, no owner or operator shall cause or permit to be discharged into the atmosphere from any emission unit, not exempted under this rule, any visible emissions greater than the limitations in the following table for any continuous six (6)-minute period as measured by the test method used to demonstrate compliance with this rule:

| Area of State                  | Visible Emission Limitations |                    |
|--------------------------------|------------------------------|--------------------|
|                                | Existing Emission Units      | New Emission Units |
| Kansas City Metropolitan Area  | 20%                          | 20%                |
| St. Louis Metropolitan Area    | 20%*                         | 20%                |
| Springfield-Greene County Area | 40%                          | 20%                |
| Outstate Area                  | 40%                          | 20%                |

\*Exception: Existing emission units in the St. Louis metropolitan area that are not incinerators and emit less than twenty-five (25) lbs/hr of particulate matter shall be limited to forty percent (40%) opacity.

2. Visible Emissions Limitations, Exceptions Allowed In One (1) Continuous Six (6)-Minute Period. The visible emissions limitations in the following table shall be allowed for one (1) continuous six (6)-minute period in any sixty (60) minutes as measured by the test method used to demonstrate compliance with this rule:

| Area of State                  | Visible Emission Limitations, Exceptions |                    |
|--------------------------------|--|--------------------|
|                                | Existing Emission Units                  | New Emission Units |
| Kansas City Metropolitan Area  | 60%**                                    | 60%**              |
| St. Louis Metropolitan Area    | 40%                                      | 40%                |
| Springfield-Greene County Area | 60%**                                    | 60%**              |
| Outstate Area                  | 60%                                      | 60%                |

\*\*This exception does not apply to existing and new incinerators in the Kansas City metropolitan area and Springfield-Greene County.

(B) Failure to meet the requirements of subsection (3)(A) solely because of the presence of uncombined water is not a violation of this rule.

(C) Compliance Determination. Compliance for any emission unit to which this rule applies shall be determined from opacity measurements taken in accordance with subsection (3)(D) or (3)(E) of this rule. If opacity measurements taken by a non-department qualified observer differ from visual measurements taken by a qualified department observer, the qualified department observer's opacity measurements shall be used to determine compliance.

(D) Coal-fired steam generating units with maximum heat input rate greater than two hundred fifty (250) million British thermal units (Btus)/hour shall install a CMS in accordance with subsection (3)(F) of this rule unless the emission unit—

1. Is exempt under section (1) of this rule; or

2. Has an annual boiler capacity factor of thirty percent (30%) or less.

(E) Unless otherwise specified in this rule, owners or operators shall have the opacity of visible emissions determined by one (1) of the methods in section (5) of this rule.

(F) Continuous Monitoring Requirements. Sources with emission units that are required to install a CMS must select one (1) of the following options:

1. Install, calibrate, and maintain a COMS according to the following conditions:

A. Source operating time includes any time fuel is being combusted and/or a fan is being operated;

B. Cycling time. Cycling times include the total time a monitoring system requires to sample, analyze, and record an emission measurement. Continuous monitoring systems for measuring opacity shall complete a minimum of one (1) cycle of operation (sampling, analyzing, and data recording) for each successive ten (10)-second period;

C. Certification. All COMS shall be certified by the director after review and acceptance of a demonstration of conformance with 40 CFR 60, Appendix B, Performance Specification 1, as specified in 10 CSR 10-6.030(22);

D. Audit authority. All COMS shall be subject to audits conducted by the department, and all COMS records shall be made available upon request to department personnel; or

2. Install, calibrate, and maintain an alternative CMS according to the following conditions:

A. All alternative CMS, monitoring systems requirements, system locations, reporting and record keeping requirements, and procedures for operation and maintenance must be approved by the staff director and the U.S. Environmental Protection Agency (EPA); and incorporated into this rule and the state implementation plan (SIP)

prior to implementation;

B. Demonstrate that a requirement of paragraph (3)(F)1. or section (4) of this rule cannot be practically met; and

C. Demonstrate that the alternative CMS produces results that adequately verify compliance.

(G) If a CMS is malfunctioning, a non-department qualified observer measurement may be used as a temporary substitute.

(4) Reporting and Record Keeping.

(A) COMS Reporting. Owners or operators required to install COMS shall submit a quarterly written report to the director. All quarterly reports shall be postmarked no later than the thirtieth day following the end of each calendar quarter and include the following emissions data:

1. A summary including total time for each cause of excess emissions and/or monitor downtime;

2. Nature and cause of excess emissions, if known;

3. The six (6)-minute average opacity values greater than the opacity emission requirements (The average of the values shall be obtained by using the procedures specified in the Reference Method used to determine the opacity of the visible emissions);

4. The date and time identifying each period during which the COMS was inoperative (except for zero and span checks), including the nature and frequency of system repairs or adjustments that were made during these times; and

5. If no excess emissions have occurred during the reporting period and the COMS has not been inoperative, repaired, or adjusted, this information shall be stated in the report.

(B) COMS Records to be Maintained. Owners or operators of affected emission units shall maintain a file (hard copy or electronic version) of the following information for a minimum of two (2) years from the date the data was collected:

1. All information reported in the quarterly summaries; and

2. All six (6)-minute opacity averages and daily Quality Assurance (QA)/Quality Control (QC) records.

(5) Test Methods.

(A) Method 9—Visual Determination of the Opacity of Emissions from Stationary Sources of 40 CFR 60, Appendix A-4, as specified in 10 CSR 10-6.030(22).

(B) Photogrammetric opacity measurement in accordance with EPA Alternative Test Method Decision Letter Number ALT-082, dated May 15, 2012 as published by EPA and hereby incorporated by reference in this rule. Copies can be obtained from the Office of



Air Quality Planning and Standards, Measurement Technology Group, Mail Drop: E143-02, Research Triangle Park, NC 27711. This rule does not incorporate any subsequent amendments or additions.

(C) A modification of the test methods listed in subsections (5)(A) or (5)(B) of this rule. Any modification of a test method listed in subsections (5)(A) or (5)(B) of this rule must be approved by the director and the EPA; and incorporated into this rule and the SIP prior to implementation.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed March 31, 1999, effective Nov. 30, 1999. Amended: Filed Feb. 28, 2002, effective Nov. 30, 2002. Amended: Filed Feb. 4, 2008, effective Sept. 30, 2008. Amended: Filed March 29, 2016, effective Dec. 30, 2016. Amended: Filed June 27, 2018, effective March 30, 2019.*

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

### 10 CSR 10-6.230 Administrative Penalties

*PURPOSE: This rule establishes the procedures for assessment of administrative penalties.*

(1) Applicability. This rule applies to installations and individuals throughout Missouri that are subject to sections 643.010–643.250, RSMo or any rule of the Missouri Air Conservation Commission or any site that is permitted by the Missouri Air Pollution Control Program.

(2) Definitions.

(A) Definitions for key words used in this rule may be found in 10 CSR 10-6.020(2).

(B) Additional definitions specific to this rule are as follows:

1. Conference, conciliation and persuasion—A process of verbal or written communications, including but not limited to meetings, reports, correspondence or telephone conferences between authorized representatives of the department and the alleged violator. The process shall, at minimum, consist of one offer to meet with the alleged violator tendered by the department. During any such meeting, the department and the alleged violator shall negotiate in good faith to eliminate the alleged violation and shall attempt to agree upon a plan to achieve compliance;

2. Economic benefit—Any monetary gain which accrues to a violator as a result of noncompliance;

3. Gravity-based assessment—The degree of seriousness of a violation taking

into consideration the risk to human health and the environment posed by the violation and considering the extent of deviation from sections 643.010–643.250, RSMo;

4. Minor violation—A violation which possesses a small potential to harm the environment or human health or cause pollution, was not knowingly committed, and is not defined by the United States Environmental Protection Agency as other than minor;

5. Multi-day violation—A violation which has occurred on or continued for two (2) or more consecutive or nonconsecutive days; and

6. Multiple violation penalty—The sum of individual administrative penalties assessed when two (2) or more violations are included in the same complaint or enforcement action.

(3) General Provisions.

(A) Pursuant to section 643.085, RSMo, and in addition to any other remedy provided by law, upon determination by the department that a provision of sections 643.010–643.250, RSMo, or a standard, limitation, order or rule promulgated, or a term or condition of any permit has been violated, the director may issue an order assessing an administrative penalty upon the violator. The amount of the administrative penalty will be determined according to section (6) of this rule. In no event may the total penalty assessed per day of violation exceed the statutory maximum specified in section 643.151, RSMo.

(B) An administrative penalty shall not be imposed until the department has sought to resolve the violations through conference, conciliation and persuasion and shall not be imposed for minor violations. If the violation is resolved through conference, conciliation and persuasion, no administrative penalty shall be assessed unless the violation has caused, or had the potential to cause, a risk to human health or to the environment, or has caused or has potential to cause pollution, or was knowingly committed, or is not a minor violation.

(C) An order assessing an administrative penalty shall be served upon the operator, owner or appropriate representative through United States Postal Service certified mail, return receipt requested, a private courier or messenger service which provides verification of delivery or by hand delivery to the operator's or owner's residence or place of business. An order assessing an administrative penalty shall be considered served if verified receipt is made by the operator, owner or appropriate representative. A refusal to accept, or a rejection of certified mail, pri-

vate courier or messenger service delivery or by hand delivery of an order assessing an administrative penalty constitutes service of the order.

(D) The director may at any time withdraw without prejudice any administrative penalty order.

(E) An order assessing an administrative penalty shall describe the nature of the violation(s), the amount of the administrative penalty being assessed and the basis of the penalty calculation.

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

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

(6) Determination of Penalties. The amount of an administrative penalty will involve the application of a gravity-based assessment under subsection (6)(A) and may involve additional factors for multiple violations, (6)(B), multi-day violations, (6)(C) and economic benefit resulting from noncompliance, (6)(D). The resulting administrative penalty may be further adjusted as specified under (6)(E).

(A) Gravity-Based Assessment. The gravity-based assessment is determined by evaluating the potential for harm posed by the violation and the extent to which the violation deviates from the requirements of the Missouri Air Conservation Law.

1. Potential for harm. The potential for harm posed by a violation is based on the risk to human health, safety or the environment or to the purposes of implementing the Missouri Air Conservation Law and associated rules or permits.

A. The risk of exposure is dependent on both the likelihood that humans or the environment may be exposed to contaminants and the degree of potential exposure. Penalties will reflect the probability the violation either did result in or could have resulted in a release of contaminants in the environment, and the harm which either did occur or would have occurred if the release had in fact occurred.

B. Violations which may or may not pose a potential threat to human health or the environment, but which have an adverse effect upon the purposes of or procedures for implementing the Missouri Air Conservation Law and associated rules or permits may be assessed a penalty.



C. The potential for harm shall be evaluated according to the following degrees of severity:

(I) Major. The violation poses or may pose a substantial risk to human health and safety or to the environment, or has or may have a substantial adverse effect on the purposes of or procedures for implementing the Missouri Air Conservation Law and associated rules and/or permits;

(II) Moderate. The violation poses or may pose a significant risk to human health and safety or to the environment, or has or may have a significant adverse effect on the purposes of or procedures for implementing the Missouri Air Conservation Law and associated rules and/or permits; and

(III) Minor. The violation does not pose significant or substantial risk to human health and safety or to the environment, was not knowingly committed, and is not defined by the United States Environmental Protection Agency as other than minor.

2. Extent of deviation. The extent of deviation may range from slight to total disregard of the requirements of the Missouri Air Conservation Law and associated rules and/or permits. The assessment will reflect this range and will be evaluated according to the following degrees of severity:

A. Major. The violator has deviated substantially from the requirements of the Missouri Air Conservation Law, associated rules, or permits resulting in substantial non-compliance;

B. Moderate. The violator has deviated significantly from the requirements of the Missouri Air Conservation Law, associated rules, or permits resulting in significant non-compliance; and

C. Minor. The violator has deviated slightly from the requirements of the Missouri Air Conservation Law, associated rules, or permits that does not result in substantial or significant non-compliance; most provisions were implemented as intended; the violation was not knowingly committed; and is not defined by the United States Environmental Protection Agency as other than minor.

3. Gravity-based penalty assessment matrix. The matrix that follows will be used to determine the gravity-based assessment portion of the administrative penalty. Potential for harm and extent of deviation form the axes of the matrix. The penalty range selected may be adapted to the circumstances of a particular violation.

**Gravity-Based Penalty Assessment Matrix**

| Potential for Harm | Extent of Deviation |                    |                    |
|--------------------|---------------------|--------------------|--------------------|
|                    | Major               | Moderate           | Minor              |
| Major              | \$10,000 to \$8,750 | \$8,750 to \$7,500 | \$7,500 to \$6,250 |
| Moderate           | \$6,250 to \$5,000  | \$5,000 to \$3,750 | \$3,750 to \$2,500 |
| Minor              | \$2,500 to \$1,250  | \$1,250 to \$500   | \$0                |

(B) Multiple Violation Penalty. Penalties for multiple violations may be determined when a violation is independent of or substantially different from any other violation. The director may order a separate administrative penalty for that violation as set forth in this rule.

(C) Multi-Day Penalty. Penalties for multi-day violations may be determined when the director has concluded that a violation(s) has continued or occurred for more than one (1) day. Multi-day penalty assessments will be determined by using the Gravity-Based Assessment Matrix in paragraph (6)(A)3. The director may seek penalties for each day of noncompliance not to exceed the amount of the civil penalty specified in section 643.151, RSMo.

(D) Economic Benefit. Any economic benefits, including delayed and avoided costs that have accrued to the violator as a result of noncompliance, will be added to the penalty amount. The department using an economic benefit formula that provides a reasonable estimate of the economic benefit of noncompliance will make determination. Economic benefit may be excluded from the administrative penalty if—

1. The economic benefit is an insignificant amount;
2. There are compelling public concerns that would not be served by taking a case to trial; or
3. It is unlikely that the department would be able to recover the economic benefit in litigation based on the particular case.

(E) Adjustments. The department may add to or subtract from the total amount of the penalty after consideration of the following adjustments:

1. Recalculation of penalty amount. After the issuance of an order by the director, if new information about a violation becomes available which indicates that the original

penalty calculation may have been incorrect, the department may recalculate the penalty;

2. Good faith efforts to comply. The department may adjust a penalty amount downward if good faith efforts have been adequately documented by the violator. Good faith efforts include, but are not limited to, documentation that the violator has reported noncompliance or instituted measures to remedy the violation prior to detection by the department. However, good faith efforts to achieve compliance after agency detection are assumed and are not grounds for decreasing the penalty amount;

3. Culpability. In cases of heightened culpability which do not meet the standard of criminal activity, the penalty may be increased at the department's discretion, within the ranges of the matrix. Likewise, in cases where there is a demonstrable absence of culpability, the department may decrease the penalty. Lack of knowledge of the Missouri Air Conservation Law and any associated rule and/or permit shall not be a basis of decreased culpability. The following criteria will be used to determine culpability:

- A. How much control the violator had over the events constituting the violation;
- B. The foreseeability of the events constituting the violation;
- C. Whether the violator took reasonable precautions against the events constituting the violation;
- D. Whether the violator knew or should have known of the hazards associated with the conduct; and
- E. Whether the violator knew or should have known of the legal requirement which was violated. This criteria shall be used only to increase a penalty, not to decrease it;

4. History of noncompliance. Where there has been a history of noncompliance with the Missouri Air Conservation Law or any associated rule or permit, to a degree deemed significant due to frequency, similarity or seriousness of past violations, and considering the violator's response to previous enforcement actions, the department may increase the administrative penalty. No downward adjustment is allowed because of this factor;

5. Ability to pay. When a violator has adequately documented that payment of all or a portion of the penalty will preclude the violator from achieving compliance or from carrying out important remedial measures, the department may—

- A. Waive any of the administrative



penalty; or

B. Negotiate a delayed payment schedule, installment plan or penalty reductions with stipulated penalties; and

6. Other adjustment factors. This rule allows for other penalty adjustments based on fairness and equity not mentioned in this rule which may arise on a case-by-case basis.

(7) Proceeds from Administrative Penalties. The proceeds from any administrative penalty assessed in accordance with this rule shall be paid to the county treasurer of the county in which the violation(s) occurred for the use and benefit of the county schools within that county.

(8) Natural Resource Damages. Nothing in this rule shall be construed as satisfying any claim by the state for natural resource damages.

*AUTHORITY: sections 643.050 RSMo Supp. 1998 and 643.085, RSMo 1994.\* Original rule Sept. 11, 1992, effective July 8, 1993. Rescinded and readopted: Filed April 15, 1999, effective Nov. 30, 1999.*

*\*Original authority: 643.050, RSMo 1965, amended 1972, 1992, 1993, 1995 and 643.085, RSMo 1991, amended 1992, 1993.*

**10 CSR 10-6.240 Asbestos Abatement Projects—Registration, Notification and Performance Requirements**

(Rescinded September 30, 2004)

*AUTHORITY: section 643.050, RSMo Supp. 1992. Original rule filed Dec. 14, 1992, effective Sept. 9, 1993. Rescinded: Filed Jan. 12, 2004, effective Sept. 30, 2004.*

*Corvera Abatement Technologies, Inc. v. Air Conservation Commission and Missouri Department of Natural Resources, Case No. CV 197-985 CC. An action for declaratory judgment and injunctive relief to challenge the final rulemaking decision of the commission was taken to the Cole County Circuit Court. After a hearing conducted January 30, 1998, the circuit court issued an order on February 3, 1998, finding that 10 CSR 10-6.240 is void from its inception. The Missouri Department of Natural Resources was permanently enjoined from enforcing 10 CSR 10-6.240. A notice of appeal for this case was filed February 10, 1998.*

**10 CSR 10-6.241 Asbestos Projects—Registration, Abatement, Notification, Inspection, Demolition, and Performance Requirements**

*PURPOSE: This rule requires asbestos contractors to register with the department, to notify the department of each asbestos project, to allow the department to inspect asbestos projects, and to pay inspection fees. Each person who intends to perform asbestos projects in Missouri must register annually with the Missouri Department of Natural Resources' Air Pollution Control Program. Any person undertaking a demolition or asbestos project must submit a notification to the appropriate agency of the department for each asbestos project and each notification must be accompanied by a fee. Asbestos contractors must allow representatives of the department to conduct inspections of projects and must pay inspection fees.*

(1) Applicability.

(A) This rule applies to—

1. All persons that authorize, design, conduct, and work in asbestos projects; and

2. All persons that undertake demolitions or monitor air-borne asbestos and dispose of asbestos waste as a result of asbestos projects.

(B) Exemptions. The department may exempt a person from registration, certification, and certain notification requirements provided the person conducts asbestos projects solely at the person's own place of business as part of normal operations in the facility and also is subject to the requirements and applicable standards of the United States Environmental Protection Agency (EPA) and United States Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 promulgated as of July 1, 2018 and 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. This exemption shall not apply to asbestos contractors, to those subject to the requirements of the Asbestos Hazard Emergency Response Act (AHERA), and to those persons who provide a service to the public in their place(s) of business as the economic foundation of the facility. These shall include, but not be limited to, child daycare centers, restaurants, nursing homes, retail outlets, medical care facilities, hotels, and theaters. Business entities that have received state approved exemption status shall comply with all federal air sampling requirements for their planned renovation operations. The Asbestos

Hazard Emergency Response Act as published by the Department of Commerce and Trade October 1986 is 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.

(2) Definitions.

(A) Asbestos—The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolitetremolite.

(B) Asbestos abatement—The encapsulation, enclosure, or removal of asbestos-containing materials, in or from a facility, or air contaminant source; or preparation of regulated asbestos-containing material prior to demolition or renovation.

(C) Asbestos inspector— An individual who collects and assimilates information used to determine the presence and condition of asbestos-containing material in a facility or other air contaminant source. An asbestos inspector has to hold a diploma from a fully-approved EPA or Missouri-accredited AHERA inspector course and a high school diploma or its equivalent.

(D) Demolition—The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

(E) Regulated asbestos-containing material (RACM)—Defined as follows:

1. Friable asbestos material;

2. Category I nonfriable ACM that has become friable;

3. Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; or

4. Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this paragraph.

(F) Definitions. 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) Registration.

1. Any person that conducts an asbestos project shall register with the department. Business entities that qualify for exemption status from the state must reapply for exemption from registration.

2. The person shall apply for registration renewal on an annual basis, and two (2) months before the expiration date shall send



the application to the department for processing. The contractor registration application or business exemption information shall be submitted on the forms provided by the department.

3. Annually, the person submitting a registration application to the department shall remit a nonrefundable fee of one thousand dollars (\$1,000) to the department. Effective January 1, 2017, the registration fee is two thousand six hundred fifty dollars (\$2,650).

4. To determine eligibility for registration and registration renewal, the department may consider the compliance history of the applicant as well as that of all management employees and officers. The department may also consider the compliance record of any other entity of which those individuals were officers and management employees.

5. Registration may be denied for any one (1) or more of the following reasons:

A. Providing false or misleading statements in the application;

B. Failure to submit a complete application;

C. Three (3) or more citations or violations of existing asbestos regulations within the last two (2) years;

D. Three (3) or more violations of 29 CFR 1910.1001 or 29 CFR 1926.1101 within the last two (2) years;

E. Fraud or failure to disclose facts relevant to their application; and

F. Any other information which may affect the applicant's ability to appropriately perform asbestos work.

(B) Abatement Procedures and Practices.

1. Asbestos project contractors shall use only individuals that have been certified by the department in accordance with 10 CSR 10-6.250 and Chapter 643, RSMo on asbestos abatement projects.

2. At each asbestos project site the person shall provide the following information for inspection by the department:

A. Proof of current departmental registration;

B. Proof of current departmental occupational certification for those individuals on the project;

C. Most recent available air sampling results;

D. Current photo identification for all applicable individuals engaged in the project; and

E. Proof of passage of the training course for the air sampling technicians and photo identifications for air sampling technicians.

(C) Revocation of Registration. The director may deny, suspend, or revoke any person's registration obtained under section (3) of this rule if the director finds the person in

violation of sections 643.225–643.250, RSMo or Missouri rules 10 CSR 10-6.241 or 10 CSR 10-6.250 or any applicable federal, state, or local standard for asbestos abatement projects.

(D) Any person that authorizes an asbestos project, asbestos inspection, or any AHERA-related work shall ensure that Missouri registered contractors and certified individuals are employed, and that all post-notification procedures on the project are in compliance with this rule and 10 CSR 10-6.250 and Chapter 643, RSMo. Business entities that have exemption status from the state are exempt from using registered contractors and from post-notification requirements, when performing in-house asbestos abatement projects.

(E) Asbestos Project Notification. Any person undertaking an asbestos project shall submit a notification to the department for review at least ten (10) working days prior to the start of the project. Business entities with state-approved exemption status are exempt from notification except for those projects for which notification is required by the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAPS). The department may waive the ten (10)-working day review period upon request for good cause. To apply for this waiver, the person shall complete the appropriate sections of the notification form provided by the department. The person who applies for the ten (10)-working day waiver must obtain approval from the department before the project can begin.

1. The person shall submit the notification form provided by the department.

2. If an amendment to the notification is necessary, the person shall notify the department immediately by telephone or FAX. The department must receive the written amendment within five (5) working days following verbal agreement.

3. Asbestos project notifications shall state actual dates and times of the project, the on-site supervisor, and a description of work practices. If the person must revise the dates and times of the project, the person shall notify the department and the regional office or the appropriate local delegated enforcement agency at least twenty-four (24) hours in advance of the change by telephone or FAX and then immediately follow-up with a written amendment stating the change. The department must receive the written amendment within five (5) working days of the phone or FAX message.

4. A nonrefundable notification fee of one hundred dollars (\$100) will be charged for each project constituting one hundred sixty (160) square feet, two hundred sixty (260) linear feet, or thirty-five (35) cubic feet or greater. Effective January 1, 2017, the

notification fee is two hundred dollars (\$200). If an asbestos project is in an area regulated by an authorized local air pollution control agency, and the person is required to pay notification fees to that agency, the person is exempt from paying the state fees. Persons conducting planned renovation projects determined by the department to fall under EPA's 40 CFR part 61 subpart M as specified in 10 CSR 10-6.030(23) must pay this fee and the inspection fees required in subsection (3)(F) of this rule.

5. Emergency project. Any person undertaking an emergency asbestos project shall notify the department within twenty-four (24) hours of the onset of the emergency by telephone or by email and must receive departmental approval of emergency status. Business entities with state-approved exemption status are exempt from emergency notification for state-approved projects that are part of a NESHAPS planned renovation annual notification. If the emergency occurs after normal working hours or weekends, the person shall contact the Environmental Services Program. The notice shall provide—

A. A description of the nature and scope of the emergency;

B. A description of the measures immediately used to mitigate the emergency; and

C. A schedule for removal. Following the emergency notice, the person shall provide to the director a notification on the form provided by the department and submit it to the director within seven (7) days of the onset of the emergency. The amendment requirements for notification found in subsection (3)(E) of this rule are applicable to emergency projects.

(F) Inspections. There shall be a charge of one hundred dollars (\$100) per inspection for the first three (3) inspections of any asbestos project. Effective January 1, 2017, the inspection fee is two hundred dollars (\$200) per inspection for the first two (2) inspections. The department or the local delegated enforcement agency shall bill the person for that inspection(s) and the person shall submit the fee(s) within sixty (60) days of the date of the invoice, or sooner, if required by a local delegated enforcement agency within its area of jurisdiction.

(G) All information required under this rule must be submitted on the appropriate forms and contain accurate, legible information. Failure to provide the required information, failure to submit legible information, submission of false information, or failure to provide complete information as required, shall be a violation of this rule and may result in the director's denial or revocation of the forms submitted.

(H) Failure to comply with this rule is a



violation of this rule and Chapter 643, RSMo. Compliance with this rule does not relieve the participants from compliance with any other applicable federal and state rules, laws, standards, or building codes.

(I) Demolition. Effective January 1, 2017, a nonrefundable notification fee of one hundred dollars (\$100) will be charged for each demolition regulated under 10 CSR 10-6.080. If a demolition is in an area regulated by an authorized local air pollution control agency and the person is required to pay notification fees to that agency, the person is exempt from paying the state fees.

(4) Reporting and Record Keeping.

(A) Post-Notification.

1. Any person undertaking an asbestos project that requires notification according to subsection (3)(E) of this rule, on the department-provided form shall notify the department within sixty (60) days of the completion of the project. This notice shall include a signed and dated receipt for the asbestos waste generated by the project issued by the landfill named on the notification and any final clearance air monitoring results. The technician performing the analysis shall sign and date all reports of analyses.

2. Business entities are exempt from post-notification requirements, but shall keep records of waste disposal for department inspection.

(B) Additional Record Keeping. The contractor and the owner shall keep the air monitoring results for three (3) years and make the results available to representatives of the department upon request. All AHERA projects shall comply with EPA air monitoring requirements in 40 CFR part 763 promulgated as of July 1, 2018 and 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.

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

*AUTHORITY: section 643.225, RSMo 2016.\* Original rule 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.*

\*Original authority: 643.225, RSMo 1989, amended 2011, 2012.

**10 CSR 10-6.250 Asbestos Projects—Certification, Accreditation and Business Exemption Requirements**

*PURPOSE: This rule requires individuals who work in asbestos projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos occupations must first obtain accreditation from the department. Certain business entities who meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos projects.*

*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—

(A) All persons who authorize, design, conduct, and work in asbestos projects;

(B) Those who monitor airborne asbestos as a result of asbestos projects;

(C) Individuals who conduct asbestos inspections and develop Asbestos Hazard Emergency Response Act (AHERA) management plans and project designs; and

(D) Those who provide training for individuals involved in subsections (1)(A)–(C) of this rule.

(2) Definitions.

(A) Asbestos—The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolitetremolite.

(B) Facility—Any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing

condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four (4) or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this subpart is not excluded, regardless of its current use or function.

(C) Definitions. 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) Certification.

1. An individual must receive certification from the department before that individual participates in an asbestos project, inspection, AHERA management plan, abatement project design, or asbestos air sampling in the state of Missouri. This certification must be renewed annually with the exception of air sampling professionals. To become certified an individual must meet the qualifications in the specialty area as defined in the EPA's AHERA Model Accreditation Plan, 40 CFR part 763, Appendix C, subpart E promulgated as of July 1, 2018 and 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. The individual must successfully complete a fully-approved U.S. Environmental Protection Agency (EPA) or Missouri-accredited AHERA training course and pass the training course exam and pass the Missouri asbestos examination with a minimum score of seventy percent (70%) and submit a completed department-supplied application form to the department along with the appropriate certification fees. The department shall issue a certificate to each individual that meets the requirements for the job category.

2. In order to receive Missouri certification, individuals must be trained by Missouri accredited providers.

3. Qualifications. An individual shall present proof of these to the department with the application for certification. The following are the minimum qualifications for each job category:

A. An asbestos air sampling professional conducts, oversees, or is responsible for air monitoring of asbestos projects. Air sampling professionals must satisfy one (1) of the following qualifications for certification:



(I) Bachelor of science degree in industrial hygiene plus one (1) year of field experience. The individual must provide a copy of his/her diploma, a certified copy of his/her transcript, and documentation of one (1) year of experience;

(II) Master of science degree in industrial hygiene. The individual must provide a copy of his/her diploma and a certified copy of his/her transcript;

(III) Certification as an industrial hygienist as designated by the American Board of Industrial Hygiene. The individual must provide a copy of his/her certificate and a certified copy of his/her transcript, if applicable;

(IV) Three (3) years of practical industrial hygiene field experience including significant asbestos air monitoring and completion of a forty (40)-hour asbestos course including air monitoring instruction. At least fifty percent (50%) of the three (3)-year period must have been on projects where a degreed or certified industrial hygienist or a Missouri certified asbestos air sampling professional was involved. The individual must provide to the department written reference by the industrial hygienist or the asbestos air sampling professional stating the individual's performance of monitoring was acceptable and that the individual is capable of fulfilling the responsibilities associated with certification as an asbestos air sampling professional. The individual must also provide documentation of his/her experience and a copy of his/her asbestos course certificate; or

(V) Other qualifications including, but not limited to, an American Board of Industrial Hygiene accepted degree or a health/safety related degree combined with related experience. The individual must provide a copy of his/her diploma and/or certification, a certified copy of his/her transcript, and letters necessary to verify experience;

B. An asbestos air sampling technician is an individual who has been trained by an air sampling professional to do air monitoring and who conducts air monitoring of asbestos projects. Air sampling technicians need not be certified but are required to pass a training course and have proof of passage of the course at the site along with photo identification. This course shall include:

(I) Air monitoring equipment and supplies;

(II) Experience with pump calibration and location;

(III) Record keeping of air monitoring data for asbestos projects;

(IV) Applicable asbestos regulations;

(V) Visual inspection for final clearance sampling; and

(VI) A minimum of sixteen (16)

hours of air monitoring field equipment training by a certified air sampling professional;

C. An asbestos inspector is an individual who collects and assimilates information used to determine the presence and condition of asbestos-containing material in a building or other air contaminant source. An asbestos inspector must hold a diploma from a fully-approved EPA or Missouri-accredited AHERA inspector course and a high school diploma or its equivalent;

D. An AHERA asbestos management planner is an individual who, under AHERA, reviews the results of inspections, reinspections, or assessments and writes recommendations for appropriate response actions. An AHERA asbestos management planner must hold diplomas from a fully-approved EPA or Missouri-accredited AHERA inspector course and a fully approved EPA or Missouri-accredited management planner course. The individual must also hold a high school diploma or its equivalent;

E. An abatement project designer is an individual who designs or plans asbestos abatement. An abatement project designer must—

(I) Have a diploma from a fully-approved EPA or Missouri-accredited project designer course;

(II) Have an engineering or industrial hygiene degree;

(III) Have working knowledge of heating, ventilation, and air conditioning systems;

(IV) Hold a high school diploma or its equivalent; and

(V) Have at least four (4) years experience in building design, heating, ventilation, and air conditioning systems. The department may require individuals with professional degrees for complex asbestos projects;

F. An asbestos supervisor is an individual who directs, controls, or supervises others in asbestos projects. An asbestos supervisor shall—

(I) Hold a diploma from a fully-approved EPA or Missouri-accredited AHERA abatement contractor/supervisor course; and

(II) Have one (1) year full-time prior experience in asbestos abatement work or in general construction work; and

G. An asbestos abatement worker is an individual who engages in asbestos projects. An asbestos abatement worker shall—

(I) Hold a diploma from a fully-approved EPA; or

(II) Missouri-accredited AHERA worker training course.

4. Certification may be denied for any one (1) or more of the following:

A. Failure to meet minimum training,

education, or experience requirements;

B. Providing false or misleading statements in the application;

C. Failure to submit a complete application;

D. Three (3) or more citations or violations of existing asbestos regulations within the last two (2) years;

E. Three (3) or more violations of 29 CFR 1910.1001 or 29 CFR 1926.1101 within the last two (2) years. 29 CFR 1910.1001 and 29 CFR 1926.1101 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;

F. Fraud or failure to disclose facts relevant to their application;

G. Permitting the duplication or use by another of the individual's certificate; and

H. Any other information which may affect the applicant's ability to appropriately perform asbestos work.

(B) Recertification.

1. All asbestos inspectors, management planners, abatement project designers, supervisors, and workers shall pass a Missouri-accredited annual AHERA refresher course and examination in their specialty area. The refresher course must be specific to the individual's initial certification and must meet the requirements of the EPA's AHERA Model Accreditation Plan 40 CFR part 763 promulgated as of July 1, 2018 and 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. In the case of significant changes in Missouri statutes or rules the department will require individuals to retake a revised version of the Missouri asbestos examination prior to being recertified.

(C) Certification/Recertification Fees. The department shall assess—

1. A seventy-five dollar (\$75) application fee for each individual applying for certification except for asbestos abatement workers. Effective January 1, 2017, the application fee is one hundred dollars (\$100);

2. A twenty-five dollar (\$25) application fee for each asbestos abatement worker. Effective January 1, 2017, the application fee is forty dollars (\$40);

3. No application fees for asbestos air sampling technicians;

4. A twenty-five dollar (\$25) fee for each Missouri asbestos examination;



5. A five dollar (\$5) renewal fee for each renewal certificate for asbestos abatement workers. Effective January 1, 2017, the renewal fee is twenty dollars (\$20); and

6. A five dollar (\$5) renewal fee for each renewal certificate for non-asbestos abatement workers. Effective January 1, 2017, the renewal fee is fifty dollars (\$50).

(D) Accreditation of Training Programs. To be a training provider for the purposes of this rule, a person shall apply for accreditation to the department and comply with EPA's AHERA Model Accreditation Plan 40 CFR part 763, Appendix C, subpart E as incorporated by reference in paragraph (3)(B)1. of this rule. Business entities that are determined by the department to fall under subsection (3)(E) of this rule are exempt from this section.

1. Training providers shall apply for approval of a training course(s) as provided in section 643.228, RSMo, on the department-supplied Asbestos Training Course Accreditation form.

A. In addition to the written application, the training provider shall present each initial course for the department to audit. The department may deny accreditation of a course if the applicant fails to provide information required within sixty (60) days of receipt of written notice that the application is deficient. All training providers must apply for reaccreditation biennially.

B. Training providers must submit documentation that their courses meet the criteria set forth in this rule. Out-of-state providers must submit documentation of biennial audit by an accrediting agency with a written verification that Missouri rules are addressed in the audited course.

C. Providers must pay an accreditation fee of one thousand dollars (\$1,000) per course category prior to issuance or renewal of an accreditation. No person shall pay more than three thousand dollars (\$3,000) for all course categories for which accreditation is requested at the same time.

2. At least two (2) weeks prior to the course starting date, training providers shall notify the department of their intent to offer initial training and refresher courses. The notification shall include the course title, starting date, the location at which the course will take place, and a list of the course instructors.

3. All training courses shall have a ratio of students to instructors in hands-on demonstrations that shall not exceed ten-to-one (10:1).

4. Instructor qualifications.

A. An individual must be Missouri-certified in a specialty area before they will be allowed to teach in that specialty area, except that instructors certified as supervisors

may also instruct a worker course.

B. An individual with experience and education in industrial hygiene shall teach the sections of the training courses concerning the performance and evaluation of air monitoring programs and the design and implementation of respiratory protection programs. The department does not require that the instructor hold a degree in industrial hygiene, but the individual must provide documentation and written explanation of experience and training.

C. An individual who is a Missouri-certified supervisor, and who has sufficient training and work experience to effectively present the assigned subject matter, shall teach the hands-on training sections of all courses.

D. An individual who teaches the portions of the project designer's course involving heating, ventilation, and air conditioning (HVAC) systems, must—

(I) Be a licensed architect or a licensed engineer; or

(II) Must provide documentation of training and at least five (5) years' experience in the field.

5. The course provider must administer and monitor all course examinations. The course provider assumes responsibility for the security of exam contents and shall ensure that the participant passes the exam on his/her own merit. Minimum security measures for the written exams include ample space between participants, absence of written materials other than the examination and supervision of the exam by course provider.

6. When the provider offers training on short notice, the training provider shall notify the department as soon as possible but no later than two (2) days prior to commencement of that training.

7. When the provider cancels the course, the training provider should notify the department at the same time s/he notifies course participants, and shall follow-up with written notification.

8. When rules, policies, or procedures change, the training provider must update the initial and refresher courses. The training provider must notify the department as soon as s/he makes the changes.

9. The department may withdraw accreditation from providers who fail to accurately portray their Missouri accreditation in advertisements, who fail to ensure security of examinations, who fail to ensure that each student passes the exam on his/her own merit, or who issue improper certificates.

10. Training course providers must notify the department of any changes in training course content or instructors. Training course providers must submit resumés of all new instructors to the department as soon as sub-

stitutions or additions are made.

11. The department may revoke or suspend accreditation of any course subject to this rule if alterations in the course cause it to fail the department's accreditation criteria.

12. Training providers shall have thirty (30) days to correct identified deficiencies in training course(s) before the department revokes accreditation.

(E) Business Exemptions. The department may exempt a person from registration, certification, and certain notification requirements provided the person conducts asbestos projects solely at the person's own place(s) of business as part of normal operations in the facility and the person is also subject to the requirements and applicable standards of the EPA and United States Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 as incorporated by reference in subparagraph (3)(A)4.E. of this rule. The person shall submit an application for exemption to the department on the department-supplied form. This exemption shall not apply to asbestos abatement contractors, to those subject to the requirements of AHERA, and to those persons who provide a service to the public in their place(s) of business as the economic foundation of the facility. These shall include, but not be limited to, child daycare centers, restaurants, nursing homes, retail outlets, medical care facilities, hotels, and theaters. The department shall review the exemption application within one hundred eighty (180) days. State-exempted business entities shall comply with all federal air sampling requirements for planned renovation operations.

1. Training course requirements.

A. The person shall fill out the department-supplied form describing training provided to employees and an explanation of how the training meets the applicable OSHA and EPA standards.

B. The person shall notify the department two (2) weeks before the person conducts training programs. This notification shall include the course title, start-up date, location, and course instructor(s).

C. If the person cancels the course, the person shall notify the department at the same time the person notifies course participants and follow up with written notification to the department.

D. When regulations, policies, or procedures change, the person must update the initial and refresher courses and notify the department as soon as the person makes the changes.

E. When the person conducts hands-on training, the ratio of students to instructors shall not exceed ten-to-one (10:1).

F. The person must allow representative(s) of the department to attend the training





course for purposes of determining compliance with this rule.

G. Exempted persons shall submit to the director changes in curricula, instructors, and other significant revisions to the training program as they occur and submit resumés of all new instructors to the department as soon as substitutions or additions are made.

H. The department may revoke or suspend an exemption if on-site inspection indicates that the training fails the exemption requirements. These include, but are not limited to, a decrease in course length, a change in course content or use of different instructors than those indicated in the application. The department, in writing, shall notify the person responsible for the training of deficiencies. The person shall have thirty (30) days to correct the deficiencies before the department issues final written notice of exemption withdrawal.

2. If the department finds an exemption application deficient, the person has sixty (60) days to correct the deficiencies. If, within sixty (60) days, the person fails to provide the department with the required information, the department may deny approval of the exemption.

3. The person shall submit a fee of two hundred fifty dollars (\$250) with the application for exemption. This is a nonrefundable one (1)-time fee.

(F) All information required under this rule must be submitted on the appropriate forms and contain accurate, legible information. Failure to provide the required information, failure to submit legible information, submission of false information or failure to provide complete information as required, shall be a violation of this rule and may result in the director's denial or revocation of the forms provided.

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

(5) Test Methods. (Not Applicable)

AUTHORITY: section 643.225, RSMo 2016.\* 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.

\*Original authority: 643.225, RSMo 1989, amended 2011,

2012.

**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.

(1) Applicability. This rule applies to any source that emits sulfur dioxide (SO<sub>2</sub>). 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 as of December 31, 2016, and this exception is determined by complying with the record keeping requirements in section (4) 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. Any federally enforceable permit.

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

(3) General Provisions.

(A) SO<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 1 – 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)* | Averaging Time                |
|---|-----------|--|-------------------------------|
| Associated Electric Coop, Inc. Chamois Plant                            | 1510002   | 6.7  | 3 hours                       |
| City Utilities of Springfield James River Plant (Boilers #1 through #5) | 0770005   | Natural Gas  | N.A.                          |
| Empire District Electric Company Asbury Plant                           | 0970001   | 12.0   | 3 hours                       |
| New Madrid Power Plant — Marston  | 1430004   | 10.0   | 3 hours                       |
| Thomas Hill Energy Center Power Division Thomas Hill                    | 1750001   | 8.0  | 3 hours                       |
| University of Missouri (MU) - Columbia Power Plant                      | 0190004   | 8.0  | 3 hours                       |
| Kansas City Power and Light Co. Montrose Generating Station             | 0830001   | 3.9  | 24 hours                      |
| Ameren Missouri Sioux Plant   | 1830001   | 4.8  | Daily average, 00:01 to 24:00 |
| Doe Run Company — Buick Resource Recycling Facility                     | 0930009   | 8.650 pounds SO <sub>2</sub> /hr   | 1-hour test repeated 3 times  |

\*Applies to indirect heating units only.

(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 con-

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



| Area of State                  | Source or unit construction date                   | Liquid fuel sulfur content in parts per million (ppm) sulfur |            |
|--------------------------------|--|--|------------|
|                                |  | Residual   | Distillate |
| All                            | Began after the dates directly below in this table | 8.509  | 8.812      |
| Kansas City Metropolitan Area  | Began on or before September 28, 1968              | 34.036   | 35.249     |
| St. Louis Metropolitan Area    | Began on or before March 24, 1967                  |  |            |
| Springfield-Greene County Area | Began on or before September 24, 1971              |  |            |
| Outstate Area                  | Began on or before February 24, 1971               |  |            |

(D) 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; and

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)(D)2. of this rule;

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

2. For sources subject to subsection (3)(B) or (3)(C) of this rule not required to use SO<sub>2</sub> CEMS for compliance 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 Record Keeping.

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

1. Report any excess emissions other than startup, shutdown, and malfunction excess emissions already required to be reported under 10 CSR 10-6.050 to the staff director for each calendar quarter within thir-

ty (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 list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess SO<sub>2</sub> emissions;

3. Maintain a record of 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; and

4. 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 SO<sub>2</sub> CEMS for compliance must also—

1. If SO<sub>2</sub> CEMS is already used to satisfy other requirements (other than only to demonstrate compliance with this rule), con-

tinue 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 subsection (5)(B) of this rule.

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

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

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

(E) Owners or operators of sources using SO<sub>2</sub> emissions performance tests for compliance must also follow the requirements in subsection (5)(A) of this rule.

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

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

(5) Test Methods.

(A) Owners or operators of sources must use one (1) or more of the following 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) Owners or operators of sources using an SO<sub>2</sub> CEMS for demonstrating compliance with this rule 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 is 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).

(C) 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.

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.

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

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

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

plan.

*AUTHORITY: section 643.050, RSMo 2016.\* Original rule filed April 10, 2015, effective Nov. 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 10-6.270 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. Therefore, the material which is so incorporated is on file with the agency who filed this rule, and with the Office of the Secretary of State. Any interested person may view this material at either agency's headquarters or the same will be made available at the Office of the Secretary of State at a cost not to exceed actual cost of copy reproduction. The entire text of the rule is printed here. This note refers only to the incorporated by reference material.*

(1) Definitions—Terms and phrases used in this rule may be found in 10 CSR 10-6.020 Definitions and Common Reference Tables.

(2) The Missouri Department of Natural Resources hereby adopts and incorporates by reference the provisions of 40 CFR part 72, then 40 CFR part 73, 40 CFR part 75, 40 CFR part 76, 40 CFR part 77, and 40 CFR part 78 as in effect in the *Code of Federal Regulations* on or after July 1993, for the purpose of establishing certain general provisions and operating permit program requirements for affected sources and affected units under the federal Acid Rain Program.

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

*AUTHORITY: section 643.050, RSMo Supp. 1997.\* Original rule filed June 2, 1994,*

*effective Dec. 30, 1994. Amended: Filed Oct. 9, 1998, effective Aug. 30, 1999.*

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

### 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**

*PURPOSE: This rule implements section 176(c) of the Clean Air Act, as amended (42 U.S.C. 7506(c)), and regulations under 40 CFR 93, subpart B, with respect to the conformity of general federal actions to the applicable implementation plan. Under those authorities, no department, agency, or instrumentality of the federal government may engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan. This rule sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such actions to the applicable implementation plan. This rule applies to all areas in the state of Missouri designated as nonattainment or maintenance for any criteria pollutant or standard for which there is a nation-*

*al ambient air quality standard.*

(1) Applicability.

(A) Conformity determinations for federal actions related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must meet the procedures and criteria of 10 CSR 10-5.480 in lieu of the procedures set forth in this rule.

(B) For federal actions not covered by subsection (1)(A) of this rule, a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a federal action would equal or exceed any of the *de minimis* rates in paragraph (1)(B)1. or paragraph (1)(B)2. of this rule.

1. For purposes of subsection (1)(B) of this rule, the following rates apply in nonattainment areas (NAAs):

|   | Tons/Year |
|---|-----------|
| Ozone (VOC or NO <sub>x</sub> ):                                    |           |
| Serious NAAs  | 50        |
| Severe NAAs   | 25        |
| Extreme NAAs  | 10        |
| Other ozone NAAs outside an ozone transport region                  | 100       |
| Other ozone NAAs inside an ozone transport region:                  |           |
| VOC   | 50        |
| NO <sub>x</sub>   | 100       |
| Carbon monoxide: All NAAs   | 100       |
| SO <sub>2</sub> or NO <sub>2</sub> : All NAAs                       | 100       |
| PM <sub>10</sub> :  |           |
| Moderate NAAs   | 100       |
| Serious NAAs  | 70        |
| PM <sub>2.5</sub> :   |           |
| Direct emissions  | 100       |
| SO <sub>2</sub>   | 100       |
| NO <sub>x</sub> (unless determined not to be significant precursor) | 100       |
| VOC or ammonia (if determined to be significant precursors)         | 100       |
| Pb: All NAAs  | 25        |

2. For purposes of subsection (1)(B) of this rule, the following rates apply in maintenance areas:

|   | Tons/Year |
|---|-----------|
| Ozone (NO <sub>x</sub> , SO <sub>2</sub> , or NO <sub>2</sub> ):    |           |
| All Maintenance Areas   | 100       |
| Ozone (VOCs):   |           |
| Maintenance areas inside an ozone transport region                  | 50        |
| Maintenance areas outside an ozone transport region                 | 100       |
| Carbon monoxide: All Maintenance Areas                              | 100       |
| PM <sub>10</sub> : All Maintenance Areas                            | 100       |
| PM <sub>2.5</sub> :   |           |
| Direct emissions  | 100       |
| SO <sub>2</sub>   | 100       |
| NO <sub>x</sub> (unless determined not to be significant precursor) | 100       |
| VOC or ammonia (if determined to be significant precursors)         | 100       |
| Pb: All Maintenance Areas   | 25        |

(C) The requirements of this rule do not apply to the following federal actions:

1. Actions where the total of direct and indirect emissions are below the emissions levels specified in subsection (1)(B) of this rule;

2. The following actions which would result in no emissions increase or an increase in emissions that is clearly below the *de minimis* levels identified in subsection (1)(B) of this rule:

A. Judicial and legislative proceedings;

B. Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted;

C. Rulemaking and policy development and issuance;

D. Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities;

E. Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions, and the training of law enforcement personnel;

F. Administrative actions such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties, and fees;

G. Routine, recurring transportation of material and personnel;

H. Routine movement of mobile assets, such as ships and aircraft, in-home port reassignments, and stations (when no new support facilities or personnel are necessary) to perform as operational groups or for repair or overhaul;

I. Maintenance dredging and debris disposal where no new depths are necessary, applicable permits are secured, and disposal will be at an approved disposal site;



J. With respect to existing structures, properties, facilities, and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands; actions such as relocation of personnel, disposition of federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, assistance in purchasing structures, and the production of coins and currency;

K. Granting of leases, licenses such as for exports and trade, permits, and easements where activities conducted will be similar in scope and operation to activities currently being conducted;

L. Planning, studies, and provision of technical assistance;

M. Routine operation of facilities, mobile assets, and equipment;

N. Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of the transfer;

O. Designation of empowerment zones, enterprise communities, or viticultural areas;

P. Actions by any of the federal banking agencies or the federal reserve banks, including actions regarding charters, applications, notices, licenses, the supervision or examination of depository institutions or depository institution holding companies, access to the discount window, or the provision of financial services to banking organizations or to any department, agency, or instrumentality of the United States;

Q. Actions by the board of governors of the Federal Reserve System or any federal reserve bank to effect monetary or exchange rate policy;

R. Actions that implement a foreign-affairs function of the United States;

S. Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and where the federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties;

T. Transfers of real property, including land, facilities, and related personal property from a federal entity to another federal

entity and assignments of real property, including land, facilities, and related personal property from a federal entity to another federal entity for subsequent deeding to eligible applicants;

U. Actions by the Department of the Treasury to effect fiscal policy and to exercise the borrowing authority of the United States; and

V. Air traffic control activities and adopting approach, departure, and enroute procedures for aircraft operations above the mixing height specified in the applicable State Implementation Plan (SIP) or Tribal Implementation Plan (TIP). Where the applicable SIP or TIP does not specify a mixing height, the federal agency can use the three thousand feet (3,000') above ground level as a default mixing height, unless the agency demonstrates that use of a different mixing height is appropriate because the change in emissions at and above that height caused by the federal action is below the *de minimis* levels identified in subsection (1)(B) of this rule;

3. Actions where the emissions are not reasonably foreseeable, such as the following:

A. Initial Outer Continental Shelf lease sales which are made on a broad scale and are followed by exploration and development plans on a project level; and

B. Electric power marketing activities that involve the acquisition, sale, and transmission of electric energy; and

4. Actions which implement a decision to conduct or carry out a program that has been found to conform to the applicable implementation plan, such as prescribed burning actions which are consistent with a land management plan that has been found to conform to the applicable implementation plan.

(D) Notwithstanding the other requirements of this rule, a conformity determination is not required for the following federal actions (or portion thereof):

1. The portion of an action that includes major or minor new or modified stationary sources that require a permit under the new source review (NSR) program (section 110 (a)(2)(c) and section 173 of the Clean Air Act (CAA)) or the prevention of significant deterioration (PSD) program (Title I, part C of the CAA);

2. Actions in response to emergencies which are typically commenced on the order of hours or days after the emergency or disaster and, if applicable, which meet the requirements of subsection (1)(E) of this rule;

3. Research, investigations, studies, demonstrations, or training other than those exempted under paragraph (1)(C)2. of this rule, where no environmental detriment is

incurred or the particular action furthers air quality research, as determined by the department;

4. Alteration and additions of existing structures as specifically required by new or existing applicable environmental legislation or environmental regulations (for example, hush houses for aircraft engines and scrubbers for air emissions); and

5. Direct emissions from remedial and removal actions carried out under CERCLA and associated regulations to the extent such emissions either comply with the substantive requirements of the PSD/NSR permitting program or are exempted from other environmental regulation under the provisions of CERCLA and applicable regulations issued under CERCLA.

(E) Federal actions which are part of a continuing response to an emergency or disaster under paragraph (1)(D)2. of this rule and which are to be taken more than six (6) months after the commencement of the response to the emergency or disaster under paragraph (1)(D)2. of this rule are exempt from the requirements of this rule only if—

1. The federal agency taking the actions makes a written determination that, for a specified period not to exceed an additional six (6) months, it is impractical to prepare the conformity analyses which would otherwise be required and the actions cannot be delayed due to overriding concerns for public health and welfare, national security interests, and foreign policy commitments; or

2. For actions which are to be taken after those actions covered by paragraph (1)(E)1. of this rule, the federal agency makes a new determination as provided in paragraph (1)(E)1. of this rule and—

A. Provides a draft copy of the written determinations required to affected U.S. Environmental Protection Agency (EPA) regional office(s), the affected state(s) and/or air pollution control agencies, and any federal recognized Indian tribal government in the nonattainment or maintenance area. Those organizations must be allowed fifteen (15) days from the beginning of the extension period to comment on the draft determination; and

B. Within thirty (30) days after making the determination, publishes a notice of the determination by placing a prominent advertisement in a daily newspaper of general circulation in the area affected by the action; and

3. If additional actions are necessary in response to an emergency or disaster under paragraph (1)(D)2. of this rule beyond the specified time period in paragraph (1)(E)2. of this rule, a federal agency can make a new written determination as described in paragraph (1)(E)2. of this rule for as many six



(6)-month periods as needed, but in no case shall this exemption extend beyond three (3) six (6)-month periods except where an agency provides information to EPA and the state or tribe stating that the conditions that gave rise to the emergency exemption continue to exist and how such conditions effectively prevent the agency from conducting a conformity evaluation.

(F) Notwithstanding other requirements of this rule, actions specified by individual federal agencies that have met the criteria set forth in paragraphs (1)(G)1. through (1)(G)3. of this rule and the procedures set forth in subsection (1)(H) of this rule are presumed to conform, except as provided in subsection (1)(J) of this rule. Actions specified by individual federal agencies as presumed to conform may not be used in combination with one another when the total direct and indirect emissions from the combination of actions would equal or exceed any of the rates specified in paragraph (1)(B)1. or (1)(B)2. of this rule.

(G) The federal agency must meet the criteria for establishing activities that are presumed to conform by fulfilling the requirements set forth in paragraphs (1)(G)1. through (1)(G)3. of this rule.

1. The federal agency must clearly demonstrate using methods consistent with this rule that the total of direct and indirect emissions from the type of activities which would be presumed to conform would not—

A. Cause or contribute to any new violation of any standard in any area;

B. Interfere with provisions in the applicable implementation plan for maintenance of any standard;

C. Increase the frequency or severity of any existing violation of any standard in any area; or

D. Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area including, where applicable, emission levels specified in the applicable implementation plan for purposes of—

(I) A demonstration of reasonable further progress;

(II) A demonstration of attainment;

or  
(III) A maintenance plan.

2. The federal agency must provide documentation that the total of direct and indirect emissions from such future actions would be below the emission rates for a conformity determination that are established in subsection (1)(B) of this rule, based, for example, on similar actions taken over recent years.

3. The federal agency must clearly demonstrate that the emissions from the type

or category of actions and the amount of emissions from the action are included in the applicable SIP and the state, local, or tribal air quality agencies responsible for the SIP(s) or TIP(s) provide written concurrence that the emissions from the actions along with all other expected emissions in the area will not exceed the emission budget in the SIP.

(H) In addition to meeting the criteria for establishing exemptions set forth in paragraphs (1)(G)1. through (1)(G)3. of this rule, the following procedures must also be complied with to presume that activities will conform:

1. The federal agency must identify through publication in the *Federal Register* its list of proposed activities that are presumed to conform and the basis for the presumptions. The notice must clearly identify the type and size of the action that would be presumed to conform and provide criteria for determining if the type and size of action qualifies it for the presumption;

2. The federal agency must notify the appropriate EPA regional office(s), state, local, and tribal air quality agencies and, where applicable, the agency designated under section 174 of the CAA and the Metropolitan Planning Organization (MPO) and provide at least thirty (30) days for the public to comment on the list of proposed activities presumed to conform. If the presumed-to-conform action has regional or national application (e.g., the action will cause emission increases in excess of the *de minimis* levels identified in subsection (1)(B) of this rule in more than one (1) of EPA's regions), the federal agency, as an alternative to sending it to EPA regional offices, can send the draft conformity determination to U.S. EPA, Office of Air Quality Planning and Standards;

3. The federal agency must document its responses to all the comments received and make the comments, responses, and final list of activities available to the public upon request; and

4. The federal agency must publish the final list of such activities in the *Federal Register*.

(I) Emissions from the following actions are presumed to conform:

1. Actions at installations with facility-wide emission budgets meeting the requirements in subsection (3)(H) of this rule provided that the state or tribe has included the emission budget in the EPA-approved SIP and the emissions from the action along with all other emissions from the installation will not exceed the facility-wide emission budget;

2. Prescribed fires conducted in accordance with a smoke management program

which meets the requirements of EPA's Interim Air Quality Policy on Wildland and Prescribed Fires or an equivalent replacement EPA policy; and

3. Actions that the state or tribe identifies in the EPA-approved SIP or TIP as presumed to conform.

(J) Even though an action would otherwise be presumed to conform under subsection (1)(F) or (1)(I) of this rule, an action shall not be presumed to conform and the requirements of section (4), subsection (1)(L), subsections (3)(A) through (3)(G), and subsections (3)(I) through (3)(K) of this rule shall apply to the action if EPA or a third party shows that the action would—

1. Cause or contribute to any new violation of any standard in any area;

2. Interfere with provisions in the applicable SIP or TIP for maintenance of any standard;

3. Increase the frequency or severity of any existing violation of any standard in any area; or

4. Delay timely attainment of any standard or any required interim emissions reductions or other milestones in any area including, where applicable, emission levels specified in the applicable SIP or TIP for purposes of—

A. A demonstration of reasonable further progress;

B. A demonstration of attainment; or

C. A maintenance plan.

(K) The provisions of this rule apply in all nonattainment and maintenance areas except conformity requirements for newly-designated nonattainment areas are not applicable until one (1) year after the effective date of the final nonattainment designation for each National Ambient Air Quality Standards (NAAQS) and pollutant in accordance with section 176(c)(6) of the Act.

(L) State Implementation Plan Revision. The federal conformity rules under 40 CFR 51, Subpart W and 40 CFR 93, Subpart B, in addition to any existing applicable state requirements, establish the conformity criteria and procedures necessary to meet the requirements of Clean Air Act section 176(c) until such time as this rule is approved by EPA as an implementation plan revision. Following EPA approval of this rule as a revision to the applicable implementation plan (or a portion thereof), the approved (or approved portion of the) state criteria and procedures will govern conformity determinations and the federal conformity regulations contained in 40 CFR 93 will apply only for the portion, if any, of the state's conformity provisions that is not approved by EPA. In addition, any previously-applicable implementation plan



requirements relating to conformity remain enforceable until the state revises its applicable implementation plan to specifically remove them and that revision is approved by EPA.

(2) Definitions.

(A) Affected federal land manager—The federal agency or the federal official charged with direct responsibility for management of an area designated as Class I under the Clean Air Act (42 U.S.C. 7472) that is located within one hundred kilometers (100 km) of the proposed federal action.

(B) Applicability analysis—The process of determining if the federal action must be supported by a conformity determination.

(C) Applicable implementation plan or applicable state implementation plan (SIP)—The portion (or portions) of the SIP or most recent revision thereof, which has been approved under section 110(k) of the Act, a federal implementation plan promulgated under section 110(c) of the Act, or a plan promulgated or approved pursuant to section 301(d) of the Act (tribal implementation plan) and which implements the relevant requirements of the Act.

(D) Area-wide air quality modeling analysis—An assessment on a scale that includes the entire nonattainment or maintenance area using an air quality dispersion model or photochemical grid model to determine the effects of emissions on air quality; for example, an assessment using the U.S. Environmental Protection Agency's community multiscale air quality (CMAQ) modeling system.

(E) Cause or contribute to a new violation—A federal action that—

1. Causes a new violation of a national ambient air quality standard (NAAQS) at a location in a nonattainment or maintenance area which would otherwise not be in violation of the standard during the future period in question if the federal action were not taken; or

2. Contributes, in conjunction with other reasonably foreseeable actions, to a new violation of a NAAQS at a location in a nonattainment or maintenance area in a manner that would increase the frequency or severity of the new violation.

(F) Caused by, as used in the terms direct emissions and indirect emissions—Emissions that would not otherwise occur in the absence of the federal action.

(G) Confidential business information—Information that has been determined by a federal agency, in accordance with its applicable regulations, to be a trade secret, or commercial or financial information obtained from a person and privileged or confidential

and is exempt from required disclosure under the Freedom of Information Act (5 U.S.C. 552(b)(4)).

(H) Conformity determination—The evaluation (made after an applicability analysis is completed) that a federal action conforms to the applicable implementation plan and meets the requirements of this rule.

(I) Conformity evaluation—The entire process from the applicability analysis through the conformity determination that is used to demonstrate that the federal action conforms to the requirements of this rule.

(J) Continuous program to implement—The federal agency has started the action identified in the plan and does not stop the actions for more than an eighteen (18)-month period, unless it can demonstrate that such a stoppage was included in the original plan.

(K) Criteria pollutant or standard—Any pollutants for which there is established a National Ambient Air Quality Standard at 40 CFR 50.

(L) Direct emissions—Those emissions of a criteria pollutant or its precursors that are caused or initiated by the federal action and originate in a nonattainment or maintenance area and occur at the same time and place as the action and are reasonably foreseeable.

(M) Emergency—A situation where extremely quick action on the part of the federal agencies involved is needed and where the timing of such federal activities makes it impractical to meet the requirements of this rule, such as natural disasters like hurricanes or earthquakes, civil disturbances such as terrorist acts, and military mobilizations.

(N) Emission inventory—A listing of information on the location, type of source, type and quantity of pollutant emitted, as well as other parameters of the emissions.

(O) Emissions budgets—Those portions of the total allowable emissions defined in a U.S. Environmental Protection Agency-approved revision to the applicable implementation plan for a certain date for the purpose of meeting reasonable further progress milestones or attainment or maintenance demonstrations, for any criteria pollutant or its precursors, specifically allocated by the applicable implementation plan to mobile sources, to any stationary source or class of stationary sources, to any federal action or class of action, to any class of area sources, or to any subcategory of the emissions inventory. The allocation system must be specific enough to assure meeting the criteria of section 176(c)(1)(B) of the Clean Air Act. An emissions budget may be expressed in terms of an annual period, a daily period, or other period established in the applicable implementation plan.

(P) Offsets (Emission offsets)—Emission reductions which are quantifiable, consistent with the attainment and reasonable further progress demonstrations of the applicable implementation plan, surplus to reductions required by, and credited to, other applicable implementation plan provisions, enforceable under both state and federal law, and permanent within the time frame specified by the program.

(Q) Federal action—Any activity engaged in by a department, agency, or instrumentality of the federal government, or any activity that a department, agency, or instrumentality of the federal government supports in any way, provides financial assistance for, licenses, permits, or approves, other than activities related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.). Where the federal action is a permit, license, or other approval for some aspect of a nonfederal undertaking, the relevant activity is the part, portion, or phase of the nonfederal undertaking that requires the federal permit, license, or approval.

(R) Federal agency—A federal department, agency, or instrumentality of the federal government.

(S) Increase the frequency or severity of any existing violation of any standard in any area—To cause a nonattainment area to exceed a standard more often or to cause a violation at a greater concentration than previously existed or would otherwise exist during the future period in question, if the project were not implemented.

(T) Indirect emissions—Those emissions of a criteria pollutant or its precursors—

1. That are caused or initiated by the federal action and originate in the same nonattainment or maintenance area but may occur at a different time or place;

2. That are reasonably foreseeable; and

3. That the federal agency can practically control and will maintain control due to a continuing program responsibility of the federal agency, including, but not limited to—

A. Traffic on or to, or stimulated or accommodated by, a proposed facility which is related to increases or other changes in the scale or timing of operations of such facility;

B. Emissions related to the activities of employees of contractors or federal employees;

C. Emissions related to employee commutation and similar programs to increase average vehicle occupancy imposed on all employers of a certain size in the locality; or

D. Emissions related to the use of





federal facilities under lease or temporary permit. For the purposes of this definition, even if a federal licensing, rulemaking, or other approving action is a required initial step for a subsequent activity that causes emissions, such initial steps do not mean that a federal agency can practically control any resulting emissions.

(U) Local air quality modeling analysis—An assessment of localized impacts on a scale smaller than the entire nonattainment or maintenance area, including, for example, congested roadways on a federal facility, which uses an air quality dispersion model (e.g., Industrial Source Complex Model or Emission and Dispersion Model System) to determine the effects of emissions on air quality.

(V) Maintenance area—An area that was designated as nonattainment and has been re-designated in 40 CFR 81 to attainment, meeting the provisions of section 107(d)(3)(E) of the Act and has a maintenance plan approved under section 175A of the Act.

(W) Maintenance plan—A revision to the applicable Missouri State Implementation Plan, meeting the requirements of section 175A of the Clean Air Act.

(X) Metropolitan planning organization (MPO)—The policy board of an organization created as a result of the designation process in 23 U.S.C. 134(d) and in 49 U.S.C. 5303. It is the forum for cooperative transportation decision making and is responsible for conducting the planning required under section 174 of the Clean Air Act.

(Y) Milestone—The meaning given in sections 182(g)(1) and 189(c)(1) of the Clean Air Act. It consists of an emissions level and the date on which it is required to be achieved.

(Z) Mitigation measure—Any method of reducing emissions of the pollutant or its precursor taken at the location of the federal action and used to reduce the impact of the emissions of that pollutant caused by the action.

(AA) National Ambient Air Quality Standards (NAAQS)—Those standards established pursuant to section 109 of the Act and defined by 40 CFR 50. It includes standards for carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>) or oxides of nitrogen (NO<sub>x</sub>), ozone, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>) or sulfur oxides (SO<sub>x</sub>).

(BB) National Environmental Policy Act (NEPA)—The National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.).

(CC) Nonattainment area (NAA)—Any geographic area of the United States which

has been designated as nonattainment under section 107 of the Clean Air Act and described in 40 CFR 81.

(DD) Precursors of a criteria pollutant are—

1. For ozone, nitrogen oxides (NO<sub>x</sub>), unless an area is exempted from NO<sub>x</sub> requirements under section 182(f) of the Clean Air Act, and volatile organic compounds (VOCs);

2. For PM<sub>10</sub>, those pollutants described in the PM<sub>10</sub> nonattainment area applicable state implementation plan as significant contributors to the PM<sub>10</sub> levels; and

3. For PM<sub>2.5</sub>—

A. Sulfur dioxide (SO<sub>2</sub>) in all PM<sub>2.5</sub> nonattainment and maintenance areas;

B. NO<sub>x</sub> in all PM<sub>2.5</sub> nonattainment and maintenance areas unless both the state and U.S. Environmental Protection Agency (EPA) determine that it is not a significant precursor; and

C. VOC and ammonia (NH<sub>3</sub>) only in PM<sub>2.5</sub> nonattainment or maintenance areas where either the state or EPA determines that they are significant precursors.

(EE) Reasonably foreseeable emissions—Projected future direct and indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known and the emissions are quantifiable, as described and documented by the federal agency based on its own information and after reviewing any information presented to the federal agency.

(FF) Regional water or wastewater projects—Include construction, operation, and maintenance of water or wastewater conveyances, water or wastewater treatment facilities, and water storage reservoirs which affect a large portion of a nonattainment or maintenance area.

(GG) Restricted information—Information that is privileged or that is otherwise protected from disclosure pursuant to applicable statutes, executive orders, or regulations. Such information includes, but is not limited to, classified national security information, protected critical infrastructure information, sensitive security information, and proprietary business information.

(HH) Total of direct and indirect emissions—The sum of direct and indirect emissions increases and decreases caused by the federal action; that is, the net emissions considering all direct and indirect emissions. Any emissions decreases used to reduce such total shall have already occurred or shall be enforceable under state and federal law. The portion of emissions which are exempt or presumed to conform under subsection (3)(C), (D), (E), or (F) of this rule are not included in the total of direct and indirect

emissions, except as provided in subsection (3)(J) of this rule. The total of direct and indirect emissions includes emissions of criteria pollutants and emissions of precursors of criteria pollutants. The segmentation of projects for conformity analyses when emissions are reasonably foreseeable is not permitted by this rule.

(II) Tribal implementation plan (TIP)—A plan to implement the national ambient air quality standards adopted and submitted by a federally recognized Indian tribal government determined to be eligible under 40 CFR 49.9 and the plan has been approved by the U.S. Environmental Protection Agency.

(JJ) Definitions of certain terms not otherwise described or defined in this rule may be found in 10 CSR 10-6.020.

### (3) General Provisions.

#### (A) Prohibition.

1. No department, agency, or instrumentality of the federal government may engage in, support in any way, or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan.

2. A federal agency must make a determination that a federal action conforms to the applicable implementation plan in accordance with the requirements of this rule before the action is taken.

3. Notwithstanding any provision of this rule, a determination that an action is in conformity with the applicable implementation plan does not exempt the action from any other requirements of the applicable implementation plan, the National Environmental Policy Act (NEPA), or the CAA.

4. If an action would result in emissions originating in more than one (1) nonattainment or maintenance area, the conformity must be evaluated for each area separately.

(B) Federal Agency Conformity Responsibility. Any department, agency, or instrumentality of the federal government taking an action subject to this rule must make its own conformity determination consistent with the requirements of this rule. In making its conformity determination, a federal agency must follow the requirements in section (4), subsections (3)(C) through (3)(G), and subsections (3)(I) through (3)(L) of this rule and must consider comments from any interested parties. Where multiple federal agencies have jurisdiction for various aspects of a project, a federal agency may choose to adopt the analysis of another federal agency or develop its own analysis in order to make its conformity determination.

#### (C) Public Participation.



1. Upon request by any person regarding a specific federal action, a federal agency must make available, subject to the limitation in paragraph (3)(C)5. of this rule, for review its draft conformity determination under subsection (3)(B) of this rule with supporting materials which describe the analytical methods and conclusions relied upon in making the applicability analysis and draft conformity determination.

2. A federal agency must make public its draft conformity determination under subsection (3)(B) of this rule by placing a notice by prominent advertisement in a daily newspaper of general circulation in the areas affected by the action and by providing thirty (30) days for written public comment prior to taking any formal action on the draft determination. This comment period may be concurrent with any other public involvement, such as occurs in the NEPA process. If the action has multi-regional or national impacts (e.g., the action will cause emission increases in excess of the *de minimis* levels identified in subsection (1)(B) of this rule in three (3) or more of EPA's regions), the federal agency, as an alternative to publishing separate notices, can publish a notice in the *Federal Register*.

3. A federal agency must document its response to all the comments received on its draft conformity determination under subsection (3)(B) of this rule and make the comments and responses available, subject to the limitation in paragraph (3)(C)5. of this rule, upon request by any person regarding a specific federal action, within thirty (30) days of the final conformity determination.

4. A federal agency must make public its final conformity determination under subsection (3)(B) of this rule for a federal action by placing a notice by prominent advertisement in a daily newspaper of general circulation in the areas affected by the action within thirty (30) days of the final conformity determination. If the action would have multi-regional or national impacts, the federal agency, as an alternative, can publish the notice in the *Federal Register*.

5. The draft and final conformity determination shall exclude any restricted information or confidential business information. The disclosure of restricted information and confidential business information shall be controlled by the applicable laws, regulations, or executive orders concerning the release of such materials.

(D) Re-evaluation of Conformity.

1. Once a conformity determination is completed by a federal agency, that determination is not required to be re-evaluated if the agency has maintained a continuous program to implement the action; the determination

has not lapsed as specified in paragraph (3)(D)2. of this rule; or any modification to the action does not result in an increase in emissions above the levels as specified in subsection (1)(B) of this rule. If a conformity determination is not required for the action at the time NEPA analysis is completed, the date of the finding of no significant impact (FONSI) for an Environmental Assessment, a record of decision (ROD) for an Environmental Impact Statement, or a categorical exclusion determination can be used as a substitute date for the conformity determination date.

2. The conformity status of a federal action automatically lapses five (5) years from the date a final conformity determination is reported under section (4) of this rule, unless the federal action has been completed or a continuous program to implement the federal action has commenced.

3. Ongoing federal activities at a given site showing continuous progress are not new actions and do not require periodic redeterminations so long as such activities are within the scope of the final conformity determination reported under section (4) of this rule.

4. If the federal agency originally determined through the applicability analysis that a conformity determination was not necessary because the emissions for the action were below the limits in subsection (1)(B) of this rule and changes to the action would result in the total emissions from the action being above the limits in subsection (1)(B) of this rule, then the federal agency must make a conformity determination.

(E) Criteria for Determining Conformity of General Federal Actions.

1. An action required under section (1) of this rule, to have a conformity determination for a specific pollutant, will be determined to conform to the applicable implementation plan if, for each pollutant that exceeds the rates in subsection (1)(B) of this rule, or otherwise requires a conformity determination due to the total of direct and indirect emissions from the action, the action meets the requirements of paragraph (3)(E)3. of this rule, and meets any of the following requirements:

A. For any criteria pollutant or precursor, the total of direct and indirect emissions from the action are specifically identified and accounted for in the applicable SIP attainment or maintenance demonstration or reasonable further progress milestone or in a facility-wide emission budget included in a SIP in accordance with subsection (3)(H) of this rule;

B. For precursors of ozone, nitrogen dioxide, or particulate matter (PM), the total of direct and indirect emissions from the

action are fully offset within the same nonattainment or maintenance area (or nearby area of equal or higher classification provided the emissions from that area contribute to the violations, or have contributed to violations in the past, in the area with the federal action) through a revision to the applicable SIP or a similarly-enforceable measure that effects emission reductions so that there is no net increase in emissions of that pollutant;

C. For any directly-emitted criteria pollutant, the total of direct and indirect emissions from the action meet the requirements—

(I) Specified in paragraph (3)(E)2. of this rule, based on area-wide air quality modeling analysis and local air quality modeling analysis; or

(II) Specified in subparagraph (3)(E)1.E. of this rule and, for local air quality modeling analysis, the requirement of paragraph (3)(E)2. of this rule;

D. For carbon monoxide or directly emitted PM—

(I) Where the department determines that an area-wide air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (3)(E)2. of this rule, based on local air quality modeling analysis; or

(II) Where the department determines that an area-wide air quality modeling analysis is appropriate and that a local air quality modeling analysis is not needed, the total of direct and indirect emissions from the action meet the requirements specified in paragraph (3)(E)2. of this rule, based on area-wide modeling, or meet the requirements of subparagraph (3)(E)1.E. of this rule; or

E. For ozone or nitrogen dioxide, and for purposes of parts (3)(E)1.C.(II) and (3)(E)1.D.(II) of this rule, each portion of the action or the action as a whole meets any of the following requirements:

(I) Where EPA has approved a revision to the applicable implementation plan after the area was designated as nonattainment and the state or tribe makes a determination as provided in subpart (3)(E)1.E.(I)(a) of this rule or where the state or tribe makes a commitment as provided in subpart (3)(E)1.E.(I)(b) of this rule.

(a) The total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the department to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable SIP.



(b) The total of direct and indirect emissions from the action (or portion thereof) is determined by the department to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would exceed an emissions budget specified in the applicable implementation plan and the department makes a written commitment to EPA which includes the following:

I. A specific schedule for adoption and submittal of a revision to the applicable implementation plan which would achieve the needed emission reductions prior to the time emissions from the federal action would occur;

II. Identification of specific measures for incorporation into the applicable implementation plan which would result in a level of emissions which, together with all other emissions in the nonattainment or maintenance area, would not exceed any emissions budget specified in the applicable implementation plan;

III. A demonstration that all existing applicable implementation plan requirements are being implemented in the area for the pollutants affected by the federal action, and that local authority to implement additional requirements has been fully pursued;

IV. A determination that the responsible federal agencies have required all reasonable mitigation measures associated with their action; and

V. Written documentation including all air quality analyses supporting the conformity determination.

(c) Where a federal agency made a conformity determination based on a state's or tribe's commitment under subpart (3)(E)1.E.(I)(b) of this rule and the state has submitted a SIP or TIP to EPA covering the time period during which the emissions will occur or is scheduled to submit such a SIP or TIP within eighteen (18) months of the conformity determination, the state commitment is automatically deemed a call for a SIP or TIP revision by EPA under section 110(k)(5) of the CAA, effective on the date of the federal conformity determination and requiring response within eighteen (18) months or any shorter time within which the state or tribe commits to revise the applicable SIP;

(d) Where a federal agency made a conformity determination based on a state or tribal commitment under subpart (3)(E)1.E.(I)(b) of this rule and the state or tribe has not submitted a SIP covering the time period when the emissions will occur or is not scheduled to submit such a SIP within eighteen (18) months of the conformity deter-

mination, the state or tribe must, within eighteen (18) months, submit to EPA a revision to the existing SIP committing to include the emissions in the future SIP revision;

(II) The action (or portion thereof), as determined by the MPO, is specifically included in a current transportation plan and transportation improvement program which have been found to conform to the applicable implementation plan under 10 CSR 10-5.480;

(III) The action (or portion thereof) fully offsets its emissions within the same nonattainment or maintenance area (or nearby area of equal or higher classification provided the emissions from that area contribute to the violations, or have contributed to violations in the past, in the area with the federal action) through a revision to the applicable SIP or an equally-enforceable measure that effects emission reductions equal to or greater than the total of direct and indirect emissions from the action so that there is no net increase in emissions of that pollutant;

(IV) Where EPA has not approved a revision to the relevant SIP since the area was designated or reclassified, the total of direct and indirect emissions from the action for the future years (described in paragraph (3)(F)4. of this rule) do not increase emissions with respect to the baseline emissions, and—

(a) The baseline emissions reflect the historical activity levels that occurred in the geographic area affected by the proposed federal action during—

I. The most current calendar year with a complete emission inventory available before an area is designated unless EPA sets another year;

II. The emission budget in the applicable SIP; or

III. The year of the baseline inventory in the PM<sub>10</sub> applicable SIP; and

(b) The baseline emissions are the total of direct and indirect emissions calculated for the future years (described in paragraph (3)(F)4. of this rule) using the historic activity levels (described in subpart (3)(E)1.E.(IV)(a) of this rule) and appropriate emission factors for the future years; or

(V) Where the action involves regional water or wastewater projects, such projects are sized to meet only the needs of population projections that are in the applicable SIP.

2. The area-wide and local air quality modeling analyses must—

A. Meet the requirements in subsection (3)(F) of this rule; and

B. Show that the action does not—

(I) Cause or contribute to any new violation of any standard in any area; or

(II) Increase the frequency or severity of any existing violation of any standard in any area.

3. Notwithstanding any other requirements of this section, an action subject to this rule will not be determined to conform to the applicable implementation plan unless the total of direct and indirect emissions from the action is in compliance or consistent with all relevant requirements and milestones contained in the applicable implementation plan, such as elements identified as part of the reasonable further progress schedules, assumptions specified in the attainment or maintenance demonstration, prohibitions, numerical emission limits, and work practice requirements, and such action is otherwise in compliance with all relevant requirements of the applicable implementation plan.

4. Any analyses conducted under this section must be completed, and any mitigation requirements necessary for a finding of conformity must be identified before the determination of conformity is made.

(F) Procedures for Conformity Determinations of General Federal Actions.

1. The analyses conducted under this rule must be based on the latest planning assumptions.

A. All planning assumptions must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other agency authorized to make such estimates, where available.

B. Any revisions to these estimates used as part of the conformity determination, including projected shifts in geographic location or level of population, employment, travel, and congestion, must be approved by the MPO or other agency authorized to make such estimates for the area.

2. The analyses conducted under this rule must be based on the latest and most accurate emission estimation techniques available as described below, unless such techniques are inappropriate, the federal agency may obtain written approval from the appropriate EPA regional administrator for a modification or substitution, of another technique on a case-by-case basis or, where appropriate, on a generic basis for a specific federal agency program.

A. For motor vehicle emissions, the most current version of the motor vehicle emissions model specified by EPA and made available for use in the preparation or revision of SIPs in the state must be used for the conformity analysis as specified below—

(I) The EPA must publish in the *Federal Register* a notice of availability of any new motor vehicle emissions model; and



(II) A grace period of three (3) months applies during which the motor vehicle emissions model previously specified by EPA as the most current version may be used unless EPA announces a longer grace period in the *Federal Register*. Conformity analyses for which the analysis was begun during the grace period or no more than three (3) years before the *Federal Register* notice of availability of the latest emission model may continue to use the previous version of the model specified by EPA.

B. For non-motor vehicle sources, including stationary and area source emissions, the latest emission factors specified by EPA in the “Compilation of Air Pollutant Emission Factors” (AP-42, <http://www.epa.gov/ttn/chiefs/efpac>) must be used for the conformity analysis unless more accurate emission data are available, such as actual stack test data from stationary sources which are part of the conformity analysis.

3. The air quality modeling analyses conducted under this rule must be based on the applicable air quality models, databases, and other requirements specified in the most recent version of the “Guideline on Air Quality Models” (40 CFR 51, Appendix W), unless—

A. The guideline techniques are inappropriate, in which case the model may be modified or another model substituted on a case-by-case basis or, where appropriate, on a generic basis for a specific federal agency program; and

B. Written approval of the EPA regional administrator is obtained for any modification or substitution.

4. The analyses conducted under this rule must be based on the total of direct and indirect emissions from the action and must reflect emission scenarios that are expected to occur under each of the following cases:

A. The attainment year specified in the SIP or, if the SIP does not specify an attainment year, the latest attainment year possible under the Act;

B. The last year for which emissions are projected in the maintenance plan;

C. The year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis; and

D. Any year for which the applicable SIP specifies an emissions budget.

(G) Mitigation of Air Quality Impacts.

1. Any measures that are intended to mitigate air quality impacts must be identified (including the identification and quantification of all emission reductions claimed) and the process for implementation (including any

necessary funding of such measures and tracking of such emission reductions) and enforcement of such measures must be described, including an implementation schedule containing explicit timelines for implementation.

2. Prior to determining that a federal action is in conformity, the federal agency making the conformity determination must obtain written commitments from the appropriate persons or agencies to implement any mitigation measures which are identified as conditions for making conformity determinations.

3. Persons or agencies voluntarily committing to mitigation measures to facilitate positive conformity determinations must comply with the obligations of such commitments.

4. In instances where the federal agency is licensing, permitting, or otherwise approving the action of another governmental or private entity, approval by the federal agency must be conditioned on the other entity meeting the mitigation measures set forth in the conformity determination.

5. When necessary because of changed circumstances, mitigation measures may be modified so long as the new mitigation measures continue to support the conformity determination. Any proposed change in the mitigation measures is subject to the reporting requirements of section (4) of this rule and the public participation requirements of subsection (3)(C) of this rule.

6. Written commitments to mitigation measures must be obtained prior to a positive conformity determination and such commitments must be fulfilled.

7. After a state or tribe revises its SIP or TIP and EPA approves that SIP revision, any agreements, including mitigation measures, necessary for a conformity determination will be both state or tribal and federally enforceable. Enforceability through the applicable SIP or TIP will apply to all persons who agree to mitigate direct and indirect emissions associated with a federal action for a conformity determination.

(H) Conformity Evaluation for Federal Installations with Facility-Wide Emission Budgets.

1. The state, local, or tribal agency responsible for implementing and enforcing the SIP or TIP can, in cooperation with federal agencies or third parties authorized by the agency that operate installations subject to federal oversight, develop and adopt a facility-wide emission budget to be used for demonstrating conformity under subparagraph (3)(E)1.A. of this rule. The facility-wide budget must meet the following criteria:

A. Be for a set time period;

B. Cover the pollutants or precursors of the pollutants for which the area is designated nonattainment or maintenance;

C. Include specific quantities allowed to be emitted on an annual or seasonal basis;

D. The emissions from the facility along with all other emissions in the area will not exceed the emission budget for the area;

E. Include specific measures to ensure compliance with the budget, such as periodic reporting requirements or compliance demonstration, when the federal agency is taking an action that would otherwise require a conformity determination;

F. Be submitted to EPA as a SIP revision; and

G. The SIP revision must be approved by EPA.

2. The facility-wide budget developed and adopted in accordance with paragraph (3)(H)1. of this rule can be revised by following the requirements in paragraph (3)(H)1. of this rule.

3. Total direct and indirect emissions from federal actions in conjunction with all other emissions subject to general conformity from the facility that do not exceed the facility budget adopted pursuant to paragraph (3)(H)1. of this rule are “presumed to conform” to the SIP and do not require a conformity analysis.

4. If the total direct and indirect emissions from the federal actions in conjunction with the other emissions subject to general conformity from the facility exceed the budget adopted pursuant to paragraph (3)(H)1. of this rule, the action must be evaluated for conformity. A federal agency can use the compliance with the facility-wide emissions budget as part of the demonstration of conformity, i.e., the agency would have to mitigate or offset the emissions that exceed the emission budget.

5. If the SIP for the area includes a category for construction emissions, the negotiated budget can exempt construction emissions from further conformity analysis.

(I) Emissions Beyond the Time Period Covered by the SIP. If a federal action would result in total direct and indirect emissions above the applicable thresholds which would be emitted beyond the time period covered by the SIP, the federal agency can—

1. Demonstrate conformity with the last emission budget in the SIP; or

2. Request the state or tribe to adopt an emissions budget for the action for inclusion in the SIP. The state or tribe must submit a SIP or TIP revision to EPA within eighteen (18) months either including the emissions in the existing SIP or establishing an enforceable



commitment to include the emissions in future SIP revisions based on the latest planning assumptions at the time of the SIP revision. No such commitment by a state or tribe may restrict a state's or tribe's ability to require Reasonably Available Control Technology (RACT), Reasonably Available Control Measures (RACM), or any other control measures within the state's or tribe's authority to ensure timely attainment of the NAAQS.

(J) Timing of Offsets and Mitigation Measures.

1. The emissions reductions from an offset or mitigation measure used to demonstrate conformity must occur during the same calendar year as the emission increases from the action except as provided in paragraph (3)(J)2. of this rule.

2. The state or tribe may approve emissions reductions in other years provided—

A. The reductions are greater than the emission increases by the following ratios:

- (I) Extreme nonattainment areas 1.5:1
- (II) Severe nonattainment areas 1.3:1
- (III) Serious nonattainment areas 1.2:1
- (IV) Moderate nonattainment areas 1.15:1
- (V) All other areas 1.1:1

B. The time period for completing the emissions reductions cannot exceed twice the period of the emissions; and

C. The offset or mitigation measure with emissions reductions in another year will not—

- (I) Cause or contribute to a new violation of any air quality standard;
- (II) Increase the frequency or severity of any existing violation of any air quality standard; or
- (III) Delay the timely attainment of any standard or any interim emissions reductions or other milestones in any area.

3. The approval by the state or tribe of an offset or mitigation measure with emissions reductions in another year does not relieve the state or tribe of any obligation to meet any SIP or CAA milestone or deadline. The approval of an alternate schedule for mitigation measures is at the discretion of the state or tribe, and are under no obligation to approve an alternate schedule.

(K) Inter-Precursor Mitigation Measures and Offsets. Federal agencies must reduce the same type of pollutant as being increased by the federal action except the state or tribe may approve offsets or mitigation measures of different precursors of the same criteria pollutant, if such trades are allowed by a state or tribe in a SIP- or TIP-approved NSR regulation, is technically justified, and has a

demonstrated environmental benefit.

(L) Early Emission Reduction Credit Programs at Federal Facilities and Installations Subject to Federal Oversight.

1. Federal facilities and installations subject to federal oversight can, with the approval of the state or tribal agency responsible for the SIP or TIP in that area, create an early emissions reductions credit program. The federal agency can create the emission reduction credits in accordance with the requirements in paragraph (3)(L)2. of this rule and can use them in accordance with paragraph (3)(L)3. of this rule.

2. Creation of emission reduction credits.

A. Emissions reductions must be quantifiable through the use of standard emission factors or measurement techniques. If non-standard factors or techniques to quantify the emissions reductions are used, the federal agency must receive approval from the state or tribal agency responsible for the implementation of the SIP or TIP and from EPA's regional office. The emission reduction credits do not have to be quantified before the reduction strategy is implemented but must be quantified before the credits are used in the general conformity evaluation.

B. The emission reduction methods must be consistent with the applicable SIP or TIP attainment and reasonable further progress demonstrations.

C. The emissions reductions cannot be required by or credited to other applicable SIP or TIP provisions.

D. Both the state or tribe and federal air quality agencies must be able to take legal action to ensure continued implementation of the emission reduction strategy. In addition, private citizens must also be able to initiate action to ensure compliance with the control requirement.

E. The emissions reductions must be permanent or have a specific time frame for the reductions.

F. The federal agency must document the emissions reductions and provide a copy of the document to the state or tribal air quality agency and the EPA regional office for review. The documentation must include a detailed description of the emission reduction strategy and a discussion of how it meets the requirements of subparagraphs (3)(L)2.A. through (3)(L)2.E. of this rule.

3. Use of emission reduction credits. The emission reduction credits created in accordance with paragraph (3)(L)2. of this rule can be used, subject to the following limitations, to reduce the emissions increase from a federal action at the facility for the conformity evaluation.

A. If the technique used to create the emission reduction is implemented at the same facility as the federal action and could have occurred in conjunction with the federal action, then the credits can be used to reduce the total direct and indirect emissions used to determine the applicability of the regulation under section (1) of this rule and as offsets or mitigation measures under subsection (3)(E) of this rule.

B. If the technique used to create the emission reduction is not implemented at the same facility as the federal action or could not have occurred in conjunction with the federal action, then the credits cannot be used to reduce the total direct and indirect emissions used to determine the applicability of the regulation under section (1) of this rule, but can be used to offset or mitigate the emissions under subsection (3)(E) of this rule.

C. Emissions reductions credits must be used in the same year in which they are generated.

D. Once the emission reduction credits are used, they cannot be used as credits for another conformity evaluation. However, unused credits from a strategy used for one (1) conformity evaluation can be used for another conformity evaluation as long as the reduction credits are not double counted.

E. Federal agencies must notify the state or tribal air quality agency responsible for the implementation of the SIP or TIP and EPA Regional Office when the emission reduction credits are being used.

(4) Reporting and Record Keeping.

(A) A federal agency making a conformity determination under section (4), subsections (3)(B) through (3)(G), and subsections (3)(I) through (3)(K) of this rule must provide to the appropriate EPA regional office(s), state and local air quality agencies, any federally-recognized Indian tribal government in the nonattainment or maintenance area, and, where applicable, affected federal land managers, the agency designated under section 174 of the CAA and the MPO, a thirty (30)-day notice which describes the proposed action and the federal agency's draft conformity determination on the action. If the action has multi-regional or national impacts (e.g., the action will cause emission increases in excess of the *de minimis* levels identified in subsection (1)(B) of this rule in three (3) or more of EPA's regions), the federal agency, as an alternative to sending it to EPA regional offices, can provide the notice to EPA's Office of Air Quality Planning and Standards.

(B) A federal agency must notify the appropriate EPA regional office(s), state and local air quality agencies, any federally-recognized Indian tribal government in the



nonattainment or maintenance area, and, where applicable, affected federal land managers, the agency designated under section 174 of the CAA and the MPO, within thirty (30) days after making a final conformity determination under this rule.

(C) The draft and final conformity determination shall exclude any restricted information or confidential business information. The disclosure of restricted information and confidential business information is controlled by the applicable laws, regulations, security manuals, or executive orders concerning the use, access, and release of such materials. Subject to applicable procedures to protect restricted information from public disclosure, any information or materials excluded from the draft or final conformity determination or supporting materials may be made available in a restricted information annex to the determination for review by federal and state representatives who have received appropriate clearances to review the information.

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

*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.*

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

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

*PURPOSE: This rule requires owners of municipal solid waste landfills to report their landfill's design capacity and non-methane organic compound (NMOC) emissions. Landfills having design capacities of two and one-half (2.5) million cubic meters or greater and NMOC emission rates of fifty (50) megagrams or greater shall design, install and operate a gas collection and control system.*

*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 mate-*

*rial. The entire text of the rule is printed here.*

(1) Applicability.

(A) This rule applies to each municipal solid waste (MSW) landfill for which construction, reconstruction or modification was commenced before May 30, 1991, and has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition. Landfills for which construction, reconstruction or modification was commenced on May 30, 1991, or after, are covered under the Environmental Protection Agency's New Source Performance Standard for Municipal Solid Waste Landfills.

(B) Physical or operational changes made to an existing MSW landfill solely to comply with this rule are not considered construction, reconstruction, or modification for the purposes of this rule.

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

(D) For purposes of obtaining an operating permit under Title V of the Clean Air Act, the owner or operator of an MSW landfill subject to this rule with a design capacity less than two and one-half (2.5) million megagrams or two and one-half (2.5) million cubic meters is not subject to the requirements to obtain an operating permit for the landfill under 40 Code of Federal Regulations (CFR) 70 or 71, unless the landfill is otherwise subject to either 40 CFR 70 or 71. For purposes of submitting a timely application for an operating permit under 40 CFR 70 or 71, the owner or operator of an MSW landfill subject to the rule with a design capacity greater than or equal to two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters on the effective date of EPA approval of the state's program under section 111(d) of the Clean Air Act (June 23, 1998), and not otherwise subject to either 40 CFR 70 or 71, becomes subject to the requirements of 40 CFR 70.5(a)(1)(i) or 71.5(a)(1)(i) ninety (90) days after the effective date of such 111(d) program approval, even if the design capacity report is submitted earlier.

(E) When an MSW landfill subject to this rule is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under 40 CFR 70 or 71 for the landfill if the landfill is not otherwise subject to the requirements of either 40 CFR 70 or 71 and if either of the following conditions is met:

1. The landfill was never subject to a requirement for a control system under section (3) of this rule; or

2. The owner or operator meets the conditions for control system removal specified in section 60.752(b)(2)(v) of 40 CFR 60, Subpart WWW.

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

(3) Standards for Air Emissions from Municipal Solid Waste Landfills. Provisions of 40 CFR 51, 40 CFR 52, 40 CFR 60, and 40 CFR 258 are incorporated by reference in subsection (3)(C) of this rule. Also, the *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, AP-42*, Fifth Edition, January 1995 (hereafter AP-42), as published by the Government Printing Office, 732 North Capitol Street NW, Washington, DC 20401, shall apply and is hereby incorporated by reference, including Supplement E dated November 1998. This rule does not incorporate any subsequent amendments or additions.

(A) Each owner or operator of an MSW landfill having a design capacity less than two and one-half (2.5) million megagrams by mass or two and one-half (2.5) million cubic meters by volume shall submit an initial design capacity report to the director as provided in subsection (8)(A) of this rule. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this rule except as provided for in paragraphs (3)(A)1. and 2. of this rule.

1. The owner or operator shall submit to the director an amended design capacity report, as provided for in paragraph (8)(A)3. of this rule.

2. When an increase in the maximum design capacity of a landfill exempted from the provisions of subsection (3)(B) through section (10) of this rule on the basis of the design capacity exemption in subsection (3)(A) of this rule results in a revised maximum design capacity equal to or greater than two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters, the owner or operator shall comply with the provisions of subsection (3)(B) of this rule.

(B) Each owner or operator of an MSW landfill having a design capacity equal to or greater than two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters shall either comply with paragraph (3)(B)2. of this rule or calculate an NMOC emission rate for the landfill using



the procedures specified in section (5) of this rule. The NMOC emission rate shall be recalculated annually, except as provided in subparagraph (8)(B)1.B. of this rule. The owner or operator of an MSW landfill subject to this rule with a design capacity greater than or equal to two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters is subject to 40 CFR 70 or 71 permitting requirements.

1. If the calculated NMOC emission rate is less than fifty (50) megagrams per year, the owner or operator shall—

A. Submit an annual emission report to the director, except as provided for in subparagraph (8)(B)1.B. of this rule; and

B. Recalculate the NMOC emission rate annually using the procedures specified in paragraph (5)(A)1. of this rule until such time as the calculated NMOC emission rate is equal to or greater than fifty (50) megagrams per year or the landfill is closed.

(I) If the NMOC emission rate, upon recalculation required in subparagraph (3)(B)1.B. of this rule is equal to or greater than fifty (50) megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (3)(B)2. of this rule.

(II) If the landfill is permanently closed, a closure notification shall be submitted to the director as provided for in subsection (8)(D) of this rule.

2. If the calculated NMOC emission rate is equal to or greater than fifty (50) megagrams per year, the owner or operator shall—

A. Submit a collection and control system design plan prepared by a professional engineer to the director within one (1) year. Permit modification approval from the Missouri Department of Natural Resources' Solid Waste Management Program shall be required prior to construction of any gas collection system.

(I) The collection and control system as described in the plan shall meet the design requirements of subparagraph (3)(B)2.B. of this rule.

(II) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, record keeping, or reporting provisions of sections (4) through (9) of this rule proposed by the owner or operator.

(III) The collection and control system design plan shall either conform with specifications for active collection systems in section (10) of this rule or include a demonstration to the director's satisfaction of the sufficiency of the alternative provisions to section (10) of this rule.

(IV) The director shall review the information submitted under parts (3)(B)2.A.(I), (II), and (III) of this rule and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, horizontal trenches only, leachate collection components, and passive systems;

B. Install a collection and control system that captures the gas generated within the landfill as required by part (3)(B)2.B.(I) or (II) and subparagraph (3)(B)2.C. of this rule within thirty (30) months after the first annual report in which the emission rate equals or exceeds fifty (50) megagrams per year, unless Tier 2 or Tier 3 sampling under section (5) of this rule demonstrates that the emission rate is less than fifty (50) megagrams per year, as specified in paragraph (8)(C)1. or 2. of this rule.

(I) An active collection system shall—

(a) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(b) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of—

I. Five (5) years or more if active; or

II. Two (2) years or more if closed or at final grade;

(c) Collect gas at a sufficient extraction rate; and

(d) Be designed to minimize off-site migration of subsurface gas.

(II) A passive collection system shall—

(a) Comply with the provisions specified in subparts (3)(B)2.B.(I)(a), (b), and (d) of this rule; and

(b) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40;

C. Route all the collected gas to one (1) or more of the following control systems:

(I) An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in subsection (5)(E) of this rule;

(II) A control system designed and operated to reduce NMOC by ninety-eight (98) weight-percent, or, when an enclosed

combustion device is used for control, to either reduce NMOC by ninety-eight (98) weight-percent or reduce the outlet NMOC concentration to less than twenty parts per million by volume (20 ppmv), dry basis as hexane at three percent (3%) oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than one hundred eighty (180) days after the initial startup of the approved control system using the test methods specified in subsection (5)(D) of this rule.

(a) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(b) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in section (7) of this rule; or

(III) A system that routes the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of part (3)(B)2.C.(I) or (II) of this rule;

D. Operate the collection and control device installed to comply with this rule in accordance with the provisions of sections (4), (6), and (7) of this rule;

E. The collection and control system may be capped or removed provided that all the conditions of parts (3)(B)2.E.(I), (II), and (III) of this rule are met—

(I) The landfill shall be no longer accepting solid waste and be permanently closed under the requirements of 40 CFR 258.60. A closure report shall be submitted to the director as provided in subsection (8)(D) of this rule;

(II) The collection and control system shall have been in operation a minimum of fifteen (15) years; and

(III) Following the procedures specified in subsection (5)(B) of this rule, the calculated NMOC gas produced by the landfill shall be less than fifty (50) megagrams per year on three (3) successive test dates. The test dates shall be no less than ninety (90) days apart, and no more than one hundred eighty (180) days apart; and

F. The planning, awarding of contracts, and installation of MSW landfill air emission collection and control equipment capable of meeting the emission standards in subsection (3)(B) of this rule shall be accomplished within thirty (30) months after the date the initial NMOC emission rate report



shows NMOC emissions equal or exceed fifty (50) megagrams per year.

(C) The specific citations of 40 CFR 51, 40 CFR 52, 40 CFR 60, and 40 CFR 258 referenced in this rule and published July 1, 2011, shall apply and are hereby incorporated by reference in this rule, as published by the Office of the Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions. Certain terms used in 40 CFR refer to federal officers and agencies. The following terms applicable to Missouri shall be substituted where appropriate for the delegable federal counterparts: Director shall be substituted for Administrator, and Missouri Department of Natural Resources shall be substituted for EPA, EPA Regional Office, or Environmental Protection Agency.

(4) Operational Standards for Collection and Control Systems. Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of subparagraph (3)(B)2.B. of this rule shall—

(A) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for—

1. Five (5) years or more if active; or
2. Two (2) years or more if closed or at final grade;

(B) Operate the collection system with negative pressure at each wellhead except under the following conditions:

1. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in paragraph (8)(F)1. of this rule;

2. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan; and

3. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the director and EPA;

(C) Operate each interior wellhead in the collection system with a landfill gas temperature less than fifty-five degrees Celsius (55 °C) and with either a nitrogen level less than twenty percent (20%) or an oxygen level less than five percent (5%). The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significant-

ly inhibit anaerobic decomposition by killing methanogens.

1. The nitrogen level shall be determined using Method 3C of 40 CFR 60, Appendix A, unless an alternative test method is established as allowed by subparagraph (3)(B)2.A. of this rule.

2. Unless an alternative test method is established as allowed by subparagraph (3)(B)2.A. of this rule, the oxygen shall be determined by an oxygen meter using Method 3A or 3C of 40 CFR 60, Appendix A, except that—

A. The span shall be set so that the regulatory limit is between twenty and fifty percent (20%–50%) of the span;

B. A data recorder is not required;

C. Only two (2) calibration gases are required, a zero (0) and span, and ambient air may be used as the span;

D. A calibration error check is not required; and

E. The allowable sample bias, zero (0) drift, and calibration drift are plus or minus ten percent ( $\pm 10\%$ );

(D) Operate the collection system so that the methane concentration is less than five hundred (500) parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at thirty (30)-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the thirty (30)-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing;

(E) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with subparagraph (3)(B)2.C. of this rule. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one (1) hour;

(F) Operate the control or treatment system at all times when the collected gas is routed to the system; and

(G) If monitoring demonstrates that the operational requirements in subsection (4)(B), (C), or (D) of this rule are not met, corrective

action shall be taken as specified in paragraph (3)(A)3. through 5. or subsection (6)(C) of this rule. If corrective actions are taken as specified in section (6) of this rule, the monitored exceedance is not a violation of the operational requirements in this section.

(5) Test Methods and Procedures.

(A) NMOC Emission Rate Calculation.

1. The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in subparagraph (5)(A)1.A. of this rule or the equation provided in subparagraph (5)(A)1.B. of this rule. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in subparagraph (5)(A)1.A. of this rule, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in subparagraph (5)(A)1.B., for part of the life of the landfill. The values to be used in both equations are 0.05 per year for  $k$ , one hundred seventy (170) cubic meters per megagram for  $L_o$ , and four thousand (4,000) parts per million by volume as hexane for the  $C_{NMOC}$ . For landfills located in geographical areas with a thirty (30)-year annual average precipitation of less than twenty-five inches (25"), as measured at the nearest representative official meteorologic site, the  $k$  value to be used is 0.02 per year.

A. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known. The mass of non-degradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for  $M_i$  if the documentation of the nature and amount of such wastes is maintained.

$$M_{NMOC} = \sum_{i=1}^n 2kL_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

- $M_{NMOC}$  = Total NMOC emission rate from the landfill, megagrams per year
- $k$  = methane generation rate constant, year<sup>-1</sup>
- $L_o$  = methane generation potential, cubic meters per megagram solid waste
- $M_i$  = mass of solid waste in the  $i^{\text{th}}$  section, megagrams
- $t_i$  = age of the  $i^{\text{th}}$  section, years
- $C_{NMOC}$  = concentration of NMOC, parts per million by volume as hexane





$3.6 \times 10^{-9}$  = conversion factor

B. The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown. The mass of non-degradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R, if the documentation provisions of paragraph (9)(D)2. of this rule are followed.

$$M_{\text{NMOC}} = 2 L_o R (e^{-kc} - e^{-kt}) / (C_{\text{NMOC}}) (3.6 \times 10^{-9})$$

where,

- $M_{\text{NMOC}}$  = mass emission rate of NMOC, megagrams per year
- $L_o$  = methane generation potential, cubic meters per megagram solid waste
- R = average annual acceptance rate, megagrams per year
- k = methane generation rate constant, year<sup>-1</sup>
- t = age of landfill, years
- $C_{\text{NMOC}}$  = concentration of NMOC, parts per million by volume as hexane
- c = time since closure, years.  
For active landfill c = 0 and  $e^{-kc} = 1$

$3.6 \times 10^{-9}$  = conversion factor

2. Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of fifty (50) megagrams per year.

A. If the NMOC emission rate calculated in paragraph (5)(A)1. of this rule is less than fifty (50) megagrams per year, then the landfill owner shall submit an emission rate report as provided in paragraph (8)(B)1. of this rule, and shall recalculate the NMOC mass emission rate annually as required under paragraph (3)(B)1. of this rule.

B. If the calculated NMOC emission rate is equal to or greater than fifty (50) megagrams per year, then the landfill owner shall either comply with paragraph (3)(B)2. of this rule, or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (5)(A)3. of this rule.

3. Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two (2) sample probes per hectare of landfill surface that has retained waste for at least two (2) years. If the landfill is larger than twenty-five (25) hectares in area, only fifty (50) sam-

ples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one (1) sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of 40 CFR 60, Appendix A. Method 18 of 40 CFR 60, Appendix A may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one (1) liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the minimum list of compounds to be tested shall be those published in AP-42, minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to  $C_{\text{NMOC}}$  as hexane by multiplying by the ratio of its carbon atoms divided by six (6). If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of 40 CFR 60, Appendix A by six (6) to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two (2) sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three (3) samples must be collected from the header pipe.

A. The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in subparagraph (5)(A)1.A. or B. of this rule and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (5)(A)1. of this rule.

B. If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than fifty

(50) megagrams per year, then the landfill owner or operator shall either comply with paragraph (3)(B)2. of this rule, or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (5)(A)4. of this rule.

C. If the resulting NMOC mass emission rate is less than fifty (50) megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in paragraph (8)(B)1. of this rule and retest the site-specific NMOC concentration every five (5) years using the methods specified in this section.

4. Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of 40 CFR 60, Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in subparagraph (5)(A)1.A. or B. of this rule and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (5)(A)3. of this rule instead of the default values provided in paragraph (5)(A)1. of this rule. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of fifty (50) megagrams per year.

A. If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than fifty (50) megagrams per year, the owner or operator shall comply with paragraph (3)(B)2. of this rule.

B. If the NMOC mass emission rate is less than fifty (50) megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in paragraph (8)(B)1. of this rule and shall recalculate the NMOC mass emission rate annually, as provided in paragraph (8)(B)1. of this rule using the equations in paragraph (5)(A)1. of this rule and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (5)(A)3. of this rule. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

5. The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (5)(A)3. and 4. of this rule if the method has been approved by the director and EPA.

(B) After the installation of a collection and control system in compliance with section (6) of this rule, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in subparagraph (3)(B)2.E. of this rule, using the following equation:

$$M_{\text{NMOC}} = (1.89 \times 10^{-3}) (Q_{\text{LFG}}) (C_{\text{NMOC}})$$

where,

$M_{\text{NMOC}}$  = mass emission rate of NMOC, megagrams per year

$Q_{\text{LFG}}$  = flow rate of landfill gas, cubic meters per minute

$C_{\text{NMOC}}$  = NMOC concentration, parts per million by volume as hexane

1. The flow rate of landfill gas,  $Q_{\text{LFG}}$ , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of 40 CFR 60, Appendix A.

2. The average NMOC concentration,  $C_{\text{NMOC}}$ , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of 40 CFR 60, Appendix A. If using Method 18, the minimum list of compounds to be tested shall be those published in AP-42. The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by six (6) to convert from  $C_{\text{NMOC}}$  as carbon to  $C_{\text{NMOC}}$  as hexane.

3. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the director and EPA as provided in part (3)(B)2.A.(II) of this rule.

(C) When calculating emissions for prevention of significant deterioration (PSD) purposes, the owner or operator of each MSW landfill subject to the provisions of this rule shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 52.21 using AP-42 or other approved measurement procedures.

(D) For the performance test required in part (3)(B)2.C.(II) of this rule, Method 25, 25C, or Method 18 of 40 CFR 60, Appendix A shall be used to determine compliance with ninety-eight (98) weight-percent efficiency or the twenty (20) ppmv outlet concentration level, unless another method to demonstrate

compliance has been approved by the director and EPA as provided by part (3)(B)2.A.(II) of this rule. Method 3 or 3A of 40 CFR 60, Appendix A shall be used to determine oxygen for correcting the NMOC concentration as hexane to three percent (3%). In cases where the outlet concentration is less than fifty (50) ppm NMOC as carbon (eight (8) ppm NMOC as hexane), Method 25A of 40 CFR 60, Appendix A should be used in place of Method 25. If using Method 18, the minimum list of compounds to be tested shall be those published in AP-42. The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = \frac{\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}}{\text{NMOC}_{\text{in}}}$$

where,

$\text{NMOC}_{\text{in}}$  = mass of NMOC entering control device

$\text{NMOC}_{\text{out}}$  = mass of NMOC exiting control device

(E) For the performance test required in part (3)(B)2.C.(I), the net heating value of the combusted landfill gas as determined in 40 CFR 60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C of 40 CFR 60, Appendix A. A minimum of three (3) thirty (30)-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4).

(6) Compliance Provisions.

(A) Except as provided in part (3)(B)2.A.(II) of this rule, the specified methods in paragraphs (6)(A)1. through (6)(A)6. of this rule shall be used to determine whether the gas collection system is in compliance with subparagraph (3)(B)2.B. of this rule—

1. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with subpart (3)(B)2.B.(I)(a) of this rule, one (1) of the following equations shall be used. The  $k$  and  $L_0$  kinetic factors should be those published in AP-42 or other site specific values demonstrated to be appropriate and approved by the director and EPA. If  $k$  has been determined as specified in paragraph (5)(A)4. of this rule, the value of  $k$  determined from the test shall be used. A value of no more than fifteen (15) years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated num-

ber of years until closure.

A. For sites with unknown year-to-year solid waste acceptance rate—

$$Q_m = 2L_0 R (e^{-kc} - e^{-kt})$$

where,

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year

$L_0$  = methane generation potential, cubic meters per megagram solid waste

$R$  = average annual acceptance rate, megagrams per year

$k$  = methane generation rate constant, year<sup>-1</sup>

$t$  = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure,  $t$  is the age of the landfill at installation, years

$c$  = time since closure, years (for an active landfill  $c = 0$  and  $e^{-kc} = 1$ )

B. For sites with known year-to-year solid waste acceptance rate—

$$Q_m = \sum_{i=1}^n 2 k L_0 M_i (e^{-kt_i})$$

where,

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year

$k$  = methane generation rate constant, year<sup>-1</sup>

$L_0$  = methane generation potential, cubic meters per megagram solid waste

$M_i$  = mass of solid waste in the  $i^{\text{th}}$  section, megagrams

$t_i$  = age of the  $i^{\text{th}}$  section, years

C. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in subparagraphs (6)(A)1.A. and B. of this rule. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in subparagraphs (6)(A)1.A. or B. of this rule or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of



the gas control system equipment;

2. For the purposes of determining sufficient density of gas collectors for compliance with subpart (3)(B)2.B.(1)(b) of this rule, the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards;

3. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with subpart (3)(B)2.B.(1)(c) of this rule, the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within five (5) calendar days, except for the three (3) conditions allowed under subsection (4)(B) of this rule. If negative pressure cannot be achieved without excess air infiltration within fifteen (15) calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within one hundred twenty (120) days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the director for approval;

4. Owners or operators are not required to expand the system as required in paragraph (6)(A)3. of this rule during the first one hundred eighty (180) days after gas collection system start-up;

5. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in subsection (4)(C) of this rule. If a well exceeds one (1) of these operating parameters, action shall be initiated to correct the exceedance within five (5) calendar days. If correction of the exceedance cannot be achieved within fifteen (15) calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within one hundred twenty (120) days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the director for approval; and

6. An owner or operator seeking to demonstrate compliance with subpart (3)(B)2.B.(1)(d) of this rule through the use of a collection system not conforming to the specifications provided in section (10) of this

rule shall provide information satisfactory to the director and EPA as specified in part (3)(B)2.A.(III) of this rule demonstrating that off-site migration is being controlled.

(B) For purposes of compliance with subsection (4)(A) of this rule, each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in subparagraph (3)(B)2.A. of this rule. Each well shall be installed no later than sixty (60) days of the date in which the initial solid waste has been in place for a period of—

1. Five (5) years or more if active; or
2. Two (2) years or more if closed or at final grade.

(C) The following procedures shall be used for compliance with the surface methane operational standard as provided in subsection (4)(D) of this rule:

1. After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at thirty (30)-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subsection (6)(D) of this rule;

2. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least thirty (30) meters from the perimeter wells;

3. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of 40 CFR 60, Appendix A, except that the probe inlet shall be placed within five to ten centimeters (5–10 cm) of the ground. Monitoring shall be performed during typical meteorological conditions;

4. Any reading of five hundred (500) parts per million (ppm) or more above background at any location shall be recorded as a monitored exceedance and the actions specified in subparagraphs (6)(C)4.A. through E. of this rule shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of subsection (4)(D) of this rule.

A. The location of each monitored exceedance shall be marked and the location recorded.

B. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made, and the location shall be remonitored within ten (10) calendar days of detecting the exceedance.

C. If the remonitoring of the location

shows a second exceedance, additional corrective action shall be taken, and the location shall be monitored again within ten (10) days of the second exceedance. If the remonitoring shows a third exceedance for the same location, the action specified in subparagraph (6)(C)4.E. of this rule shall be taken, and no further monitoring of that location is required until the action specified in subparagraph (6)(C)4.E. of this rule has been taken.

D. Any location that initially showed an exceedance but has a methane concentration less than five hundred (500) ppm methane above background at the ten (10)-day remonitoring specified in subparagraph (6)(C)4.B. or C. of this rule shall be remonitored one (1) month from the initial exceedance. If the one (1)-month remonitoring shows a concentration less than five hundred (500) ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the one (1)-month remonitoring shows an exceedance, the actions specified in subparagraph (6)(C)4.C. or E. of this rule shall be taken.

E. For any location where monitored methane concentration equals or exceeds five hundred (500) ppm above background three (3) times within a quarterly period, a new well or other collection device shall be installed within one hundred twenty (120) calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes, or control device, and a corresponding timeline for installation may be submitted to the director for approval; and

5. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(D) Each owner or operator seeking to comply with the provisions in subsection (6)(C) of this rule shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

1. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of 40 CFR 60, Appendix A, except that “methane” shall replace all references to VOC;

2. The calibration gas shall be methane, diluted to a nominal concentration of five hundred (500) ppm in air;

3. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of 40 CFR 60, Appendix A, the instrument evaluation procedures of section 4.4 of Method 21 shall be used; and

4. The calibration procedures provided



in section 4.2 of Method 21 of 40 CFR 60, Appendix A shall be followed immediately before commencing a surface monitoring survey.

(E) The provisions of this rule apply at all times, except during periods of start-up, shut-down, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed five (5) days for collection systems and shall not exceed one (1) hour for treatment or control devices.

(7) Monitoring of Operations. Except as provided in part (3)(B)2.A.(II) of this rule—

(A) Each owner or operator seeking to comply with part (3)(B)2.B.(I) of this rule for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device, or an access port for temperature measurements at each wellhead and—

1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in paragraph (6)(A)3. of this rule;

2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in paragraph (6)(A)5. of this rule; and

3. Monitor temperature of the landfill gas on a monthly basis as provided in paragraph (6)(A)5. of this rule;

(B) Each owner or operator seeking to comply with subparagraph (3)(B)2.C. of this rule using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent ( $\pm 1\%$ ) of the temperature being measured expressed in degrees Celsius or plus or minus one-half degree Celsius ( $\pm 0.5^\circ\text{C}$ ), whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than forty-four (44) megawatts; and

2. A device that records flow to or bypass of the control device. The owner or operator shall either—

A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or

B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted

through the bypass line;

(C) Each owner or operator seeking to comply with subparagraph (3)(B)2.C. of this rule using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and

2. A device that records flow to or bypass of the flare. The owner or operator shall either—

A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every fifteen (15) minutes; or

B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line;

(D) Each owner or operator seeking to demonstrate compliance with subparagraph (3)(B)2.C. of this rule using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the director as provided in part (3)(B)2.A.(II) of this rule describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The director shall review the information and either approve it or request that additional information be submitted. The director may specify additional appropriate monitoring procedures;

(E) Each owner or operator seeking to install a collection system that does not meet the specifications in section (10) of this rule or seeking to monitor alternative parameters to those required by sections (4) through (7) of this rule shall provide information satisfactory to the director as provided in parts (3)(B)2.A.(II) and (III) of this rule describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The director may specify additional appropriate monitoring procedures; or

(F) Each owner or operator seeking to demonstrate compliance with subsection (6)(C) of this rule, shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in subsection (6)(D) of this rule. Any closed landfill that has no monitored

exceedances of the operational standard in three (3) consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of five hundred (500) ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(8) Reporting Requirements. Except as provided in part (3)(B)2.A.(II) of this rule—

(A) Each owner or operator subject to the requirements of this rule shall submit an initial design capacity report to the director.

1. The initial design capacity report shall be submitted within ninety (90) days of the rule effective date.

2. The initial design capacity report shall contain the following information:

A. A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the provisions of the state or local construction or operating permit; and

B. The maximum design capacity of the landfill. Where the maximum design capacity is specified in the state or local construction permit, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The state, local agency, or director may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

3. An amended design capacity report shall be submitted to the director providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above two and one-half (2.5) million megagrams and two and one-half (2.5) million cubic meters. The amended design capacity report shall be submitted within ninety (90) days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first;

(B) Each owner or operator subject to the requirements of this rule shall submit an NMOC emission rate report to the director initially and annually thereafter, except as provided for in subparagraph (8)(B)1.B. or



paragraph (8)(B)3. of this rule. The director may request such additional information as may be necessary to verify the reported NMOC emission rate.

1. The NMOC emission rate report shall contain an annual or five (5)-year estimate of the NMOC emission rate calculated using the formula and procedures provided in subsection (5)(A) or (B) of this rule, as applicable.

A. The initial NMOC emission rate report shall be submitted within ninety (90) days of the rule effective date and may be combined with the initial design capacity report required in subsection (8)(A) of this rule. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in subparagraph (8)(B)1.B. and paragraph (8)(B)3. of this rule.

B. If the estimated NMOC emission rate as reported in the annual report to the director is less than fifty (50) megagrams per year in each of the next five (5) consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five (5)-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five (5) years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the director. This estimate shall be revised at least once every five (5) years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five (5)-year estimate, a revised five (5)-year estimate shall be submitted to the director. The revised estimate shall cover the five (5)-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

2. The NMOC emission rate report shall include all the data, calculations, sample reports, and measurements used to estimate the annual or five (5)-year emissions.

3. Each owner or operator subject to the requirements of this rule is exempted from the requirements of paragraphs (8)(B)1. and 2. of this rule after the installation of a collection and control system in compliance with paragraph (3)(B)2. of this rule, during such time as the collection and control system is in operation and in compliance with sections (4) and (6) of this rule;

(C) Each owner or operator subject to the provisions of subparagraph (3)(B)2.A. of this rule shall submit a collection and control system design plan to the director within one (1) year of the first report, required under subsection (8)(B) of this rule, in which the emis-

sion rate equals or exceeds fifty (50) megagrams per year, except as follows:

1. If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in paragraph (5)(A)3. of this rule and the resulting rate is less than fifty (50) megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than fifty (50) megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within one hundred eighty (180) days of the first calculated exceedance of fifty (50) megagrams per year; and

2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant  $k$ , as provided in Tier 3 in paragraph (5)(A)4. of this rule, and the resulting NMOC emission rate is less than fifty (50) Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant  $k$  shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of paragraph (5)(A)4. of this rule and the resulting site-specific methane generation rate constant  $k$  shall be submitted to the director within one (1) year of the first calculated emission rate exceeding fifty (50) megagrams per year;

(D) Each owner or operator of a controlled landfill shall submit a closure report to the director within thirty (30) days of waste acceptance cessation. The director may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the director, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4);

(E) Each owner or operator of a controlled landfill shall submit an equipment removal report to the director thirty (30) days prior to removal or cessation of operation of the control equipment.

1. The equipment removal report shall contain all of the following items:

A. A copy of the closure report submitted in accordance with subsection (8)(D) of this rule;

B. A copy of the initial performance test report demonstrating that the fifteen (15)-year minimum control period has expired; and

C. Dated copies of three (3) successive NMOC emission rate reports demonstrating that the landfill is no longer producing fifty (50) megagrams or greater of NMOC per year.

2. The director may request such additional information as may be necessary to verify that all of the conditions for removal in subparagraph (3)(B)2.E. of this rule have been met;

(F) Each owner or operator of a landfill seeking to comply with paragraph (3)(B)2. of this rule using an active collection system designed in accordance with subparagraph (3)(B)2.B. of this rule shall submit to the director annual reports of the recorded information in paragraphs (8)(F)1. through 6. of this rule. The initial annual report shall be submitted within one hundred eighty (180) days of installation and start-up of the collection and control system and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under subsection (9)(C) of this rule.

1. Value and length of time for exceedance of applicable parameters monitored under subsections (7)(A), (B), (C), and (D) of this rule.

2. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under section (7) of this rule.

3. Description and duration of all periods when the control device was not operating for a period exceeding one (1) hour and length of time the control device was not operating.

4. All periods when the collection system was not operating in excess of five (5) days.

5. The location of each exceedance of the five hundred (500) ppm methane concentration as provided in subsection (4)(D) of this rule and the concentration recorded at each location for which an exceedance was recorded in the previous month.

6. The date of installation and the location of each well or collection system expansion added pursuant to paragraph (6)(A)3., subsection (6)(B), and paragraph (6)(C)4. of this rule; and

(G) Each owner or operator seeking to comply with subparagraph (3)(B)2.A. of this rule shall include the following information with the initial performance test report required under 40 CFR 60.8:

1. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface



collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

2. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

3. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

4. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

5. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

6. The provisions for the control of off-site migration.

(9) Record Keeping Requirements. Except as provided in part (3)(B)2.A.(II) of this rule—

(A) Each owner or operator of an MSW landfill subject to the provisions of subsection (3)(B) of this rule shall keep for at least five (5) years up-to-date, readily accessible, on-site records of the design capacity report which triggered subsection (3)(B) of this rule, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Records may be maintained off-site if they are retrievable within four (4) hours. A longer period is acceptable if records are needed for an unresolved enforcement action. Either paper copy or electronic formats are acceptable;

(B) Each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (9)(B)1. through 4. of this rule as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of five (5) years. Records of the control device vendor specifications shall be maintained until removal.

1. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with subparagraph (3)(B)2.B. of this rule—

A. The maximum expected gas generation flow rate as calculated in paragraph (6)(A)1. of this rule. The owner or operator

may use another method to determine the maximum gas generation flow rate, if the method has been approved by the director and EPA; and

B. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in paragraph (10)(A)1. of this rule.

2. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with subparagraph (3)(B)2.C. of this rule through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than forty-four (44) megawatts—

A. The average combustion temperature measured at least every fifteen (15) minutes and averaged over the same time period of the performance test; and

B. The percent reduction of NMOC determined as specified in part (3)(B)2.C.(II) of this rule achieved by the control device.

3. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with subpart (3)(B)2.C.(II)(a) of this rule through use of a boiler or process heater of any size—a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

4. Where an owner or operator subject to the provisions of this rule seeks to demonstrate compliance with part (3)(B)2.C.(I) of this rule through use of an open flare, the flare type (that is, steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent;

(C) Each owner or operator of a controlled landfill subject to the provisions of this rule shall keep for five (5) years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in section (7) of this rule as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

1. The following constitute exceedances that shall be recorded and reported under subsection (8)(F) of this rule:

A. For enclosed combustors except for boilers and process heaters with design

heat input capacity of forty-four (44) megawatts (150 million British thermal units per hour) or greater, all three (3)-hour periods of operation during which the average combustion temperature was more than twenty-eight degrees Celsius (28 °C) below the average combustion temperature during the most recent performance test at which compliance with subparagraph (3)(B)2.C. of this rule was determined; and

B. For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under subparagraph (9)(B)3.A. of this rule.

2. Each owner or operator subject to the provisions of this rule shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under section (7) of this rule.

3. Each owner or operator subject to the provisions of this rule who uses a boiler or process heater with a design heat input capacity of forty-four (44) megawatts or greater to comply with subparagraph (3)(B)2.C. of this rule shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other state or local regulatory requirements.)

4. Each owner or operator seeking to comply with the provisions of this rule by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under subsection (7)(C) of this rule, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent;

(D) Each owner or operator subject to the provisions of this rule shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

1. Each owner or operator subject to the provisions of this rule shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subsection (6)(B) of this rule.

2. Each owner or operator subject to the provisions of this rule shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste



excluded from collection as provided in subparagraph (10)(A)3.A. of this rule as well as any nonproductive areas excluded from collection as provided in subparagraph (10)(A)3.B. of this rule;

(E) Each owner or operator subject to the provisions of this rule shall keep for at least five (5) years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in section (4) of this rule, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance; and

(F) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than two and one-half (2.5) million megagrams or two and one-half (2.5) million cubic meters, as provided in the definition of design capacity, shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within four (4) hours of request. Either paper copy or electronic formats are acceptable.

(10) Specifications for Active Collection Systems.

(A) Each owner or operator seeking to comply with subparagraph (3)(B)2.A. of this rule shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the director and EPA as provided in parts (3)(B)2.A.(III) and (IV) of this rule:

1. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat;

2. The sufficient density of gas collection devices determined in paragraph (10)(A)1. of this rule shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior; and

3. The placement of gas collection devices determined in paragraph (10)(A)1. of this rule shall control all gas producing areas, except as provided by subparagraphs (10)(A)3.A. and B. of this rule.

A. Any segregated area of asbestos or nondegradable material may be excluded from collection if documentation is provided as specified under subsection (9)(D) of this rule. The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the director upon request.

B. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent (1%) of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the director upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

- $Q_i$  = NMOC emission rate from the  $i^{th}$  section, megagrams per year
- $k$  = methane generation rate constant, year<sup>-1</sup>
- $L_o$  = methane generation potential, cubic meters per megagram solid waste
- $M_i$  = mass of the degradable solid waste in the  $i^{th}$  section, megagram
- $t_i$  = age of the solid waste in the  $i^{th}$  section, years
- $C_{NMOC}$  = concentration of non-methane organic compounds, parts per million by volume
- $3.6 \times 10^{-9}$  = conversion factor

C. The values for  $k$  and  $C_{NMOC}$  determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for  $k$ ,  $L_o$ , and  $C_{NMOC}$  provided in paragraph (5)(A)1. of this

rule or the alternative values from (5)(A)5. of this rule shall be used. The mass of non-degradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in subparagraph (10)(A)3.A. of this rule.

(B) Each owner or operator seeking to comply with part (3)(B)2.A.(I) of this rule shall construct the gas collection devices using the following equipment or procedures:

1. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to—convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards established in this rule. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration;

2. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations; and

3. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one (1) sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(C) Each owner or operator seeking to comply with part (3)(B)2.A.(I) of this rule shall convey the landfill gas to a control system in compliance with subparagraph (3)(B)2.C. of this rule through the collection header pipe(s). The gas mover equipment



shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

1. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (10)(C)2. of this rule shall be used; and

2. For new collection systems, the maximum flow rate shall be in accordance with paragraph (6)(A)1. of this rule.

*AUTHORITY: section 643.050, RSMo Supp. 2011.\* 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.*

*\*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 condensibles.

(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)—Volatile organic compound (VOC)—Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any such organic compound other

than those listed in 40 CFR 51.100(s)(1) as specified in 10 CSR 10-6.030(21).

##### (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, Shut-down, 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 cham-

ber 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 cal-

culated 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 condensibles and use the following 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 Carbon Dioxide, Excess Air, and Dry Molecular Weight;

4. Method 4—Determination of Moisture in Gases;

5. Method 5—Determination of Particulate Emissions from Stationary Sources; and

6. Method 202—Determination of Condensible Particulate Emissions from Stationary Sources of 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 as specified by 40 CFR part 60, Appendix A—Reference Methods:

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 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 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 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.*

*\*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 1

| 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             |
| <b>Total</b>                  |       |      | <b>45,818</b> |

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;

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

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 genera-

- tor 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 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 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, nor are they replaced by any provisions in this rule:

- A. 40 CFR 97.611(a);
- B. 40 CFR 97.611(b)(1); and
- C. 40 CFR 97.612(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 97.602 through 40 CFR 97.635;
- B. 40 CFR 97.611(b)(2);
- C. 40 CFR 97.611(c)(5)(iii);
- D. 40 CFR 97.612(b);
- E. 40 CFR 97.621(h); and
- F. 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 1

| Source Name                        | Source ID | Unit ID | CSAPR SO <sub>2</sub> Group 1 unit allowances (tons) for 2017 and thereafter |
|------------------------------------|-----------|---------|--|
| Asbury                             | 2076      | 1       | 4,480  |
| 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     | 9,833 |
| 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;

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

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 gener-

- ator 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.*

*\*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 evi-*

*dence 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, wastewater, 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  $\text{NO}_x$  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  $\text{NO}_x$  emissions.

(5) Test Methods.  $\text{NO}_x$  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 $\text{NO}_x$ Emissions From Large Stationary Internal Combustion Engines

*PURPOSE: This rule reduces emissions of oxides of nitrogen ( $\text{NO}_x$ ) to ensure compliance with the federal  $\text{NO}_x$  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  $\text{NO}_x$  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 ( $\text{NO}_x$ ) 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 subsection (2)(C) 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  $\text{NO}_x$  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  $\text{NO}_x$  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 NO<sub>x</sub> emission rate for each applicable engine and not exceed this emission rate limit for any ozone season thereafter using:

$$ER = (NO_{x \text{ act}}/UR) \times 1.102 \times 10^{-6} \times 0.1 \text{ where,}$$

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

NO<sub>x act</sub> = the highest actual NO<sub>x</sub> 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 NO<sub>x act</sub>

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 NO<sub>x</sub> 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 NO<sub>x</sub> 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 NO<sub>x</sub> 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 NO<sub>x</sub> 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 NO<sub>x</sub> emissions cap;

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

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

(IV) The controlled NO<sub>x</sub> 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 NO<sub>x</sub> emission rate or the following NO<sub>x</sub> 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 NO<sub>x</sub> 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 10-6.030(22); 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; and

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 reasons 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.*

*\*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.

**Table I**

| 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. The evidence supporting the need for this proposed rulemaking, per section 536.016, RSMo, is a necessity evidence memorandum dated March 5, 2008.*

(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 shall 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, or equivalent and mercury concentrations less than forty (40) micrograms per cubic meter as measured using ASTM D5954, or ASTM D6350, 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, or equivalent and mercury concentrations less than forty (40) micrograms per cubic meter as measured using ASTM D5954, or ASTM D6350, 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 shall no longer be existing but shall be considered as new.

(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 shall be 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 shall be 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 <sup>0.259</sup>                        |
|   | >5,000                  | 0.12  |
| Springfield-Greene County & Outstate Missouri | ≤10                     | 0.60  |
|   | >10 and <10,000         | E=0.90Q <sup>0.174</sup>                        |
|   | ≥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 <sup>0.301</sup>                   |
|   | >1,000                  | 0.10                                       |
| Springfield-Greene County & Outstate Missouri | ≤10                     | 0.60                                       |
|   | >10 and <2,000          | E=1.31Q <sup>0.338</sup>                   |
|   | ≥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 shall be 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<sub>i</sub> = the actual emission rate of the ith indirect heating source in pounds per mmBtu;

Q<sub>i</sub> = the rated heat input of the ith 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 shall 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 shall apply 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<sub>i</sub>, 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 (Environmental Protection Agency (EPA) *Compilation of Air Pollution 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; 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 2000.\* Original rule filed Feb. 25, 2011, effective Oct. 30, 2011.*

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

**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 non-compliance, 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 pol-

lutant 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 proto-

cols 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 previ-

ously 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.\* Original rule filed Aug. 2, 2002, effective April 30, 2003. Amended: Filed May 17, 2004, effective Dec. 30, 2004. Amended: Filed Oct. 15, 2008, effective July 30, 2009. Amended: Filed Jan. 31, 2012, effective Sept. 30, 2012.*

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