**RULES**
**OF**
**THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION**
**DIVISION OF AIR POLLUTION CONTROL**

**CHAPTER 1200-03-27**
**NITROGEN OXIDES**

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**1200-03-27-.01 DEFINITIONS.**

(1) For the purpose of this rule, the following definitions apply:

(a) "Facility" means any source or group of sources located within a contiguous area, and under common control.

(b) "Nitrogen Oxides" means all oxides of nitrogen except nitrous oxide.

(2) The definitions in Chapter 1200-03-02 apply for those terms not defined in Chapter 1200-03-27.

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-105.* ***Administrative History:*** *Original rule filed March 5, 1993; effective April 19, 1993.*

**1200-03-27-.02 GENERAL PROVISIONS AND APPLICABILITY.**

(1) It is the purpose of this chapter to establish emission standards and requirements for certain sources of nitrogen oxides.

(2) Upon mutual agreement of any air contaminant source and the Technical Secretary, an emission limit more restrictive than that otherwise specified in this chapter may be established. Also, upon mutual agreement of any air contaminant source and the Technical Secretary, operating hours, process flow rates, or any other operating parameter may be established as a binding limit which the source must adhere to. Any items mutually agreed to shall be stated as a special condition for any permit or order concerning the source. Violation of this mutual agreement shall result in enforcement action.

(3) Nothing in this chapter shall be construed to exempt sources from meeting other applicable rules in this division and standards and requirement derived from or according to rules of this division, including, but not limited to, new source review requirements, permit conditions, and standards and requirements mutually agreed to or included in the State Implementation Plan.

(4) No owner or operator subject to these regulations may build, erect, install, or use any article, machine, equipment, process, or other method the use of which conceals emissions that would otherwise constitute non-compliance with an applicable regulation. This includes, but is not limited to, the use of gaseous diluents to achieve compliance, and the piecemeal carrying

out of an operating to avoid coverage by a regulation that applies only to operations larger than a specified size.

(5) The owner or operator of a source for which legal notice must be published to effect a source-specific compliance method, compliance demonstration method, record keeping record, reporting record, etc., shall be responsible for all costs associated with publishing the required legal notice.

(6) The owner or operator of any facility in Anderson, Blount, Davidson, Knox, Rutherford, Shelby, Sumner, Williamson, or Wilson County which has actual emissions from stationary sources of 25 tons or more of volatile organic compounds (VOCs) and/or nitrogen oxides during a calendar year shall report to their permitting authority information and data concerning these emissions. This information and data shall be in the form prescribed by the Technical Secretary, and shall be submitted before March 31 of the year following the calendar year for which the information and data is reported. The first report shall be for the 1993 calendar year, and shall be submitted before March 31, 1994. Each report shall be signed by an official of the company, certifying that the information and data contained in the report is accurate to the best knowledge of the individual certifying the report.

***Authority:*** *T.C.A. §§ 4-5-201, et seq.; 68-201-101, et seq.; and 68-201-105.* ***Administrative History:*** *Original rule filed March 5, 1993; effective, April 19, 1993. Amendment filed April 18, 1994; effective July 2, 1994. Amendment filed May 10, 1994; effective July 24, 1994. Amendment filed August 14, 1995; effective October 28, 1995. Amendment filed September 9, 1996; effective November 23, 1996. Amendments filed June 6, 2018; effective September 4, 2018.*

**1200-03-27-.03 STANDARDS AND REQUIREMENTS.**

(1) Emission standards for sources of nitrogen oxides apply as follows:

(a) Any owner or operator of a stationary source in Davidson, Rutherford, Sumner, Williamson, or Wilson County which emits or has the potential to emit 100 tons per year or more of nitrogen oxides (NOx) before control shall apply reasonably available control technology (RACT) to control NOx emissions from that source; and

(b) Specifically, the owner or operator of a tangentially fired coal burning boiler having heat input capacity in excess of 600 million BTU per hour in Davidson, Rutherford, Sumner, Williamson, or Wilson County shall not allow emissions of nitrogen oxides from that boiler in excess of 0.45 pound per million BTU (30-day rolling average) (RACT).

(2) In calculation to determine whether the 100-ton-per-year threshold specified in subparagraph (1)(a) of this rule is met, the nitrogen oxides contribution from all process emissions sources and fuel burning equipment, including those sources and that equipment listed for exemption in paragraph (4) of this rule, shall be totaled.

(3) Compliance schedules apply as follows:

(a) The owner or operator of a boiler subject to the requirements of subparagraph (1)(b) of this rule shall:

1. Submit a final control plan, acceptable to the Technical Secretary, for the installation of nitrogen oxides emission control systems and/or modifications of fuel burning equipment to the Technical Secretary by April 26, 1994;

2. Complete construction or installation of equipment by May 31, 1995; and

(Rule 1200-03-27-.03, continued)

3. Demonstrate full compliance with nitrogen oxides reasonably available control technology by July 31, 1995, using approved test methods and procedures; and

(b) The owner or operator of any process emission source or fuel burning equipment subject to the requirements of subparagraph (1)(a) but not subparagraph (1)(b) of this rule shall either:

1. Satisfy the schedule as follows:

(i) Submit a demonstration of appropriate reasonably available control technology by February 25, 1994;

(ii) Submit a final control plan, acceptable to the Technical Secretary, for the installation of nitrogen oxides emission control systems and/or modifications of the source or equipment to the Technical Secretary by April 26, 1994;

(iii) Complete construction or installation of equipment by May 31, 1995; and

(iv) Demonstrate full compliance with nitrogen oxides reasonably available control technology by July 31, 1995, using approved test methods and procedures; or

2. In lieu of satisfying the schedule specified in part 1. of this subparagraph, satisfy the schedule as follows:

(i) By February 25, 1994, submit a demonstration, acceptable to the Technical Secretary, that reasonably available control technology for nitrogen oxides from the process emission source or fuel burning equipment according to the schedule specified in part 1. of this subparagraph is not practicable, for example, due to equipment unavailability or system unreliability;

(ii) Within 60 days after approval by the Technical Secretary of this demonstration, submit a schedule, acceptable to the Technical Secretary, containing dates for accomplishment on the process emission source or fuel burning equipment of the steps listed in the schedule specified in part 1. of this subparagraph; and

(iii) Satisfy the schedule approved by the Technical Secretary.

(4) The reasonably available control technology requirements of this rule shall not apply to any of the following:

(a) A process emission source or fuel burning installation which neither emits nor has the potential to emit one ton or more per year of nitrogen oxides before control;

(b) Fuel burning equipment or a component of a process emission source which does not operate between April 1 and October 31; or

(c) An air pollution control device which is installed to effect compliance with a requirement of other chapters of Division 1200-03.

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-105.* ***Administrative History:*** *Original rule filed September 7, 1993; effective November 27, 1993.*

**1200-03-27-.04 STANDARDS FOR CEMENT KILNS.**

(1) The requirements of this rule apply only to kilns with process rates of at least the following:

(a) Long dry kilns----------12 tons per hour (TPH);

(b) Long wet kilns----------10 TPH;

(c) Preheater kilns----------16 TPH; and

(d) Precalciner and preheater/precalciner kilns--------22 TPH.

(2) For the purpose of this rule, definitions apply as follows:

(a) “Clinker” means the product of a Portland cement kiln from which finished cement is manufactured by milling and grinding.

(b) “Long dry kiln” means a kiln 14 feet or larger in diameter, 400 feet or greater in length, which employs no preheating of the feed. The inlet feed to the kiln is dry.

(c) “Long wet kiln” means a kiln 14 feet or larger in diameter, 400 feet or greater in length, which employs no preheating of the feed. The inlet feed to the kiln is a slurry.

(d) “Low-NOx burners” means combustion equipment designed to reduce flame turbulence, delay fuel/air mixing, and establish fuel-rich zones for initial combustion.

(e) “Mid-kiln system firing” means 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 nitrogen oxide (NOx) emissions through:

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

2. Reducing conditions at the fuel injection point that may destroy some of the NOx formed upstream in the kiln burning zone.

(f) “Portland cement” means a hydraulic cement produced by ssentially of hydraulic calcium silicates, usually containing one or more of the forms of calcium sulfate as an interground addition.

(g) “Portland cement kiln” means 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.

(h) “Precalciner kiln” means a kiln system where the feed to the kiln is preheated in cyclone chambers and utilizes a second burner to calcine material in a separate vessel attached to the preheater prior to the final fusion in a kiln which forms clinker.

(i) “Preheater kiln” means a kiln system where the feed to the kiln is preheated in cyclone chambers prior to the final fusion in a kiln which forms clinker.

(3) After May 31, 2004, the owner or operator of any Portland cement kiln subject to this rule shall not operate the kiln during May 1 through September 30 unless the kiln has installed and operates during May 1 to September 30 with at least one of the following:

(a) Low-NOx burners;

(Rule 1200-03-27-.04, continued)

(b) Mid-kiln system firing;

(c) Alternative control techniques approved by the Technical Secretary and the EPA as achieving at least the same emissions decreases as with low-NOx burners or mid-kiln system firing; or

(d) Reasonably available control technology approved by the Technical Secretary and the EPA.

(4) The owner or operator subject to the requirements of paragraph (3) of this rule shall comply with the requirements as follows:

(a) By May 31, 2004, submit to the Technical Secretary the identification number and type of each kiln subject to this rule, the name and address of the facility where the kiln is located, and the name and telephone number of the person responsible for demonstrating compliance with paragraph (3); and

(b) By October 31, 2004, submit to the Technical Secretary a report documenting for that kiln the total $NO_x$ emissions from May 31, 2004, through September 30, 2004, and beginning in 2005 submit by October 31 of each year to the Technical Secretary a report documenting NOx emissions from May 1 through September 30 of that year.

(5) By May 31, 2004, the owner or operator of a kiln subject to this rule shall submit to the Technical Secretary a demonstration of compliance with the requirements of paragraph (3). If compliance is being achieved by use of prescribed equipment, for example low-NOx burners or mid-kiln system firing, the demonstration of compliance shall be written certification to the Technical Secretary that this equipment is installed and is in use. If compliance is being achieved by use of alternative control techniques approved by the Technical Secretary and the EPA, demonstration of compliance shall as specified by the Technical Secretary and the EPA. In the case of compliance proposed to be achieved by use of alternative control techniques, a plan for compliance demonstration shall be submitted to the Technical Secretary by May 1, 2003. Upon receipt the Technical Secretary shall immediately forward a copy of the plan to the EPA. By November 1, 2003, the Technical Secretary shall specify in writing to the owner or operator of the kiln how compliance shall be demonstrated, this specification consistent with methods and requirements specified by the EPA following its review of the submitted plan.

(6) By December 31 of each year, beginning in 2004, the owner or operator of a kiln subject to this rule shall submit to the Technical Secretary a written certification that compliance with the requirements of paragraph (3) has been maintained during that year's five-month period May 1 through September 30, except for 2004 when compliance is to be maintained from May 31 through September 30. The methods of determining that this compliance has been maintained shall be as specified on the major source operating permit issued for the facility at which the kiln is operated.

(7) Beginning May 31, 2004, the owner or operator of a kiln subject to this rule shall maintain records for May 31 through September 30 of that year, and in subsequent years for May 1 through September 30, that include the data as follows:

(a) The date, time, and duration of any startup, shutdown, or malfunction in the operation of the cement kiln or its emissions monitoring equipment or of any scheduled maintenance activity that affects NOx emissions or emissions monitoring;

(b) The results of any compliance testing; and

(Rule 1200-03-27-.04, continued)

(c) Other data required by permit to be maintained.

(8) The records listed in paragraph (7) of this rule shall be retained on-site for a minimum of 2 years following the calendar year for which they are made and shall be made available to the Technical Secretary for his review upon request.

(9) The requirements of this rule shall not apply to periods of scheduled maintenance activities that affect NOx emissions.

(10) The requirements of this rule shall not apply to periods of malfunctions, startups, and shutdowns. These periods are subject to the requirements of Chapter 1200-03-20.

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-105.* ***Administrative History:*** *Original rule filed July 9, 2001; effective September 22, 2001.*

**1200-03-27-.05 RESERVED.**

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-105.* ***Administrative History:*** *Original rule filed July 9, 2001; effective September 22, 2001.*

**1200-03-27-.06 RESERVED.**

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-101, et seq.* ***Administrative History:*** *Original rule filed July 9, 2001; effective September 22, 2001. Amendment filed May 13, 2003; effective July 27, 2003. Amendment filed August 5, 2003; effective October 19, 2003. Amendment filed October 10, 2012; effective January 8, 2013.*

**1200-03-27-.07 VOLUNTARY NOx EMISSIONS REDUCTION PROGRAM.**

(1) The purpose of this rule is to provide a method by which sources that emit NOx but are not subject to the requirements of Rule .06 of this chapter can voluntarily make emission reductions and thereby earn marketable NOx allowances for use in the EPA's NOx Budget Trading Program.

(2) Terms used in this rule shall have the meanings given in Rule .06 of this chapter, Rule .02 of this chapter, and other rules of Division 1200-03, in this order of precedence.

(3) Any owner or operator of a stationary source may submit to the Technical Secretary a NOx emission reduction proposal, as described in paragraph (6) below, for reducing NOx emissions during control periods, if each emission unit from which NOx reductions at the source will be obtained meets the following criteria at the time a NOx emission reduction proposal is submitted and during each control period thereafter for which creditable emission reductions are claimed:

(a) Discharges NOx emissions through a stack;

(b) Is fossil fuel-fired;

(c) Has a major source operating permit issued under Chapter 1200-03-09-.02 or a comparable local program rule;

(d) Is not subject to the requirements of Rule .06 of this chapter, including opt-in units;

(e) Is in compliance with all NOx emission requirements applicable to the source and unit so that any NOx reductions made pursuant to this rule are surplus to those requirements;

(f) Installed or implemented a NOx emission control strategy after July 1, 2002;

(g) Conducted an emission baseline determination using the protocol described in paragraph (5) below prior to initiating the NOx emission control strategy;

(h) Makes emission reductions that are not the result of shutting down; and

(i) Is not an IC engine that according to EPA's final NOx SIP Call inventory had actual average daily NOx emissions of one ton or more during the five-month period May 1 through September 30, 1995.

(4) Any owner or operator of an eligible unit may participate by:

(a) Submitting a NOx emission reduction proposal in accordance with paragraph (6) below;

(b) Making NOx emission reductions during a control period that are federally enforceable, quantifiable, and surplus to regulatory requirements; and

(c) Submitting a quantification report, in accordance with paragraph (7) below, after any control period for which creditable reductions are claimed.

(5) Emission reductions made at a participating unit shall be quantified using an emission reduction quantification protocol approved by the EPA or approved by the Technical Secretary and submitted to EPA for approval. The emissions measurements recorded and reported in accordance with this protocol shall be used to determine the emission reductions made by the source under this rule and eligible to be issued as allowances for use in the EPA's NOx Budget Trading Program. Each participating unit shall comply with the applicable monitoring requirements prescribed by the approved protocol.

(6) Each NOx emission reduction proposal shall contain the elements and be processed as follows:

(a) Each NOx emission reduction proposal shall include the following:

1. Information identifying each emission reduction unit from which NOx emission reductions have been or will be achieved, including the name, location, operating permit number, and identification number of the source and unit;

2. Description of the NOx controls present on the unit prior to making emission reductions;

3. Explanation of the methods used to achieve the NOx emission reductions;

4. Identification of the emission reduction quantification protocol, approved by the EPA or approved by the Technical Secretary and submitted to EPA for approval, that will be used to calculate the proposed emission reductions; and

5. Emissions baseline determination for each unit made in accordance with the approved protocol described in paragraph (5) above.

(b) The Technical Secretary shall notify in writing the owner or operator submitting a NOx emission reduction proposal of his decision with respect to the proposal. If the Technical Secretary disapproves a proposal, this written notice shall include a statement of the specific reasons for the disapproval of the proposal. Following such a

(Rule 1200-03-27-.07, continued)

disapproval the owner or operator may submit an amended or a different NOx emissions reduction proposal for the unit.

(7) Each NOx emission reduction quantification report shall be submitted and processed as follows:

(a) By October 30 following the control period during which the emission reductions were made, the owner or operator of the participating unit must submit a quantification report to the Technical Secretary stating the reductions achieved during the control period.

(b) The quantification report shall include the following:

1. The amount in tons of the NOx emission reductions made during the control season, calculated based on the approved quantification protocol and including supporting calculations and documentation;

2. Certification by the owner or operator that the NOx reductions achieved during the control period were calculated based on the approved protocol; and

3. A written statement signed by the owner or operator certifying the following:

Based on information and belief formed after reasonable inquiry, I believe the statements and information in this document are true, accurate and complete.

(c) The Technical Secretary shall review the quantification report and either approve the emission reductions as being in accordance with the quantification protocol or disapprove them. If they are approved, the Technical Secretary shall notify the EPA of such approval in accordance with paragraph (8) below. If they are disapproved, the Technical Secretary shall notify the source in writing and shall state the specific reasons for the disapproval, The source may rectify the deficiencies in its quantification report and submit an amended report.

(8) Upon approval of a quantification report, the Technical Secretary shall notify the EPA of the number of allowances to be transferred from the state's general account into an account of the source or its designee for use in the federal NOx Budget Trading Program. The total number of allowances to be transferred shall be ninety percent (90%) of the creditable NOx emission reductions achieved by the unit. The remaining ten percent (10%) shall be retired by the state. The Administrator shall record the transfer.

(9) Each NOx allowance issued for NOx emission reductions meeting the requirements of this rule is an authorization to emit one ton of NOx in accordance with the federal NOx Budget Trading Program.

(10) Within 90 days after the NOx allowance transfer deadline for the NOx Budget Trading Program, the Technical Secretary shall provide the Administrator a report reconciling the allowances transferred for the purpose of this rule, including:

(a) The number of allowances deposited into the state's general account for the control period immediately preceding such deadline;

(b) The number of allowances earned by sources pursuant to this rule; and

(c) The number of unused allowances, which shall be retired.

(Rule 1200-03-27-.07, continued)

(11) The owner or operator of a source submitting a quantification report that contains an error that affects an allocation must notify the Technical Secretary in writing within 30 days of the error.

(12) If the owner or operator of a unit has submitted a quantification report that incorrectly overstated the amount of emission reductions achieved and, as a result of this report, allowances in excess of those that should have been have been transferred from the state's general account were transferred into another account for use in the federal NOx Budget Trading Program, the owner or operator shall place into the state's general account an amount of allowances equal to three times the amount of the overstatement within 30 days of discovery of the overstatement by the owner or operator.

(13) The owner or operator of a source, or its designee, shall maintain all records used to calculate the emission reductions in accordance with the quantification protocol. Each record shall be maintained for five (5) years following the date the record is created and shall be made available for inspection by the Technical Secretary or his representative immediately upon request.

(14) After the third control period this program has been in effect, and every three years thereafter, the Technical Secretary shall evaluate the program and submit a report to the board, summarizing the results of the evaluation.

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-105.* ***Administrative History:*** *Original rule filed September 11, 2003; effective November 25, 2003.*

**1200-03-27-.08 RESERVED.**

**1200-03-27-.09 COMPLIANCE PLANS FOR $NO_X$ EMMISSIONS FROM STATIONARY INTERNAL COMBUSTION (IC) ENGINES.**

(1) For the purposes of this rule, the following definitions shall apply:

(a) "Affected Engine" means any stationary IC engine that is a Large NOx SIP Call Engine, or other stationary IC engine that is subject to NOx control under a compliance plan established pursuant to paragraph (3) of this rule.

(b) "Engine Seasonal NOx 2007 Tonnage Reduction" means the year 2007 seasonal NOx emissions reductions value (tons) for a Large NOx SIP Call Engine which is calculated as the difference between the 2007 Ozone Season Base NOx Emissions and the 2007 Ozone Season Budget NOx Emissions contained in the NOx SIP Call Engine Inventory.

(c) "Facility Seasonal NOx 2007 Tonnage Reduction" means the total of the Engine Seasonal NOx 2007 Tonnage Reductions attributable to all of an owner/operator's Large NOx SIP Call Engines.

(d) "Large NOx SIP Call Engine" means a stationary IC engine identified and designated as "large" in the NOx SIP Call Engine Inventory as emitting more than one ton of NOx per average ozone season day in 1995.

(e) "NOx SIP Call Engine Inventory" means the inventory of IC engines compiled by EPA as part of the NOx SIP Call Rule, including the Technical Amendments (*Federal Register*/Vol. 65, No. 42/March 2, 2000, Technical Amendment to the Finding of Significant Contribution and Rulemaking for Certain States for Purposes of Reducing Regional Transport of Ozone), and the adjustment of the 2007 Budget NOx Control Efficiency to 82 percent for large gas-fired engines (*Federal Register*/Vol. 69, No.

(Rule 1200-03-27-.09, continued)

77/April 21, 2004, Interstate Ozone Transport: Response to Court Decisions on the NOx SIP Call, NOx SIP Call Technical Amendments, and Section 126 Rules).

(f) "Past NOx Emission Rate" means the emission rate of an Affected Engine in grams per brake horsepower-hour (g/bhp-hr) as determined by performance testing consistent with the requirements of 40 CFR part 60, Appendix A. Where such performance test data are not available, the Past NOx Emission Rate may be determined by the Technical Secretary on a case-by-case basis using, for example, appropriate emission factors or data from the NOx SIP Call Engine Inventory. For Large NOx SIP Call Engines, the Past NOx Emission Rate is the uncontrolled emission rate.

(g) "Projected Operating Hours" means the projected actual number of hours of operation per ozone season for an Affected Engine.

(h) "Projected NOx Emission Rate" means the projected emission rate in g/bhp-hr after installation of controls on an Affected Engine.

(i) "Stationary internal combustion engine" means any 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 location to another and remains at a single site at a building, structure, facility, or installation for more than 12 consecutive months. Any engine (or engines) that replaces 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.

(j) "Ozone season" means the period from May 1 through September 30.

(2) The requirements of this rule apply to the owner or operator of any Large NOx SIP Call Engine.

(3) (a) After May 1, 2007, an owner or operator of a Large NOx SIP Call Engine shall not operate the engine in the period May 1 through September 30 of 2007 and any subsequent year unless the owner or operator complies with the requirements of a compliance plan which meets the provisions listed below.

1. The compliance plan must be approved by the Technical Secretary.

2. The compliance plan must demonstrate enforceable emission reductions from one or more stationary internal combustion engines equal to or higher than the Facility Seasonal NOx 2007 Tonnage Reduction.

3. The compliance plan may cover some or all engines at an individual facility or at several facilities or at all facilities in Tennessee that are in control of the same owner/operator.

4. The compliance plan must be submitted to the Technical Secretary by May 1, 2006.

5. The compliance plan may include credit for decreases in NOx emissions from Large NOx SIP Call Engines in Tennessee due to NOx control equipment. Credit may also be included for decreases in NOx emissions from other engines in Tennessee due to NOx control equipment not reflected in the 2007 Ozone Season Base NOx Emissions in the NOx SIP Call Engine Inventory.

6. The compliance plan must include the following items:

(i) List of engines subject to the plan, including the engine's manufacturer, model, facility location address, and facility identification number.

(ii) The projected ozone season hours of operation for each engine and supporting documentation.

(iii) A description of the NOx emissions control installed, or to be installed, on each engine and documentation to support the Projected NOx Emission Rates.

(iv) The Past and Projected NOx Emission Rates for each Affected Engine in g/bhp-hr.

(v) A numerical demonstration that the emission reductions obtained from all engines included under the plan will be equivalent to or greater than the owner/operator's Facility Seasonal NOx 2007 Tonnage Reduction, based on the difference between the Past NOx Emission Rate and the Projected NOx Emission Rate multiplied by the Projected Operating Hours for each Affected Engine, and taking into account any credit under part (3)(a)5. of this paragraph.

(vi) Provisions for monitoring, reporting and recordkeeping for each Affected Engine.

(b) The Projected NOx Emission Rate in g/bhp-hr or lb/hr for each Affected Engine must be included in a federally enforceable permit.

(4) Any owner or operator subject to the requirements of paragraph (3) shall comply with the following reporting, monitoring, and recordkeeping requirements:

(a) Monitoring requirements. Each Affected Engine subject to this rule shall comply with the following requirements.

1. Complete an initial performance test consistent with the requirements of 40 CFR part 60, Appendix A, following installation of emission controls required to achieve the emission rate limit specified in subparagraph (3)(b) of this rule.

2. Perform periodic monitoring sufficient to yield reliable data from the relevant time period that is representative of a source's compliance with the emission rate limit specified in subparagraph (3)(b) of this rule. Such periodic monitoring may include either:

(i) Performance tests consistent with the requirements of 40 CFR part 60, Appendix A, or portable monitors using ASTM D6522-00;

(ii) A parametric monitoring program that specifies operating parameters, and their ranges, that will provide reasonable assurance that each engine's emissions are consistent with the requirements of paragraph (3) of this rule;

(iii) A predictive emissions measurement system that relies on automated data collection from instruments; or

(Rule 1200-03-27-.09, continued)

(iv) A continuous emission monitoring system that complies with 40 CFR parts 60 or 75.

(b) Recordkeeping requirements.

1. Maintain all records necessary to demonstrate compliance with the requirements of this rule for a period of 2 calendar years at the plant at which the subject engine is located. The records shall be made available to the Technical Secretary and EPA upon request.

2. For each engine subject to the requirements of this rule, the owner or operator shall maintain records of:

(i) Identification and location of each engine subject to the requirements of this rule.

(ii) Calendar date of record.

(iii) The number of hours the unit is operated during each ozone season compared to the Projected Operating Hours.

(iv) Type and quantity of fuel used.

(v) The results of all compliance tests.

(c) Reporting requirements. Any owner or operator subject to the requirements of this rule shall submit results of all compliance tests to the Technical Secretary.

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-105.* ***Administrative History:*** *Original rule filed August 31, 2005; effective November 14, 2005.*

**1200-03-27-.10 RESERVED.**

***Authority:*** *T.C.A. §§ 4-5-201, et seq.; 68-201-101, et seq.; and 68-201-105.* ***Administrative History:*** *New rule filed August 10, 2006; effective October 24, 2006. Amendments filed November 21, 2016; effective February 19, 2017.*

**1200-03-27-.11 RESERVED.**

***Authority:*** *T.C.A. §§ 4-5-201, et seq.; 68-201-101, et seq.; and 68-201-105.* ***Administrative History:*** *New rule filed August 10, 2006; effective October 24, 2006. Amendment filed July 6, 2009; effective October 4, 2009. Amendments filed November 21, 2016; effective February 19, 2017.*

**1200-03-27-.12 $NO_X$ SIP CALL REQUIREMENTS FOR STATIONARY BOILERS AND COMBUSTION TURBINES.**

(1) Definitions. The terms used in this rule shall have the meanings set forth in this paragraph as follows:

(a) “Administrator” means the Administrator of the United States Environmental Protection Agency or the Administrator’s duly authorized representative.

(b) “Affected facility” means the group of all affected units at a facility.

(Rule 1200-03-27-.12, continued)

(c) 1. "Affected unit" means any unit identified as an existing affected unit in subparagraph (n) of this paragraph and any unit that has the following characteristics:

(i) The unit's maximum design heat input is greater than 250 MMBtu/hr;

(ii) The unit combusts, or will combust during any year, fossil fuel in the following amounts:

(I) Alone or in combination with any other fuel, where fossil fuel actually combusted comprises more than 50 percent of the annual heat input on a Btu basis during any year starting in 1995 or, if a unit had no heat input starting in 1995, during the last year of operation of the unit prior to 1995; or

(II) Alone or in combination with any other fuel, where fossil fuel is projected to comprise more than 50 percent of the annual heat input on a Btu basis during any year; and

(iii) The unit:

(I) Does not serve a generator producing electricity for sale at any time; or

(II) Serves a generator producing electricity for sale at any time and qualifies under 40 CFR § 72.6(b)(4) as an unaffected unit under the Acid Rain Program.

2. Notwithstanding part 1. of this subparagraph, any unit subject to 40 CFR 97 subpart EEEEE (CSAPR $NO_X$ Ozone Season Group 2 Trading Program) shall not be an affected unit.

(d) "Allocate" or "allocation" means the determination by the Technical Secretary of the amount of allowances to be credited to an affected facility.

(e) "Allowance" (or "$NO_X$ allowance") means a limited authorization issued by the Technical Secretary to emit one ton of nitrogen oxides ("NOx") during a control period of a specified calendar year or of any calendar year thereafter.

(f) "Boiler" means an enclosed fossil- or other-fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(g) "Clean Air Act" or "CAA" means the Clean Air Act, 42 U.S.C. § 7401, et seq.

(h) "Combustion turbine" means:

1. An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

2. If the enclosed device under part 1. of this subparagraph is combined cycle, any associated duct burner, heat recovery steam generator, and steam turbine.

(i) "Commence operation" means the later of November 15, 1990, or the date the unit begins any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber.

1. For a unit that commences operation as defined in this subparagraph, and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the date of commencement of operation of the unit, which shall continue to be treated as the same unit.

2. For a unit that commences operation as defined in this subparagraph, and that is subsequently replaced by a unit at the same source (e.g., repowered), such date shall remain the replaced unit's date of commencement of operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of operation.

(j) "Compliance deadline" means, for a control period, midnight of December 1 (if it is a business day), or midnight of the first business day thereafter (if December 1 is not a business day) immediately following the control period.

(k) "Control period" or "ozone season" means the period beginning May 1 of a calendar year and ending on September 30 of the same year, inclusive.

(l) "Emissions" means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the Technical Secretary by the Responsible Official in accordance with paragraph (11) of this rule.

(m) "Excess emissions" means any ton of nitrogen oxides emitted by an affected facility during a control period that exceeds the total number of allowances allocated to an affected facility for a control period.

(n) "Existing affected unit" means the following units:

| | |
|---|---|
| Packaging Corporation of America | Unit 17 |
| Tate & Lyle, Loudon | Units 34 and 35 |
| Resolute FP US, Inc. | Units 11 and 12 |
| Eastman Chemical Company | Units 83-23 and 83-24; Units 253-25, Units 253-26, Units 253-27, Units 253-28, and Units 253-29; Units 325-30 and 325-31 |
| The Valero Refining Company - Tennessee, LLC | Unit P049 |
| TVA Cumberland | Startup Boilers A1 and A2 |

(o) "Fossil-fuel-fired" means, with regard to an affected unit, combusting any amount of fossil fuel (coal, natural gas, petroleum, or any form of solid, liquid, or gaseous fuel derived from such material) in any calendar year.

(p) "Heat input" means, with regard to a specified period of time, the product of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/MMBtu and multiplied by the fuel feed rate into a combustion device (in pounds of fuel per unit of time), as measured and recorded in accordance with paragraph (11) of this rule. Heat input does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(q) "Maximum design heat input" means the maximum amount of fuel per hour (in MMBtu/hr) that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

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(r) "Most stringent state or federal $NO_X$ emissions limitation" means, with regard to a unit, the lowest $NO_X$ emissions limitation (in terms of lb/MMBtu) that is applicable to the unit under state or federal law, regardless of the averaging period to which the emissions limitation applies.

(s) "New affected unit" means any affected unit that is not an existing affected unit.

(t) "Operator" means any person who operates, controls, or supervises an affected unit or an affected facility and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

(u) "Owner" means any of the following persons:

1. Any holder of any portion of the legal or equitable title in an affected facility or an affected unit; or

2. Any holder of a leasehold interest in an affected facility or an affected unit.

(v) "Receive" or "receipt of" means, when referring to the Technical Secretary or the Administrator, to come into possession of a document, information, or correspondence (whether sent in hard copy or by authorized electronic transmission), as indicated in an official log, or by a notation made on the document, information, or correspondence, by the Technical Secretary or the Administrator in the regular course of business.

(w) "Replacement", "replace", or "replaced" means, with regard to a unit, the demolishing of a unit, or the permanent shutdown and permanent disabling of a unit, and the construction of another unit (the replacement unit) to be used instead of the demolished or shutdown unit (the replaced unit).

(x) "Responsible Official" has the same meaning as defined by Rule 1200-03-09-.02(11); however, a designated representative as defined by 40 CFR part 72, relative to actions, standards, requirements, or prohibitions under Title IV of the Clean Air Act or the regulations promulgated thereunder, including 40 CFR part 75, may also serve as the Responsible Official for any purposes under this rule.

(y) "Source" means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control of the same person or persons. For purposes of section 502(c) of the Clean Air Act, a "source," including a "source" with multiple units, shall be considered a single "facility."

(z) 1. "Submit" or "serve" means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable rule:

(i) In person;

(ii) By United States Postal Service; or

(iii) By other means of dispatch or transmission and delivery.

2. Compliance with any "submission" or "service" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

(aa) "Technical Secretary" means the Technical Secretary of the Tennessee Air Pollution Control Board or a duly authorized representative.

(Rule 1200-03-27-.12, continued)

(bb) "Ton" means 2,000 pounds. For the purpose of determining compliance with the ozone season $NO_X$ emissions limitation, total tons of nitrogen oxides emissions for a control period shall be calculated as the sum of all recorded hourly emissions (or the mass equivalent of the recorded hourly emission rates) in accordance with paragraph (11) of this rule, but with any remaining fraction of a ton equal to or greater than 0.50 tons deemed to equal one ton and any remaining fraction of a ton less than 0.50 tons deemed to equal zero tons.

(cc) "Unit" means a stationary, fossil-fuel fired boiler or combustion turbine or other stationary, fossil-fuel-fired combustion device.

(2) Measurements, abbreviations, and acronyms. Measurements, abbreviations, and acronyms used in this rule are defined as follows:

Btu - British thermal unit
$CO_2$ - carbon dioxide
$H_2O$ - water
hr - hour
lb - pound
MMBtu - million Btu
$NO_X$ - nitrogen oxides
$O_2$ - oxygen
ppm - parts per million
scfh - standard cubic feet per hour
$SO_2$ - sulfur dioxide

(3) Applicability. Except as otherwise exempted by this rule, the provisions of this rule shall apply to each affected unit and each affected facility.

(4) Retired unit exemption.

(a) 1. Any affected unit that is permanently retired shall be exempt from this rule, except for the provisions of this paragraph and paragraphs (1), (2), (3), (6), subparagraphs (7)(c) through (f), and paragraphs (8) and (9) of this rule.

2. The exemption under part 1. of this subparagraph shall become effective the day on which the affected unit is permanently retired. Within 30 days of the unit's permanent retirement, the Responsible Official shall submit a report to the Technical Secretary and shall submit a copy of the statement to the Administrator. The report shall state, in a format prescribed by the Technical Secretary, that the unit was permanently retired on a specific date and that the unit will comply with the requirements of subparagraph (b) of this paragraph. The report shall include a signed statement by the Responsible Official certifying the truth, accuracy, and completeness of the information provided in the report.

(b) Special provisions.

1. An affected unit exempt under subparagraph (a) of this paragraph shall not emit any nitrogen oxides during a control period, starting on the date that the exemption takes effect.

2. For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under subparagraph (a) of this paragraph shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Technical

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Secretary or the Administrator. The owners and operators of the unit bear the burden of proof that the unit is permanently retired.

3. Owners and operators shall comply with the requirements of this rule during all periods for which the exemption is not in effect.

(c) An exempt unit shall lose its exemption on the date on which the unit resumes operation.

(d) For the purpose of applying the monitoring, recordkeeping, and reporting requirements of paragraph (11) of this rule, a unit that loses its exemption under subparagraph (a) of this paragraph shall be treated as a unit that commences operation on the first date on which the unit resumes operation.

(5) State emissions budget. The state emissions budget for allowance allocations to affected units is 5,666 tons per control period for the control period in 2017 and thereafter.

(6) Allowance allocations for affected units:

(a) For each control period in 2017 and thereafter, the Technical Secretary will allocate NOx allowances in the amounts specified in the State Implementation Plan to all existing affected units.

(b) For new affected units, the heat input (in MMBtu) used for calculating $NO_X$ allowance allocations shall be determined in accordance with 40 CFR part 75, to the extent that the unit was subject to the requirements of 40 CFR part 75 for the year, or based on the best available data reported to the Technical Secretary for the unit.

(c) For each control period in 2017 and thereafter, the Technical Secretary will allocate allowances to new affected units in accordance with the following procedures:

1. The Technical Secretary will establish a new unit set-aside for each control period. For each control period, the new unit set-aside is established as the State emission budget established in paragraph (5) of this rule minus the number of $NO_X$ allowances allocated in subparagraph (a) of this paragraph.

2. The Responsible Official of a new affected unit may request $NO_X$ allowances from the Technical Secretary starting with the later of the control period in 2017 or the first control period in which the affected unit commences operation as provided in this part.

(i) The Responsible Official may request allowances for a control period in an amount not exceeding any of the following emission rates:

(I) The allowable NOx emission rate under any applicable provision of 40 CFR part 60;

(II) The allowable $NO_X$ emission rate under any state or federal construction or operating permit; and

(III) The allowable $NO_X$ emission rate under any provision in Tennessee's State Implementation Plan.

(ii) The emission rates indicated in items (i)(I) through (III) of this part shall be converted to tons as follows:

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(I) For units with four years of heat input data, the emission rate shall be multiplied by the average of the three highest years of heat input (of the most recent four-year period) as indicated in subparagraph (b) of this paragraph divided by 2,000, and rounded to the nearest whole number as appropriate.

(II) For units with less than four years of heat input data, the emission rate shall be multiplied by the unit's maximum design heat input in MMBtu/hr, multiplied by 3,672 hours per control period, divided by 2,000, and rounded to the nearest whole number as appropriate.

3. The Technical Secretary will review each allowance allocation request and allocate $NO_X$ allowances for each control period as follows:

(i) The Technical Secretary will accept an allowance allocation request only if the request meets, or is adjusted by the Technical Secretary as necessary to meet, the requirements of part 2. of this subparagraph.

(ii) On or after February 1 before the control period, the Technical Secretary will determine the sum of $NO_X$ allowances requested under subpart (i) of this part for the control period.

(iii) If the amount of $NO_X$ allowances in the new unit set-aside for the control period is greater than or equal to the sum of $NO_X$ allowances requested, then the Technical Secretary will allocate the amount of $NO_X$ allowances requested to each new affected unit.

(iv) If the amount of $NO_X$ allowances in the new unit set-aside for the control period is less than the sum of $NO_X$ allowances requested, then the Technical Secretary will allocate to each new affected unit the amount of allowances requested, multiplied by the amount of allowances in the new unit set-aside for the control period, divided by the sum of $NO_X$ allowances requested, and rounded to the nearest whole allowance as appropriate.

(v) The Technical Secretary will notify each Responsible Official that submitted an allowance allocation request of the amount of allowances (if any) allocated for the control period to the affected unit covered by the request.

(vi) After completion of the procedures specified in subparts (i) through (v) of this part, the Technical Secretary will allocate NOx allowances remaining in the new unit set-aside to existing affected units, using the following formula and rounding to the nearest whole NOx allowance as appropriate:

Unit's share of NOx allowances = (Total NOx allowances remaining in new unit set-aside) x (Unit's NOx allowance allocation) ÷ (State trading program budget excluding new unit set-aside).

(d) Adjustment of allowance allocations for new and existing affected units. The Technical Secretary may, after appropriate notice and comment, adjust the allowance allocations for new and existing affected units as necessary to comply with applicable requirements promulgated by the Administrator or to provide additional allowances for new construction.

(7) $NO_X$ emission requirements.

(Rule 1200-03-27-.12, continued)

(a) As of the compliance deadline for a control period, the tons of total nitrogen oxides emissions for the control period from all affected units at an affected facility, as determined in accordance with paragraph (11) of this rule, shall not exceed the number of allowances allocated to the affected facility.

1. Allowances are available to an affected facility for a given control period only if the allowances were allocated to the affected facility for the same control period.

2. An affected unit shall be subject to the requirements of this paragraph for the control period starting on the later of May 1, 2017, or the deadline for meeting the unit's monitor certification requirements under paragraph (11) of this rule, and for each control period thereafter.

(b) Recordkeeping and reporting requirements.

1. The owners, operators, and Responsible Official of each affected facility and each affected unit shall comply with the recordkeeping and reporting requirements of this subparagraph.

2. The emissions measurements recorded and reported in accordance with paragraph (11) of this rule shall be used to determine compliance of each affected facility with the requirements of this paragraph.

3. Unless otherwise provided, the owners and operators of the affected facility shall maintain the following documents at the affected facility location for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Technical Secretary or the Administrator.

(i) All emissions monitoring information, in accordance with paragraph (11) of this rule, provided that to the extent that paragraph (11) of this rule provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(ii) Copies of all reports, compliance certifications, and other submissions and all records made or required under this paragraph.

(iii) Copies of any other submission used to demonstrate compliance with this paragraph.

4. Reserved.

(c) Excess emissions requirements. If an affected facility emits nitrogen oxides during any control period in excess of the number of allowances allocated to the affected facility, then:

1. The Technical Secretary may deduct allowances from the affected facility's allocation for the following control period, in an amount up to 3 times the number of tons of the facility's excess emissions;

2. The affected facility shall pay any fine, penalty, or assessment, or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and

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3. Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this rule, the Clean Air Act, and applicable state law.

(d) Liability.

1. Each affected facility and each affected unit shall meet the requirements of this rule.

2. Any provision of this rule that applies to an affected facility, an affected unit, or a Responsible Official shall also apply to the owners and operators of such affected facility or affected unit.

3. Any person who knowingly violates any requirement or prohibition of this rule shall be subject to enforcement pursuant to applicable state or federal law.

4. Any person who knowingly makes a false material statement in any record, submission, or report required by this rule shall be subject to criminal enforcement pursuant to the applicable state or federal law.

(e) Effect on other authorities. No provision of this rule shall be construed as exempting or excluding the owners and operators and the Responsible Official of an affected facility or an affected unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

(f) An allowance does not constitute a property right.

(8) Computation of time.

(a) Unless otherwise stated, any time period scheduled under this rule to begin on the occurrence of an act or event shall begin on the day the act or event occurs.

(b) Unless otherwise stated, any time period scheduled under this rule to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.

(c) Unless otherwise stated, if the final day of any time period under this rule falls on a weekend or a state or federal holiday, the time period shall be extended to the next business day.

(9) Technical Secretary’s action on submissions.

(a) The Technical Secretary may review and conduct independent audits concerning any submission under this rule and make appropriate adjustments of the information in the submissions.

(b) The Technical Secretary may deduct allowances from or transfer allowances to an affected facility based on the information in the submissions.

(10) The Technical Secretary may, at his or her sole discretion and on his or her own motion, correct any error in the allocation of any affected facility. Within 10 business days of making such correction, the Technical Secretary will notify the Responsible Official for the affected facility.

(11) Monitoring and reporting.

(a) Owners, operators, and Responsible Officials of affected units shall implement a monitoring and reporting system sufficient to attribute ozone season $NO_X$ mass emissions to each unit. The applicable monitoring, recordkeeping, and reporting requirements set out in 40 CFR Part 75 Subpart H, shall be the required monitoring method for all affected units unless and until an approved alternative monitoring method is incorporated into a federally enforceable construction or operating permit issued for the affected unit, at which time that approved monitoring method shall be the required monitoring method for the unit. $NO_X$ mass emissions measurements recorded and reported in accordance with an approved monitoring method implemented pursuant to this subparagraph shall be used to determine compliance with the $NO_X$ budgets allocated in accordance with paragraph (6) of this rule. For sources that monitor in accordance with 40 CFR Part 75 Subpart H, or a monitoring alternative for which EPA authorizes direct reporting to EPA pursuant to 40 CFR Part 75, the Responsible Official shall be authorized as provided in, and shall certify each submission and may delegate the Responsible Official's authority in accordance with, 40 CFR 72 subpart B. The approved alternative monitoring methods are:

1. 40 CFR 60 Subpart D to determine NOx emission rate in lb/MMBtu, multiplied by measured fuel consumption in MMBtu to determine NOx mass emissions;

2. 40 CFR 60 Subpart Db to determine NOx emission rate in lb/MMBtu, multiplied by measured fuel consumption in MMBtu to determine NOx mass emissions; or

3. An alternative monitoring method approved by EPA in a revision to the State Implementation Plan. Alternative methodologies must address monitoring, recordkeeping, and reporting procedures, including direct reporting of $NO_X$ emissions to the Technical Secretary for each control period.

(b) Reserved.

(c) An application submitted to the Technical Secretary for a construction or operating permit requesting to use an alternative monitoring method listed in part (a)1. or (a)2. of this paragraph shall include a description of the overall monitoring program for conducting continuous in-stack monitoring for NOx mass emissions. To be approvable, the program must address the following:

1. Specifications demonstrating that the proposed monitoring instruments will meet the requirements of 40 CFR 60, Appendix B;

2. Specifications for the proposed fuel flow meter and a discussion of how the fuel Btu content will be determined;

3. Proposed location(s) of the monitoring instruments in the effluent gas stream;

4. Proposed procedures for conducting performance specification testing of the monitoring instruments in units of the applicable standard;

5. Proposed ongoing monitoring instrument quality assurance procedures;

6. Procedures for addressing missing data; and

7. Proposed format for the reporting of data.

(d) An affected facility or affected unit monitoring in accordance with parts (a)1., (a)2., or (a)3. of this paragraph must directly report $NO_X$ emissions to the Technical Secretary

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for each control period and may not report directly to EPA under 40 CFR Part 75 unless EPA expressly authorizes such reporting when approving a source-specific SIP revision.

(e) For each control period, the approved monitoring method in effect at midnight on the first day (May 1) of a control period shall be used for the entire control period.

(f) No later than January 31 following the end of each control period, the Technical Secretary will report to the Administrator the total NOx mass emissions (in tons) from affected units subject to this rule and certify compliance with the NOx budget established by paragraph (5) of this rule and the allowances allocated to each affected unit as specified in paragraph (6) of this rule.

(g) References to the Code of Federal Regulations in this paragraph (11) are to be regulations as published in the July 1, 2021, edition of the Code of Federal Regulations.

***Authority:*** *T.C.A. §§ 4-5-201, et seq. and 68-201-101, et seq.* ***Administrative History:*** *New rule filed November 21, 2016; effective February 19, 2017. Amendments filed September 13, 2019; effective December 12, 2019. Amendments filed August 26, 2022; effective November 24, 2022.*