SECTION 2D.1400 NITROGEN OXIDES EMISSIONS

.1401 DEFINITIONS

For the purpose of this Section, the following definitions apply:

(1) "Acid rain program" means the federal program for the reduction of acid rain including 40 CFR Parts 72, 75, 76, and 77.

(2) "Actual emissions" means for Rules .1416 through .1422 of this Section, emissions of nitrogen oxides as measured and calculated according to 40 CFR Part 75, Subpart H.

(3) "Actual heat input" means for Rules .1416 through .1422 of this Section, heat input as measured and calculated according to 40 CFR Part 75, Subpart H.

(4) “Averaging set of sources” means all the stationary sources included in an emissions averaging plan according to Rule .1410 of this Section.

(5) "Averaging source" means a stationary source that is included in an emissions averaging plan in accordance to Rule .1410 of this Section.

(6) "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.

(7) "Combined cycle system" means a system consisting of one or more combustion turbines, heat recovery steam generators, and steam turbines configured to improve overall efficiency of electricity generation or steam production.

(8) "Emergency generator" means a stationary internal combustion engine used to generate electricity only during the loss of primary power at the facility that is beyond the control of the owner or operator of the facility or during maintenance when necessary to protect the environment. An emergency generator may be operated periodically to ensure that it will operate.

(9) "Emergency use internal combustion engines" means stationary internal combustion engines used to drive pumps, aerators, and other equipment only during the loss of primary power at the facility that is beyond the control of the owner or operator of the facility or during maintenance when necessary to protect the environment. An emergency use internal combustion engine may be operated periodically to ensure that it will operate.

(10) "Excess emissions" means

(a) any tonnage of nitrogen oxides emitted by a source covered under Rule .1416, .1417, or .1418 of this Section during the ozone season that exceeds allocations for that source as may be adjusted under Rule .1419 of this Section; or

(b) an emission rate that exceeds the applicable limitation or standard in Rule .1407 through .1413, or .1418 of this Section.

(11) "Fossil fuel fired" means

(a) For sources that began operation before January 1, 1996, the combination of fossil fuel, 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 1995, or, if a

source had no heat input in 1995, during the last year of operation of the unit before 1995;

(b) For sources that began operation on or after January 1, 1996 and before January 1, 1997, the combination of fossil fuel, 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 1996; or

(c) For sources that began operation on or after January 1, 1997:

(i) Where fossil fuel actually combusted either alone or in combination with any other fuel, comprises more than 50 percent of the annual heat input on a Btu basis during any year; or

(ii) Where fossil fuel combusted either alone or in combination with any other fuel, is projected to comprise more than 50 percent of the annual heat input on a Btu basis during any year, provided that the unit shall be "fossil fuel-fired" as of the date, during such year, on which the source begins combusting fossil fuel.

(12) "Lean-burn internal combustion engine" means a spark ignition internal combustion engine originally designed and manufactured to operate with an exhaust oxygen concentration greater than one percent.

(13) "NO_x" means nitrogen oxides.

(14) "Ozone season" means the period beginning May 31 through September 30 for 2004 and May 1 through September 30 for all other years.

(15) "Potential emissions" means the quantity of NO_x that would be emitted at the maximum capacity of a stationary source to emit NO_x under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit NO_x shall be treated as a part of its design if the limitation is federally enforceable. Such physical or operational limitations include air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed.

(16) “Process heater” means an enclosed device using controlled flame where the device’s primary purpose is to transfer heat to a process fluid, a process material that is not a fluid, or a heat transfer material, instead of steam, for use in a process.

(17) "Projected seasonal energy input" means the maximum design heat input per hour times 3300 hours.

(18) "Projected seasonal energy output" means the maximum design energy output per hour times 3300 hours.

(19) "Reasonable assurance" means a demonstration to the Director that a method, procedure, or technique is possible and practical for a source or facility under the expected operating conditions.

(20) "Reasonably Available Control Technology" or "RACT" means the lowest emission limitation for NO_x that a particular source can meet by the

application of control technology that is reasonably available considering technological and economic feasibility.

(21) "Reasonable effort" means the proper installation of technology designed to meet the requirements of Rules .1407, .1408, or .1409 of this Section and the utilization this technology, according to the manufacturer's recommendations or other similar guidance for not less than six months, in an effort to meet the applicable limitation for a source.

(22) "Rich-burn internal combustion engine" means a spark ignition internal combustion engine originally designed and manufactured to operate with an exhaust oxygen concentration less than or equal to one percent.

(23) "Seasonal energy input" means the total energy input of a combustion source during the year beginning May 1 through September 30.

(24) "Seasonal energy output" means the total energy output of a combustion source during the year beginning May 1 through September 30.

(25) "Shutdown" means the cessation of operation of a source or its emission control equipment.

(26) "Source" means a stationary boiler, combustion turbine, combined cycle system, reciprocating internal combustion engine, indirect-fired process heater, or a stationary article, machine, process equipment, or other contrivance, or combination thereof, from which nitrogen oxides emanate or are emitted.

(27) "Startup" means the commencement of operation of any source that has shutdown or ceased operation for a period sufficient to cause temperature, pressure, process, chemical, or pollution control device imbalance that would result in excess emissions.

(28) "Stationary internal combustion engine" means a reciprocating internal combustion engine that is not self propelled; however, it may be mounted on a vehicle for portability.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (7), (10);
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.1402 APPLICABILITY

(a) The requirements of this Section shall apply beginning May 1 through September 30.

(b) Effective November 1, 2000, Rules .1416 through .1422 of this Section apply statewide.

(c) Effective November 1, 2000 Rules .1407 through .1414 of this Section apply statewide to sources permitted after October 31, 2000. Rules .1407 through .1414 of this Section shall not apply to sources that were permitted before November 1,2000, unless they are brought under these rules by Paragraph (d) of this Section.

(d) With the exceptions stated in Paragraph (h) of this Rule, this Section shall apply to:

(1) Charlotte/Gastonia, consisting of Mecklenburg and Gaston Counties according to Paragraph (e) of this Rule;

(2) Greensboro/Winston-Salem/High Point, consisting of Davidson, Forsyth, and Guilford Counties and the part of Davie County bounded by the Yadkin River, Dutchmans Creek, North Carolina Highway 801, Fulton Creek and back to Yadkin River according to Paragraph (f) of this Rule; or

(3) Raleigh/Durham, consisting of Durham and Wake Counties and Dutchville Township in Granville County according to Paragraph (g) of this Rule.

(e) If a violation of the ambient air quality standard for ozone is measured according to 40 CFR 50.9 in Cabarrus, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, or Union County, North Carolina or York County, South Carolina, the Director shall initiate analysis to determine the control measures needed to attain and maintain the ambient air quality standard for ozone. By the following May 1, the Director shall implement the specific stationary source control measures contained in this Section that are required as part of the control strategy necessary to bring the area into compliance and to maintain compliance with the ambient air quality standard for ozone. The Director shall implement the rules in this Section identified as necessary by the analysis by notice in the North Carolina Register. The notice shall identify the rules that are to be implemented and shall identify whether the rules implemented are to apply in Gaston or Mecklenburg County or in both counties. At least one week before the scheduled publication date of the North Carolina Register containing the Director's notice implementing rules in this Section, the Director shall send written notification to all permitted facilities within the county in which the rules are being implemented that are or may be subject to the requirements of this Section informing them that they are or may be subject to the requirements of this Section. (For Mecklenburg County, "Director" means for the purpose of notifying permitted facilities in Mecklenburg County, the Director of the Mecklenburg County local air pollution control program.) Compliance shall be according to Rule .1403 of this Section.

(f) If a violation of the ambient air quality standard for ozone is measured according to 40 CFR 50.9 in Davidson, Forsyth, or Guilford County or that part of Davie County bounded by the Yadkin River, Dutchmans Creek, North Carolina Highway 801, Fulton Creek and back to Yadkin River, the Director shall initiate analysis to determine the control measures needed to attain and maintain the ambient air quality standard for ozone. By the following May 1, the Director shall implement the specific stationary source control measures contained in this Section that are required as part of the control

strategy necessary to bring the area into compliance and to maintain compliance with the ambient air quality standard for ozone. The Director shall implement the rules in this Section identified as necessary by the analysis by notice in the North Carolina Register. The notice shall identify the rules that are to be implemented and shall identify whether the rules implemented are to apply in Davidson, Forsyth, or Guilford County or that part of Davie County bounded by the Yadkin River, Dutchmans Creek, North Carolina Highway 801, Fulton Creek and back to Yadkin River or any combination thereof. At least one week before the scheduled publication date of the North Carolina Register containing the Director's notice implementing rules in this Section, the Director shall send written notification to all permitted facilities within the county in which the rules are being implemented that are or may be subject to the requirements of this Section informing them that they are or may be subject to the requirements of this Section. (For Forsyth County, "Director" means for the purpose of notifying permitted facilities in Forsyth County, the Director of the Forsyth County local air pollution control program.) Compliance shall be according to Rule .1403 of this Section.

(g) If a violation of the ambient air quality standard for ozone is measured according to 40 CFR 50.9 in Durham or Wake County or Dutchville Township in Granville County, the Director shall initiate analysis to determine the control measures needed to attain and maintain the ambient air quality standard for ozone. By the following May 1, the Director shall implement the specific stationary source control measures contained in this Section that are required as part of the control strategy necessary to bring the area into compliance and to maintain compliance with the ambient air quality standard for ozone. The Director shall implement the rules in this Section identified as necessary by the analysis by notice in the North Carolina Register. The notice shall identify the rules that are to be implemented and shall identify whether the rules implemented are to apply in Durham or Wake County or Dutchville Township in Granville County or any combination thereof. At least one week before the scheduled publication date of the North Carolina Register containing the Director's notice implementing rules in this Section, the Director shall send written notification to all permitted facilities within the county in which the rules are being implemented that are or may be subject to the requirements of this Section informing them that they are or may be subject to the requirements of this Section. Compliance shall be in according to Rule .1403 of this Section.

(h) This Section does not apply to any:

- (1) source not required to obtain an air permit under 15A NCAC 02Q .0102 or is an insignificant activity as defined at 15A NCAC 02Q .0103(19);
- (2) incinerator or thermal or catalytic oxidizer used primarily for the control of air pollution;
- (3) emergency generator;
- (4) emergency use internal combustion engine;
- (5) stationary combustion turbine constructed before January 1, 1979, that has a federally enforceable permit that restricts:
  - (i) its potential emissions of nitrogen oxides to no more than 25 tons beginning May 1 through September 30;
  - (ii) it to burning only natural gas or oil; and
  - (iii) its hours of operation as describes in 40 CFR 96.4 (b)(ii) and (iii).

(6) source that is not covered under Rule .1416, .1417, or .1418, that is permitted before November 1, 2000, and that is at a facility with a federally enforceable potential to emit nitrogen oxides of:

(A) less than 100 tons per year; and

(B) less than 560 pounds per calendar day beginning May 1 through September 30 of any year.

(1) stationary reciprocating internal combustion engine less than 2400 brake horsepower that operates no more than the following hours beginning May 1 through September 30;

(A) for diesel engines:

$$t = \frac{833{,}333}{ES}$$

(B) for gas engines:

$$t = \frac{700{,}280}{ES}$$

where *t* equals time in hours and ES equals engine size in horsepower.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (7), (10);
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.1403 COMPLIANCE SCHEDULES

(a) Applicability. This Rule applies to all sources covered by Rule .1416, .1417, or Paragraph (d) of Rule .1402 of this Section.

(b) Contingency plan schedule. The owner or operator of a source subject to this Rule because of the applicability of Paragraphs (e), (f), or (g) of Rule .1402 of this Section, shall adhere to the following increments of progress and schedules:

(1) If compliance with this Section is to be achieved through a demonstration to certify compliance without source modification:
   (A) The owner or operator shall notify the Director in writing within six months after the Director's notice in the North Carolina Register that the source is in compliance with the applicable limitation or standard;
   (B) The owner or operator shall perform any required testing within 12 months after the Director's notice in the North Carolina Register to demonstrate compliance with the applicable limitation according to Rule .1415 of this Section; and
   (C) The owner or operator shall implement any required recordkeeping and reporting requirements within 12 months after the Director's notice in the North Carolina Register to demonstrate compliance with the applicable standard according to Rule .1404 of this Section.

(2) If compliance with this Section is to be achieved through the installation of combustion modification technology or other source modification:
   (A) The owner or operator shall submit a permit application and a compliance schedule within six months after the Director's notice in the North Carolina Register.
   (B) The compliance schedule shall contain the following increments of progress:
      (i) a date by which contracts for installation of the modification shall be awarded or orders shall be issued for purchase of component parts;
      (ii) a date by which installation of the modification shall begin;
      (iii) a date by which installation of the modification shall be completed; and
      (iv) if the source is subject to a limitation, a date by which compliance testing shall be completed.
   (C) Final compliance shall be achieved within three years after the Director's notice in the North Carolina Register unless the owner or operator of the source petitions the Director for an alternative limitation according to Rule .1412 of this Section. If such a petition is made, final compliance shall be achieved within four years after the Director's notice in the North Carolina Register.

(3) If compliance with this Section is to be achieved through the implementation of an emissions averaging plan as provided for in Rule .1410 of this Section:

(A) The owner or operator shall abide by the applicable requirements of Subparagraphs (b)(1) or (b)(2) of this Rule for certification or modification of each source to be included under the averaging plan;

(B) The owner or operator shall submit a plan to implement an emissions averaging plan according to Rule .1410 of this Section within six months after the Director's notice in the North Carolina Register.

(C) Final compliance shall be achieved within one year after the Director's notice in the North Carolina Register unless implementation of the emissions averaging plan requires the modification of one or more of the averaging sources. If modification of one or more of the averaging sources is required, final compliance shall be achieved within three years.

(4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel switching program as provided for in Rule .1411 of this Section:

(A) The owner or operator shall make all necessary modifications according to Subparagraph (b)(2) of this Rule.

(B) The owner or operator shall include a plan for complying with the requirements of Rule .1411 of this Section with the permit application required under Part (A) of this Subparagraph.

(C) Final compliance shall be achieved within three years after the Director's notice in the North Carolina Register.

(c) Increments of progress certification. The owner or operator shall certify to the Director, within five days after the deadline for each increment of progress in this Paragraph, whether the required increment of progress has been met.

(d) Schedule for utility companies. The owner or operator of a source subject to this Rule because of Rule .1416 of this Section:

(1) shall submit to the Director before October 1, 2003, a description of how the source will comply, which shall include an estimate of the number of tons of nitrogen oxides per ozone season, which may be a range, that will be obtained from the nitrogen oxide budget trading program under Rule .1419 of this Section to show compliance;

(2) shall submit to the Director a permit application, following the schedules in 15A NCAC 02Q .0312, .0313, .0525, or .0527, as applicable, to receive a permit and make the modification or construct and begin operating the control device before the final compliance dates in Rule .1416 of this Section if a permit is needed for source modifications or control device installation or modification;

(3) shall install and implement any required monitoring, recordkeeping, and reporting requirements before May 1, 2004; if a permit application is necessary to install and operate the monitor, the permit application shall be submitted by October 1, 2003; if a permit application is not submitted, the Director shall modify the source's permit by January 1, 2004, to insert the

monitoring, recordkeeping, and reporting requirements necessary to show compliance with this Section; and

(4) shall install necessary equipment or make necessary modifications to measure heat input for 2003 ozone season; if a permit application is necessary to install equipment or make modifications, the permit application shall be submitted by October 1, 2002; if a permit application is not submitted, the Director shall modify the source's permit, if necessary, by January 1, 2003, to insert the conditions necessary to require the source to measure heat input and to speciry how heat input shall be measured.

(e) Schedule for large combustion sources. The owner or operator of a source subject to this Rule because of Rules .1409(b) or .1417 of this Section:

(1) shall submit to the Director before October 1, 2003, a description of how the source will comply, which shall include an estimate of the number of tons of nitrogen oxides per ozone season, which may be a range, that will be obtained from the nitrogen oxide budget trading program under Rule .1419 of this Section to show compliance;

(2) shall submit to the Director a permit application, following the schedules in 15A NCAC 02Q .0312, .0313, .0525, or .0527, as applicable, to receive a permit and make the modification or construct and begin operating the control device before the final compliance dates in Rules .1409(b) or .1417 of this Section if a permit is needed for source modifications or control device installation or modification;

(3) shall install and implement any required monitoring, recordkeeping, and reporting requirements before May 1, 2004; if a permit application is necessary to install and operate the monitor, the permit application shall be submitted by October 1, 2003; if a permit application is not submitted, the Director shall modify the source's permit by January 1, 2004, to insert the monitoring, recordkeeping, and reporting requirements necessary to show compliance with this Section; and

(4) shall install necessary equipment or make necessary modifications to measure heat input for 2003 ozone season; if a permit application is necessary to install equipment or make modifications, the permit application shall be submitted by October 1, 2002; if a permit application is not submitted, the Director shall modify the source's permit, if necessary, by January 1, 2003, to insert the conditions necessary to require the source to measure heat input and to speciry how heat input shall be measured.

(f) New sources. The owner or operator of any new source of nitrogen oxides not permitted as of the date the Director notices in the North Carolina Register according to Paragraphs (e), (f), or (g) of Rule .1402 of this Section, shall comply with all applicable rules in this Section upon start-up of the source. The owner or operator of any new source covered under Rules .1407, .1408, .1409, or .1413of this Section shall comply with all applicable rules in this Section upon start-up of the source.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.107(a)(5), (7), (10);
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.1404 RECORDKEEPING: REPORTING: MONITORING:

(a) General requirements. The owner or operator of any source subject to the requirements of this Section shall comply with the monitoring, recordkeeping and reporting requirements in Section .0600 of this Subchapter and shall maintain all records necessary for determining compliance with all applicable limitations and standards of this Section for five years.

(b) Submittal of information to show compliance status. When requested by the Director, the owner or operator of any source subject to the requirements of this Section shall submit to the Director any information necessary to determine the compliance status of an affected source.

(c) Excess emissions reporting. The owner or operator shall report excess emissions following the procedures under Rule .0535 of this Subchapter. This Paragraph does not apply to the emission allocations in Rule .1416, .1417, or .1418 of this Section. Emissions in excess of the emission allocations in Rule .1416, .1417, or .1418 shall be included in the final annual report for the ozone season.

(d) Continuous emissions monitors.

(1) The owner or operator of:

(A) a source covered under Rule .1416, .1417, .1418 of this Section except internal combustion engines, and

(B) any source that opts into the nitrogen oxide budget trading program under Rule .1419 of this Section shall install, operate, and maintain a continuous emission monitoring system according to 40 CFR Part 75, Subpart H, with such exceptions as may be allowed under 40 CFR Part 75, Subpart H or 40 CFR Part 96.

(2) The owner or operator of a source that is subject to the requirements of this Section but not covered under Subparagraph (1) of this Paragraph and that uses a continuous emissions monitoring system to measure emissions of nitrogen oxides shall operate and maintain the continuous emission monitoring system according to 40 CFR Part 60, Appendix B, Specification 2, and Appendix F or Part 75, Subpart H. If diluent monitoring is required, 40 CFR Part 60, Appendix B, Specification 3, shall be used. If flow monitoring is required, 40 CFR Part 60, Appendix B, Specification 6, shall be used.

(3) The owner or operator of the following sources shall not be required to use continuous emission monitors unless the Director determines that a continuous emission monitor is necessary under Rule .0611 of this Subchapter to show compliance with the rules of this Section:

(A) a boiler or indirect-fired process heater covered under Rule .1407 of this Section with a maximum heat input less than or equal to 250 million Btu per hour;

(B) stationary internal combustion engines covered under Rule .1409 of this Section.

(e) Missing data.

(1) If data from continuous emission monitoring systems required to meet the requirements of 40 CFR Part 75 are not available at a time that the source

is operated, the procedures in 40 CFR Part 75 shall be used to supply the missing data.

(2) For continuous emissions monitors not covered under Subparagraph (1) of this Paragraph, data shall be available for at least 95 percent of the emission sources operating hours for the applicable averaging period, where four equally spaced readings constitute a valid hour. If data from continuous emission monitoring systems are not available for at least 95 percent of the time that the source is operated, the procedures in 40 CFR 75.33 through 75.37 shall be used to supply the missing data.

(f) Quality assurance for continuous emissions monitors.

(1) The owner or operator of a continuous emission monitor required to meet 40 CFR Part 75, Subpart H, shall follow the quality assurance and quality control requirements of 40 CFR Part 75, Subpart H.

(2) For a continuous emissions monitor not covered under Subparagraph (1) of this Paragraph, the owner or operator of the continuous emissions monitor shall follow the quality assurance and quality control requirements of 40 CFR Part 60, Appendix F, if the monitor is required to be operated annually under another rule. If the continuous emissions monitor is being operated only to satisfy the requirements of this Section, then the quality assurance and quality control requirements of 40 CFR Part 60, Appendix F, shall apply except that:

(A) A relative accuracy test audit shall be conducted after January 1 and before May 1 of each year;

(B) One of the following shall be conducted at least once between May 1 and September 30 of each year:

(i) a linearity test, according to 40 CFR Part 75, Appendix A, Section 3.2, 6.2, and 7.1;

(ii) a relative accuracy audit, according to 40 CFR Part 60, Appendix F, Section 5 and 6; or

(iii) a cylinder gas audit according to 40 CFR Part 60, Appendix F, Section 5 and 6; and

(C) A daily calibration drift test shall be conducted according to 40 CFR Part 60, Appendix F, Section 4.0.

(g) Interim reporting for large sources. The owner or operator of a source covered under Rules .1416, .1417, or .1418 of this Section shall report to the Director no later than July 30 the tons of nitrogen oxides emitted during the previous May and June. No later than October 30, the owner or operator shall report to the Director the tons of nitrogen oxides emitted during the previous ozone season. The Division of Air Quality shall make this information publicly available.

(h) Recordkeeping and reporting requirements for large sources. The owner or operator of a source covered under Rules .1416, .1417, or .1418 of this Section shall comply with the recordkeeping and reporting requirements of 40 CFR Part 96, Budget Trading Program for State Implementation Plans.

(i) Averaging time for continuous emissions monitors. When compliance with a limitation established for a source subject to the requirements of this Section is determined using a continuous emissions monitoring system, a 24-hour block average as

described under Rule .0606 of this Subchapter shall be recorded for each day beginning May 1 through September 30 unless a specific rule requires a different averaging time or procedure. Sources covered under Rules .1416, .1417, or .1418 of this Section shall comply with the averaging time requirements of 40 CFR Part 75.

(j) Heat input. Heat input shall be determined:

(1) for sources required to use a monitoring system meeting the requirements of 40 CFR Part 75, using the procedures in 40 CFR Part 75; or

(2) for sources not required to use a monitoring system meeting the requirements of 40 CFR Part 75, using:

(A) a method in 15A NCAC 02D .0501; or

(B) the best available heat input data.

(k) Source testing. When compliance with a limitation established for a source subject to the requirements of this Section is determined using source testing, the source testing shall follow the procedures of Rule .1415 of this Section. Where source testing is used to determine compliance with a limitation established according to this Section, testing shall be conducted at least annually according to Rule .1415 of this Section. This annual source testing requirement shall not apply to boilers or process heaters less than or equal to 50 million Btu per hour or to stationary reciprocating internal combustion engines permitted to operate no more than 475 hours during the ozone season after the initial source test.

(l) Alternative monitoring and reporting procedures. The owner or operator of a source covered under this Rule may request alternative monitoring or reporting procedures under Rule .0612, Alternative Monitoring and Reporting Procedures.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
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.1409 STATIONARY INTERNAL COMBUSTION ENGINES

(a) The owner or operator of a stationary internal combustion engine having a rated capacity of 650 horsepower or more that is not covered under Rule .1417 or .1418 of this Section shall not allow emissions of NO_x from the stationary internal combustion engine to exceed the following limitations:

MAXIMUM ALLOWABLE NO_X EMISSION RATES FOR
STATIONARY INTERNAL COMBUSTION ENGINES
(GRAMS PER HORSEPOWER HOUR)

Engine Type	Fuel Type	Limitation
Rich-burn	Gaseous	2.5
Lean-burn	Gaseous	2.5
Compression Ignition	Liquid	8.0

If necessary, the owner or operator shall install NOx control technology to comply with the applicable limitation set forth on this Paragraph.

(b) If this Rule becomes applicable to a stationary internal combustion engine permitted before November 1, 2000, pursuant to Rule .1402(d), then after reasonable effort as defined in Rule .1401 of this Section, the emissions from a stationary internal combustion engine are greater than the applicable limitation in Paragraph (a) of this Rule, or if the requirements of this Rule are not RACT for the particular stationary internal combustion engine, the owner or operator may petition the Director for an alternative limitation or standard according to Rule .1412 of this Section.

(c) If a stationary internal combustion engine is permitted to operate more than 475 hours during the ozone season, compliance with the limitation established for a stationary internal combustion engine under Paragraph (a) of this Rule shall be determined using annual source testing according to Rule .1415 of this Section.

(d) If a stationary internal combustion engine is permitted to operate no more than 475 hours during the ozone season, the owner or operator of the stationary internal combustion engine shall show compliance with the limitation under Paragraph (a) of this Rule with source testing during the first ozone season of operation according to Rule .1415 of this Section. Each year after that, the owner or operator of the stationary internal combustion engine shall comply with the annual tune-up requirements of Rule .1414 of this Section.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5), (7), (10);
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.1416 EMISSION ALLOCATIONS FOR UTILITY COMPANIES

(a) Before the EPA promulgation of revision after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the following limits apply:

(1) Carolina Power & Light. The total emissions from all the coal-fired boilers and combustion turbines at Carolina Power & Light Company's Asheville, Cape Fear, Lee, Mayo, Roxboro, Sutton, and Weatherspoon facilities shall not exceed:

(A) 12,019 tons per ozone season for 2004;

(B) 15,566 tons per ozone season for 2005;

(C) 14,355 tons per ozone season for 2006 and each year thereafter until revised according to Rule .1420 of this Section; and

(D) after revising the emission allocations according to Rule .1420 of this Section, the sum of the emission allocations calculated under Rule .1420 of this Section for boilers and combustion turbines at the Carolina Power & Light Company's facilities names in the Subparagraph (When a revision is made under Rule .1420 of this Section, each boiler and combustion turbine shall be given a specific emission allocations under Rule .1420 of this Section. The emission allocations of these boilers and combustion turbines shall be summed, and this sum shall be allowable emission rate for the coal-fired boilers and combustion turbines at the Carolina Power & Light Company's facilities named in this Subparagraph.)

Furthermore, the compliance for individual sources at these facilities shall be determined using the nitrogen oxide emission allocations in the following table beginning May 31 through September 30, 2004 and May 1 through September 30, 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY SOURCE	EMISSIONS	EMISSIONS	EMISSIONS

		LOCATIONS (tons/season) 2004	NS (tons/season) 2005	NS (tons/season) 2006 and later
Asheville, Buncombe Co.	1	~~5~~ ~~5~~ ~~1~~	714	659
	2	538	697	643
Ca	5	28	371	342

peFearChathamCo		6		
	6	406	526	485
LeeWayneCo	1	145	188	173
	2	159	206	190
	3	465	603	556
MayoPersonCo	1	1987	2572	2373

RoxboroPersonCo	1	861	1115	1028
	2	1602	2075	1914
	3	1773	2295	2116
	4	1698	2199	2028
LVSuttonNewHanoverC	1	182	236	217

o .				
	2	1 9 8	256	236
	3	8 0 6	104 4	962
W e a t h e r s p o o n R o b e s o n C o .	1	8 5	110	102
	2	9 7	125	116
	3	1 8 0	234	215

(2) Duke Power. The total emissions from all the coal-fired boilers and combustion at Duke Power Company's Allen, Belews Creek, Buck, Cliffside, Dan River, Marshall, and Riverbend facilities shall not exceed:

(A) 17,816 tons per ozone season for 2004;

(B) 23,072 tons per ozone season for 2005;

(B) 21,278 tons per ozone season for .2006 and each year thereafter until revised according to Rule .1420 of this Section; and

(C) after revising the emission allocations according to Rule .1420 of this Section, the sum of the emission allocations calculated under Rule .1420 of this Section for boilers and combustion turbines at the Duke Power Company's facilities named in the Subparagraph (When a revision is made under Rule .1420 of this Section, each boiler and combustion turbines shall be given a specific emission allocation under Rule .1420 of this Section. The emission allocations of these boilers and combustion turbines shall be summed, and this sum shall be the allowable emission rate for the coal-fired boilers and combustion turbines at the Duke Power Company's facilities named in this Subparagraph.).

Furthermore, the compliance for individual sources at these facilities shall be determined using the nitrogen oxide emission allocations in the following table beginning May 31 through September 30, 2004 and May 1 through September 30, 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	EMISSION ALLOCATIONS (tons/season) 2004	EMISSION ALLOCATIONS (tons/season) 2005	EMISSION ALLOCATIONS (tons/season) 2006 and later
GGAllenGa	1	350	453	418

stonCo.				
	2	355	460	424
	3	590	764	705
	4	528	683	630
	5	~~678~~	748	690
BelewsCreekStokesCo.	1	2591	3356	3095
	2	3020	3911	3608
BuckRowanCo.	5	66	86	79
	6	73	95	87

	7	78	101	93
	8	319	413	381
	9	337	437	403
Cliffside Cleveland and Rutherford Co.	1	76	98	91
	2	82	106	98
	3	107	138	128
	4	120	156	144
	5	1326	1717	1584
Dan R	1	132	171	157

iverRockinghamCo.				
	2	144	186	172
	3	304	394	363
MarshallCatawbaCo.	1	1011	1309	1207
	2	1056	1367	1261
	3	1784	2311	2131
	4	1764	2285	2107
Riv	10	299	387	357

erbendGastonCo.				
	7	216	280	258
	8	225	291	268
	9	285	369	340

(b) After the EPA promulgates revision after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the following limits apply:

(1) Carolina Power & Light. The total emissions from all the coal-fired boilers and combustion turbines at Carolina Power & Light Company's Asheville, Cape Fear, Lee, Mayo, Roxboro, Sutton, and Weatherspoon facilities shall not exceed:

(A) 12,019 tons per ozone season in 2004;

(B) 15,024 tons per ozone season for 2005;

(A) 11,320 tons per ozone season for 2006 and each year thereafter until revised according to Rule .1420 of this Section; and

(B) after revising the emission allocations according to Rule .1420 of this Section, the sum of the emission allocation of the sources named in this Rule calculated under Rule .1420 of this Section for boilers and combustion turbines at the Carolina Power & Light Company's facilities named in the Subparagraph. (When a revision is made under Rule .1420 of this Section, each boiler and combustion turbine shall be given a specific emission allocation under Rule .1420 of this Section. The emission allocations of these boilers shall be summed, and this sum shall be the allowable emission

rate for the coal-fired boilers and combustion turbines at the Carolina Power & Light Company's facilities named in this Subparagraph).

Furthermore, the compliance for individual sources at these facilities shall be determined using the nitrogen oxide emission allocations in the following table beginning May 31 through September 30 for 2004 and May 1 through September 30 for 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	EMISSION ALLOCATIONS (tons/season) 2004	EMISSION ALLOCATIONS (tons/season) 2005	EMISSION ALLOCATIONS (tons/season) 2006 and later
Asheville Buncombe Co	1	551	689	519
	2	538	672	507
Cape Fear Chatham Co	5	286	358	270
	6	406	508	382
Lee Way	1	145	182	137

ne Co.				
	2	159	199	150
	3	465	582	438
May o Person Co	1	1987	2483	1872
Roxb oro Person Co	1	861	1076	811
	2	1602	2003	1509
	3	1773	2215	1669
	4	1698	2122	1599
L V Sutto n New Hano ver Co.	1	182	228	171
	2	198	247	186
	3	806	1007	759
W eat her sp oo n Ro be	1	85	107	80

so n Co .				
	2	97	121	91
	3	180	225	170

(2) Duke Power. The total emissions from all the coal-fired boilers and combustion turbines at Duke Power Company's Allen, Belews Creek, Buck, Cliffside, Dan River, Marshall, and Riverbend facilities shall not exceed:

(C) 17,816 tons per season;

(D) 22,270 tons per season for 2005;

(E) 16,780 tons per ozone season for 2006 and each year thereafter until revised according to Rule .1420 of this Section; and

(F) after revising the emission allocations according to Rule .1420 of this Section, the sum of the emission allocation calculated under Rule .1420 of this Section for boilers and combustion turbines at the Duke Power Company's facilities named in the Subparagraph. (When a revision is made under Rule .1420 of this Section, each boiler and combustion turbine shall be given a specific emission allocation under Rule .1420 of this Section. The emission allocation of these boilers and combustion turbines shall be summed, and this sum shall be the allowable emission rate for the coal-fired boilers and combustion turbines at the Duke Power Company's facilities named in this Subparagraph.)

Furthermore, the compliance for individual sources for individual sources at these facilities shall be determined using the nitrogen oxide emission allocations in the following table beginning May 31 through September 30 for 2004 and May 1 through September 30 for 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	EMMISIONALLOCATIONS (tons/season)	EMMISIONALLOCATIONS (tons/season) 2006 and later

		2004	s/season) 2005	
G G Allen Gaston Co.	1	350	437	329
	2	355	444	334
	3	590	737	556
	4	528	660	497
	5	578	722	544
Bel ws Cre ek Sto kes Co.	1	2591	3239	2441
	2	3020	3775	2846
Buc k Row an Co.	5	66	83	63
	6	73	91	69
	7	78	97	73
	8	319	399	300
	9	337	422	318
Cli ffs ide	1	76	95	71

Cleveland and Rutherford Co.				
	2	82	102	77
	3	107	134	101
	4	120	150	113
	5	1326	1658	1249
Dan River Rockingham Co.	1	132	165	124
	2	144	180	135
	3	304	380	286
Marshall Catawba Co.	1	1011	1263	952
	2	1056	1320	994
	3	1784	2230	1680
	4	1764	220	1662

			6	
Riverbend Gaston Co.	10	299	374	282
	7	216	270	204
	8	225	281	212
	9	285	356	268

(c) Posting of emission allocation. The Director shall post the emission allocations for sources covered under this Rule on the Division's web page.
(d) Trading. Sources may comply with the requirements of this Rule using the nitrogen oxide budget trading program set out in Rule .1419 of this Section.
(e) Monitoring. The owner or operator of a source subject to this Rule shall show compliance using a continuous emission monitor that meets the requirements of 40 CFR Part 75, Subpart H, with such exceptions as allowed under 40 CFR Part 75, Subpart H or 40 CFR Part 96.
(f) Operation of control devices. All emission control devices and techniques installed to comply with this Rule shall be operated beginning May 1 through September 30 in the manner in which they are designed and permitted to be operated.
(g) Violations. If, at the end of the ozone season, the owner or operator of a source whose actual emissions of nitrogen oxides exceed the emission allocation in Paragraph (a) or (b) of this Rule cannot obtain enough credit under Rule .1419 of this Section of offset these excess emissions, then that source shall be considered in violation for each day that the aggregate emissions of nitrogen oxides exceeded the emission allocations in Paragraph (a) or (b) of this Rule beginning May 1 (May 31 for 2004)) through September 30 of that ozone season. (If the owner or operator of the source has traded away or otherwise transferred emission allocations of that source, then the emission allocations traded or otherwise transferred shall be subtracted from the source's emission allocations under this Rule before determining compliance.)
(h) Modification and reconstruction. The modification or reconstruction of a source covered under this Rule shall not make that source a "new" source under this Rule. A source that is modified or reconstructed shall retain its emission allocations under Paragraph (a) or (b) of this Rule.
(i) Additional controls. The Environmental Management Commission may specify through rulemaking a specific emission limit lower than that

established under this Rule for a specific source if compliance with the lower emission limit is required as part of the State Implementation Plan to attain or maintain the ambient air quality standard for ozone.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (7), (10);
Temporary Adoption Eff. November 1, 2000;
Amended Eff. July 15, 2002.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Nov 18, 2001	Jun 24, 2002	67 FR 42519
1st Revision	Jul 15, 2002	Dec 27, 2002	67 FR 78987

.1417 EMISSION ALLOCATIONS FOR LARGE COMBUSTION SOURCES

(a) Applicability. This rule applies to the sources listed in Paragraph (b) of this Rule or to the following types of sources that are permitted before November 1, 2000, and are not covered under Rule .1416 of this Section:

(1) fossil fuel-fired stationary boilers, combustion turbines, or combined cycle systems serving a generator with a nameplate capacity greater than 25 megawatts electrical and selling any amount of electricity; or

(2) fossil fuel-fired stationary boilers, combustion turbines, or combined cycle systems having a maximum design heat input greater than 250 million Btu per hour that are not covered under Subparagraph (1) of this Paragraph.

(b) Initial emission allocations.

(1) Before the EPA promulgation of revisions after November 1, 2000, to 40 CFR Part 51, Subpart g, revising the nitrogen oxide budget for North Carolina, the following limits apply:

(A) Except as allowed under Paragraph (d) of this Rule, sources named in the table in this Subparagraph shall not exceed the nitrogen oxide (NO_x) emission allocations in the table beginning May 31 through September 30, 2004 and May 1 through September 30 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	EMISSION ALLOCATIONS (tons/season) 2004	EMISSION ALLOCATIONS (tons/season) 2005	EMISSION ALLOCATIONS (tons/season) 2006 and later
Butler Warner Generating, Cumberland Co.		27	33	49
		27	33	49
		27	33	49
		28	35	52
		27	33	49
		27	33	49
		69	86	126
Cogentrix-Rocky Mount, Edgecombe Co.	Boiler	319	398	351
Cogentrix-Elizabethtown, Bladen Co.	Coal boiler	115	143	126

Cogentrix-Kenansville, Duplin Co.	Stoker boiler	103	128	113
Cogentrix-Lumberton, Robeson Co.	Coal boiler	114	142	125
Cogentrix-Roxboro, Person Co.		175	218	192
Cogentrix-Southport, Brunswick Co.		356	443	391
Duke Power, Lincoln	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23

(A) Except as allowed under Paragraph (d) of this Rule, sources named in the table in this Subparagraph shall not exceed the nitrogen oxide (NOx) emission allocations in the table beginning May 31 through September 30, 2004 and May 1 through September 30, 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	EMISSION ALLOCATIONS (tons/season) 2004	EMISSION ALLOCATIONS (tons/season) 2005	EMISSION ALLOCATIONS (tons/season) 2006 and later
Butler Warner Generating Cumberland Co.		27	33	49
		27	33	49
		27	33	49
		28	35	52
		27	33	49
		27	33	49
		69	86	126
Cogentrix-Rocky Mount, Edgecomb Co.	Boiler	319	398	351
Cogentix-Elizabethtown, Bladen Co.	Coal boiler	115	143	126
Cogentix- Kenansville, Duplin Co.	Stoker boiler	103	128	113
Cogentrix- Lumberton, Robeson, Co.	Coal boiler	114	142	125
Cogentix- Roxboro, Person Co.		175	218	192
Cogentirx- Southport,		356	443	391

Brunswick, Co.				
Duke Power, Lincoln	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	18	23	23
	Combustion Turbine	19	24	24
Panda- Rosemary Halifax Co.		35	43	32
		25	31	23
Roanoke Valley, Halifax Co.		447	557	492
		142	178	167
R J Reynolds Tobbaccoville Facility Forsyth Co.	Boiler 1	194	243	64
	Boiler 2	218	273	64
	Boiler 3	178	223	64

	Boiler 4	190	238	64
UNC-CH, Orange Co.	Boiler no. 5, 6, and 7	116	145	128
	Boiler no. 8	120	150	113
CP&L, Lee Plant, Wayne County	Combustion Turbine	25	31	31
	Combustion Turbine	25	31	31
	Combustion Turbine	92	115	115
	Combustion Turbine	92	115	115
Dynergy, Rockingham County	Combustion Turbine	34	42	42
	Combustion Turbine	33	42	42
	Combustion Turbine	33	42	42
	Combustion Turbine	33	41	41
	Combustion Turbine	33	41	41
CP&L, Woodleaf, Rowan County	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	21	27	27
	Combustion Turbine	22	27	27
CO&L, Mark's Creek, Richmond County	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	21	27	27
	Combustion Turbine	21	27	27

	Combustion Turbine	22	27	27
CP&L, Asheville, Buncombe County	Combustion Turbine	60	75	75
	Combustion Turbine	60	75	75

(B) Except as allowed under Paragraph (d) of this Rule, sources named in the tables in this Subparagraph shall not exceed the nitrogen oxide (NO_x) emission allocations in the table beginning May 31 through September 30 for 2004 and May 1 through September 30 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	NOx EMISSION ALLOCATIONS (tons/season) 2004	NOx EMISSION ALLOCATIONS (tons/season) 2005	NOx EMISSION ALLOCATIONS (tons/season) 2006 and later
Weyerhaeuser Paper Co., Martin Co.	Riley boiler	566	709	379
	Package boiler	20	25	25
	Pulverized coal dry bottom boiler	212	265	141
	Pulverized coal dry bottom boiler	187	234	125
	Pulverized coal dry bottom boiler	358	447	239
	Pulverized coal, wet bottom boiler	365	456	244
International Paper Corp., Halifax Co.	Wood/bark-fired boiler no.6 oil-fired boiler-pulverized coal dry	518	648	346

	bottom boiler			
Weyerhaeuser Co. New Bern Mill, Craven Co.	#1 power boiler	181	226	121
	#2 power boiler	58	72	72
International Paper, Columbus Co.	No. 3 Power Boiler	126	158	84
	No. 4 Power Boiler	334	418	223
Fieldcrest- Cannon, Plant 1 Cabarrus Co.		174	217	116
Transcontinental Gas Pipeline Station 160, Rockingham Co.	Mainline engine #11	102	25	25
	Mainline engine #12	102	25	25
	Mainline engine #13	122	30	30
	Mainline engine #14	123	31	31
	Mainline engine #15	148	37	37
Transcontinental Gas Pipeline Station 150, Iredell Co.	Mainline engine #12	53	13	13
	Mainline engine #13	54	13	13
	Mainline engine #14	102	25	25
	Mainline engine #15	102	25	25
Transcontinental Gas Pipeline Station 155, Davidson Co,	Mainline engine #2	102	25	25
	Mainline engine #3	87	22	22
	Mainline engine #4	148	37	37
	Mainline engine #5	56	21	21
	Mainline engine # 6	86	21	21

	Mainline engine #6	86	21	21

(2) After the EPA promulgates revisions after November 1, 2000 to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the following limits apply:

(A) Except as allowed under Paragraph (d) of this Rule, sources named in the tables in this Subparagraph shall not exceed the nitrogen oxide (NO_x) emission allocations in the table beginning May 31 through September 30 for 2004 and May 1 through September 30 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	NOx EMISSION ALLOCATIONS (tons/season) 2004	NOx EMISSION ALLOCATIONS (tons/season) 2005	NOx EMISSION ALLOCATIONS (tons/season) 2006 and later
Butler Warner Generating, Cumberland Co.		27	33	49
		27	33	49
		27	33	49
		28	35	52
		27	33	49
		27	33	49
		69	86	126
Cogentrix-Rocky Mount, Edgecombe Co.	Boiler	319	398	351
Cogentrix-Elizabethtown, Bladen	Coal boiler	115	143	126
Cogentrix-Kenansville, Duplin Co.	Stoker boiler	103	128	113
Cogentrix-Lumberton, Robeson Co.	Coal boiler	114	142	125
Coegentrix-Roxboro, Person Co.		175	218	192
Cogentrix-Southport,		356	444	392

Brunswick Co.				
Duke Power, Lincoln	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	18	23	26
	Combustion Turbine	19	24	27
Panda-Rosemary, Halifax Co.		35	43	32
		25	31	23
Roanike Valley, Halifax Co.		447	558	493
		142	178	167
RJ Reynolds Tobbacoville Facility, Forsyth Co.	Boiler 1	194	243	64

	Boiler 2	218	273	64
	Boiler 3	178	223	64
	Boiler 4	190	238	64
UNC-CH Orange Co.	Boiler no. 5, 6, and 7	116	145	128
	Boiler no.	120	150	113
CP&L, Lee Plant, Wayne County	Combustion Turbine	25	31	31
	Combustion Turbine	25	31	31
	Combustion Turbine	92	115	115
	Combustion Turbine	92	115	115
Dynergy, Rockingham County	Combustion Turbine	34	42	42
	Combustion Turbine	33	42	42
	Combustion Turbine	33	42	42
	Combustion Turbine	33	42	42
	Combustion Turbine	33	42	42
Cp&l Woodleaf, Rowan County	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	21	27	27
	Combustion Turbine	22	28	28
CP&L, Mark's Creek, Richmond County	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27
	Combustion Turbine	22	27	27

	Combustion Turbine	22	27	27
	Combustion Turbine	21	27	27
	Combustion Turbine	21	27	27
	Combustion Turbine	22	28	28
CP&L, Asheville, Buncombe County	Combustion Turbine	60	75	75
	Combustion Turbine	60	75	75

(B) Except as allowed under Paragraph (d) of this Rule, sources named in the tables in this Subparagraph shall not exceed the nitrogen oxide (NO_x) emission allocations in the table beginning May 31 through September 30 for 2004 and May 1 through September 30 2005 and each year thereafter until revised according to Rule .1420 of this Section:

FACILITY	SOURCE	NOx EMISSION ALLOCATIONS (tons/season) 2004	NOx EMISSION ALLOCATIONS (tons/season) 2005	NOx EMISSION ALLOCATIONS (tons/season) 2006 and later
Weyerhaeuser Paper Company, Martin Co.	Riley boiler	566	708	379
	Package boiler	20	25	25
Blue Ridge Paper Products, Haywood Co.	Pulverized coal dry bottom boiler	212	265	141
	Pulverized coal dry bottom boiler	187	234	125
	Pulverized coal dry bottom boiler	358	447	239
	Pulverized coal, wet	365	456	244

	bottom boiler			
	Boiler	135	169	90
International Paper Corp., Halifax Co.	Wood/bark-fired no. 6 oil-fired boiler-pulverized coal dry bottom boiler	518	648	346
Weyerhaeuser Co. New Bern Mill, Craven Co.	#1 power boiler	181	226	121
	#2 power boiler	58	72	72
International. Paper, Columbus Co.	No. 3 Power Boiler	126	158	84
	No. 4 Power Boiler	334	418	223
Fieldcrest-Cannon, Plant 1, Cabarrus Co.		174	217	116
	Mainline engine #11	102	62	25
	Mainline engine #12	102	62	25
	Mainline engine #13	122	75	30
	Mainline engine #14	123	76	31
	Mainline engine #15	148	92	38
Transcontinental Gas Pipeline Station. 150, Iredell Co.	Mainline engine #12	53	32	13
	Mainline engine #13	54	33	13
	Mainline engine #14	102	62	25
	Mainline engine #15	102	62	25

Transcontinental Gas Pipeline Station. 155, Davidson Co.	Mainline engine #2	102	62	25
	Mainline engine #3	87	54	22
	Mainline engine #4	148	92	38
	Mainline engine #5	86	53	21
	Mainline engine #6	86	53	21

(3) Any source covered under this Rule but not listed in Subparagraph (b)(1) or (2) of this Paragraph shall have a nitrogen oxide emission allocation of zero tons per season beginning May 31 through September 30 for 2004 and May 1 through September 30 for 2005 (the ozone season) and each year thereafter until revised according to Rule .1420 of this Section.

(c) Posting of emission allocations. The Director shall post the emission allocations for sources covered under this Rule on the Division's web page.

(d) Trading. Sources may comply with the requirements of this Rule using the nitrogen oxide budget trading program set out in Rule .1419 of this Section. Sources covered under this Rule and Rule .1418 of this Section shall be considered in compliance with their respective emission allocations if the sum of the actual emissions of nitrogen oxides from the sources at the facility covered under this Rule and Rule .1418 of Section is less than the sum of the emission allocations of the sources at the facility covered under this Rule and Rule .1418 of this Section. (If the owner or operator of the source has traded away or otherwise transferred emission allocations for that source, then the emission allocations traded or otherwise transferred shall be subtracted from the source's emission allocations under this Rule before determining compliance.)

(e) Monitoring. The owner or operator of a source subject to this Rule except internal combustion engines, shall show compliance using a continuous emission monitor that meets the requirements of 40 CFR Part 75, Subpart H, with such exceptions as allowed under 40 CFR Part 75, Subpart H or 40 CFR Part 96. The owner or operator of internal combustion engines covered under this Rule shall show compliance using the monitoring procedures in Rule .1423 of this Section. Beginning with the 2003 ozone season, the heat input of a source covered under this Rule shall be determined according to 40 CFR Part 75, Subpart H.

(f) Operation of control devices. All emission control devices and techniques installed to comply with this Rule shall be operated beginning May 1 through September 30 in the manner in which they are designed and permitted to be operated.

(g) Violations. If at the end of the ozone season, the owner or operator of a source whose actual emissions of nitrogen oxides exceed the emission allocation in Paragraph (b) of this Rule cannot obtain enough credits under Rule .1419 of this Section to offset these excess emissions, then that source shall be considered in violation for each day that the aggregate emissions of nitrogen oxides exceeded the emission allocation under Paragraph

(b) of this Rule beginning May 1 (May 31for 2004) through September 30 of that ozone season. (If the owner or operator of the source has traded away or otherwise transferred emission allocations for that source, then the emission allocations traded or otherwise transferred shall be subtracted from the source's emission allocations under this Rule before determining compliance.)

(h) Modification and reconstruction, replacement, or change of ownership. The modification or reconstruction of a source covered under this Rule shall not make that source a "new" source under this Rule. A source that is modified or reconstructed shall retain its emission allocation under Paragraph (b) of this Rule. If one or more sources covered under this Rule is replaced, the new source shall receive the allocation of the source, or sources, that it replaced instead of an allocation under Rule .1421 of this Section. If the owner of a source changes, the emission allocations under this Rule and revised emission allocations made under Rule .1420 of this Section shall remain with the source.

(i) Additional controls. The Environmental Management Commission may specify through rulemaking a specific emission limit lower than that established under this Rule for a specific source if compliance with the lower emission limit is required as part of the State Implementation Plan to attain or maintain the ambient air quality standard for ozone.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (7), (10);
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.1418 NEW ELECTRIC GENERATING UNITS, LARGE BOILERS, AND LARGE I/C ENGINES

(a) Electric generating units. Emissions of nitrogen oxides from any fossil fuel-fired stationary boiler, combustion turbine, or combined cycle system permitted after October 31, 2000, serving a generator with a nameplate capacity greater than 25 megawatts electrical and selling any amount of electricity shall not exceed:

(1) 0.15 pounds per million Btu if it is not covered under Rule .0530 (prevention of significant deterioration) or .0531 (nonattainment area major new source review) of this Subchapter;

(2) 0.15 pounds per million Btu or best available control technology requirements of Rule .0530 of this Subchapter, whichever requires the greater degree of reduction, if it is covered under Rule .0530 of this Subchapter; or

(3) lowest available emission rate technology requirements of Rule .0531 of this Subchapter if it is covered under Rule .0531 of this Subchapter.

(b) Large boilers. Emissions of nitrogen oxides from any fossil fuel-fired stationary boiler, combustion turbine, or combined cycle system having a maximum design heat input greater than 250 million Btu per hour which is permitted after October 31, 2000, and not covered under Paragraph (a) of this Rule, shall not exceed:

(1) 0.17 pounds per million Btu if it is not covered under Rule .0530 (prevention of significant deterioration) or .0531 (nonattainment area major new source review) of this Subchapter;

(2) 0.17 pounds per million Btu or best available control technology requirements of Rule .0530 of this Subchapter, whichever requires the greater degree of reduction, if it is covered under Rule .0530 of this Subchapter; or

(3) lowest available emission rate technology requirements of Rule .0531 of this Subchapter if it is covered under Rule .0531 of this Subchapter.

(c) Internal combustion engines. The following reciprocating internal combustion engines permitted after October 31, 2000, shall comply with the applicable requirements in Rule .1423 of this Section if the engine is not covered under Rule .0530 (prevention of significant deterioration) or .0531 (nonattainment area major source review) of this Subchapter:

(1) rich burn stationary internal combustion engines rated at equal to or greater than 2,400 brake horsepower,

(2) lean burn stationary internal combustion engines rated at equal to or greater than 2,400 brake horsepower,

(3) diesel stationary internal combustion engines rated at equal to or greater than 3,000 brake horsepower, or

(4) dual fuel stationary internal combustion engines rated at equal or to greater than 4,400 brake horsepower,

If the engine is covered under Rule .0530 of this Subchapter, it shall comply with the requirements of Rule .1423 of this Section or the best available control technology requirements of Rule .0530 of this Subchapter, whichever requires the greater degree of reduction. If the engine is covered under Rule .0531 of this Subchapter, it shall comply

with lowest available emission rate technology requirements of Rule .0531 of this Subchapter.
(d) Monitoring. The owner or operator of a source subject to this Rule except internal combustion engines shall show compliance using a continuous emission monitor that meets the requirements of Rule .1404(d) of 40 CFR Part 75, Subpart H, with such exceptions as allowed under 40 CFR Part 75, Subpart H or 40 CFR Part 96. Internal combustion engines shall comply with the monitoring requirements in Rule .1423 of this Section. Monitors shall be installed before the first ozone season in which the source will operate and shall be operated each day during the ozone season that the source operates. Sources covered under this Rule, except internal combustion engines, that begin operating before September 30, 2003, shall be determined heat input for the 2003 ozone season according to 40 CFR Part 75, Subpart H.
(e) Offsets. If emission allocations are not granted under Rule .1421 of this Section or are insufficient to offset the emissions of the source, the owner or operator of the source shall acquire emission allocations of nitrogen oxides under Rule .1419 of this Section from other sources sufficient to offset its emissions. Sources may comply with the requirements of this Rule using the nitrogen oxide budget trading program set out in Rule .1419 of this Section. The owner or operator of internal combustion engines covered under Paragraph (c) of this Rule shall not be required to obtain emission allocations or emission reductions.

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.1419 NITROGEN OXIDE BUDGET TRADING PROGRAM

(a) Definitions. For the purposes of this Rule, the definitions in 40 CFR 96.2 shall apply except that:

(1) "Permitting agency" means the North Carolina Division of Air Quality.

(2) "Fossil fuel fired" means fossil fuel fired as defined under Rule .1401 of this Section.

(b) Existing sources. Sources covered under Rule .1416 or .1417 of this Section may comply with the requirements of Rule .1416 or .1417 of this Section using the procedures of and complying with the requirements of 40 CFR Part 96, Budget Trading Program for State Implementation Plans, with the following exceptions:

(1) Permit applications shall be submitted following the procedures and schedules in this Section and in Subchapter 2Q of this Title instead of the procedures and schedules in 40 CFR Part 96; and

(2) The dates and schedules for monitoring systems in 40 CFR Part 96 shall not apply; however, if a source operates during the ozone season, it shall have installed and begun operating by May 1, 2004, a continuous emissions monitoring system that complies with 40 CFR Part 96. Sources covered under this Rule, except internal combustion engines, that begin operating before September 30, 2003, shall be determined heat input for the 2003 ozone season according to 40 CFR Part 75, Subpart H.

(c) New sources. Facilities and sources covered under Rule .1418 of this Section may comply with the requirements of Rule .1418 of this Section using the procedures of and complying with the 40 CFR Part 96, Budget Trading Program for State Implementation Plans, with the following exceptions:

(1) Permit applications shall be submitted following the procedures and schedules in this Section and in Subchapter 2Q of this Title instead of the procedures and schedules in 40 CFR Part 96; and

(2) The dates and schedules for monitoring systems in 40 CFR Part 96 shall not apply; however, a source shall not operate during the ozone season until it has installed and is operating a continuous emissions monitoring system that complies with 40 CFR Part 96.

(d) Opt-in provisions. Sources not covered under Rule .1416, .1417, or .1418 of this Section or internal combustion engines may opt into the budget trading program of 40 CFR Part 96 by following the procedures and requirements of 40 CFR Part 96, Subpart I, including using continuous emission monitors that meet the requirements of 40 CFR Part 75, Subpart H.

(e) Divisional requirements. The Director and the Division of Air Quality shall follow the procedures of 40 CFR Part 96 in reviewing permit applications and issuing permits for NO_x Budget sources, in approving or disapproving monitoring systems for NO_x Budget sources, and in taking enforcement action against NO_x Budget sources. The Director may issue permits after May 1, 2003, for sources covered under this Section that are participating in the nitrogen oxide budget trading program under this Section. The provisions of 40 CFR Part 96 pertaining to early reduction credits shall not apply.

(f) Submitting emission allocations to the EPA. For sources covered under Rule .1416, .1417, or .1418, the Director shall submit to the Administrator of the Environmental Protection Agency NO_x emission allocations according to 40 CFR Part 96. The

Environmental Management Commission and the Director shall follow Rules .1416, .1417, and .1420 for emission allocations instead of the methodology specified in 40 CFR Part 96. The Environmental Management Commission and the Director shall follow, Rule .1421 of this Section for set-asides and new source allocations instead of the provisions of 40 CFR Part 96. The Environmental Management Commission and the Director shall follow Rule .1422 of this Section for distributing the compliance supplement pool instead of the provisions of 40 CFR Part 96.

(g) EPA to administer. The United States Environmental Protection Agency (EPA) shall administer the budget trading program of 40 CFR Part 96 on behalf of North Carolina. The Director shall provide the EPA the information necessary under 40 CFR Part 96 for the EPA to administer 40 CFR Part 96 on behalf of North Carolina.

(h) Restrictions on trading. NO_x emission allocations obtained under this Rule shall not be used to meet the emission limits for a source if compliance with that emission limit is required as part of the State Implementation Plan to attain or maintain the ambient air quality ozone standard. Sources covered under Rule .0531 (nonattainment area major new source review) of this Subchapter shall not use the nitrogen oxide budget trading program to comply with Rule .0531 of this Subchapter.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
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.1420 PERIODIC REVIEW AND REALLOCATIONS

(a) Periodic Review. In 2006 and every five years thereafter, the Environmental Management Commission shall review the emission allocations of sources covered under Rules .1416, .1417, or .1418 of this Section and decide if any revisions are needed. In making this decision the Environmental Management Commission shall consider the following:

(1) the size of the allocation pool for new source growth under Rule .1421 of this Section;
(2) the amount of emissions allocations requested under Rule .1421 of this Section;
(3) the amount of emissions allocations available through nitrogen oxide budget trading program;
(4) the impact of reallocation on existing sources;
(5) the impact of reallocations on sources covered under Rule .1421 of this Section;
(6) impact on future growth; and
(7) other relevant information on the impacts of reallocation.

(b) Procedures for making revisions. In making these revisions, the Environmental Management Commision shall decide if the revised emission allocations shall be based on energy input or energy output. Once this decision is made, the Division shall calculate the revised emission allocations of sources under this rule using the following procedure:

(1) The seasonal energy input (or energy output) for each source covered under this Rule is calculated by averaging the two highest seasonal energy inputs (or energy outputs) for the four most recent years. If the source operated only one of these four years, the seasonal energy input (or energy output) for that year is used. If the source did not operate in any of these years, its projected seasonal energy input (or energy output) is used. The seasonal energy inputs (or energy outputs) are in terms of million Btu per season. The season is beginning May 1 through September 30.
(2) Seasonal emission allocations in terms of pounds per season are calculated for each source covered under this Rule as follows:
    (A) For fossil fuel-fired stationary boilers, combustion turbines, or combined cycle systems serving a generator with a nameplate capacity greater than 25 megawatts electrical and selling any amount of electricity, the seasonal energy input (or energy output) for each source is multiplied by:
        0.15 pounds per million Btu
    (B) For fossil fuel-fired stationary boilers, combustion turbines, or combined cycle systems having a maximum design heat input greater than 250 million Btu per hour that are not covered under Part (A) of this Subparagraph, the seasonal energy input (or energy output) for each source is multiplied by:
        0.17 pounds per million Btu

(C) For covered under Rule .1417 of this Section, the seasonal energy input (or energy output) for each source is multiplied by 0.91 pounds per million Btu.

(3) The individual emission allocations calculated under Subparagraph (2) of this Paragraph are divided by 2000 pounds per ton.

(4) The individual source emission allocations calculated under Subparagraph (3) of this Paragraph are summed.

(5) Each individual source emission allocations calculated under Subparagraph (3) of this Paragraph is multiplied by:

(A) 40,814 plus 50 percent of any available credits from the inspection/maintenance program if the cumulative emission allocations calculated in Subparagraph (4) of Paragraph is greater than 40,814 until the EPA promulgation of revisions after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina; or

(B) 34,504 plus 50 percent of any available credits from the inspection/maintenance program if the cumulative emission allocations calculated in Subparagraph (4) of this Paragraph is greater than 34, 504 after the EPA promulgation of revisions after November 1, 2000 to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina.

This product is then divided by the cumulative emission allocations calculated in Subparagraph (4) of this Paragraph. This calculated emission allocation rounded to the nearest ton, is the revised emission allocation for that source.

(c) Adjustments to reallocation. If any source has been permitted for and has complied with an emission rate of 0.10 pounds per million Btu or less, it shall receive the greater of the emission allocations calculated under Paragraph (b) of this Rule and its current emission allocations. The current emission allocations retained shall be summed, and this sum shall be subtracted from the multiplier in Subparagraph (b)(5) of this Rule. Then the emission allocations shall be revised under Paragraph (d) of this Rule using this new smaller multiplier.

(d) Process for adopting revised emission allocations. The Environmental Management Commission may revise emission allocations under this Rule without going through rulemaking. The Director shall put new emission allocations in the respective air quality permits after they are approved by the Environmental Management Commission. The Director shall notify the Environmental Protection Agency of the new emission allocation.

(e) Public hearing. Before approving the emission allocations calculated under Paragraph (b) or (c) of this Rule, the Environmental Management Commission shall hold a public hearing on the determination under Paragraph (b) or (c) of this Rule. The public hearing shall allow at least 45 days for comments from the time that the notice appears in the North Carolina Register.

(f) Compliance with new limits. The new emission allocations shall become effective at the beginning of the third ozone season following the adoption of the new emission allocation by the Environmental Management Commission.

(g) Posting of emissions allocations. The Director shall post the emission allocations calculated or transferred under this Rule on the Division's web page.

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.1421 ALLOCATIONS FOR NEW GROWTH OF MAJOR POINT SOURCES

(a) Purpose. The purpose of this Rule is to establish an allocation pool from which emission allocations of nitrogen oxides may be allocated to sources permitted after October 31, 2000.

(b) Eligibility. This Rule applies only to the following types of sources covered under Rule .1418 of this Section, and permitted after October 31, 2000:

(1) fossil fuel-fired stationary boilers, combustion turbines, or combined cycle systems serving a generator with a nameplate capacity greater than 25 megawatts electrical and selling any amount of electricity; or

(2) fossil fuel-fired stationary boilers, combustion turbines, or combined cycle systems having a maximum design heat input greater than 250 million Btu per hour that are not covered under Subparagraph (1) of this Paragraph;

(c) Requesting allocation. To receive emission allocations under this Rule, the owner or operator of the source shall provide the following written documentation to the Director before January 1 of the year preceding the ozone season for which the emission allocation is sought:

(1) a description of the combustion source or sources including heat input;

(2) evidence that the source complies with the emission limit under Rule .1418 of this Section;

(3) an estimate of the actual emissions of nitrogen oxides in tons per ozone season;

(4) the expected hours of operation during the ozone season;

(5) the date on which the source is expected to begin operating if it is not already operating;

(6) the tons per ozone season of emission allocations being requested (the amount requested shall be the lesser of the estimated actual emissions under Subparagraph (3) of this Paragraph or the product of the emission limit under Rule .1418 of this Section times the maximum design heat input in millions of Btu per hour times the number of hours that the source is projected to operate (not to exceed 3672 hours) divided by 2000); and

(7) a description of the monitoring, recordkeeping, and reporting plan that will assure continued compliance.

(d) Approving requests. The Director shall approve a request for emissions allocation if he finds that:

(1) All the information and documentation required under Paragraph (c) of this Rule has been submitted;

(2) The request was received before January 1;

(3) The source is eligible for emission allocations under this Rule;

(4) The source complies with Rule .1418 of this Section;

(5) The requested emission allocations do not exceed the estimated actual emissions of nitrogen oxides;

(6) The source has or is likely to have an air quality permit before the end of the upcoming ozone season; and

(7) The source is operating or is scheduled to begin operating before the end of the upcoming ozone season.

(e) Preliminary allocations. By March 1 before each ozone season, the Director shall have calculated and posted on the Division's web page preliminary emission allocations for sources whose requests under this Rule he has approved. Preliminary emission allocations shall be determined as follows:

(1) If the emission allocations requested do not exceed the amount in the pool, each source shall have a preliminary allocation equal to its request.

(2) If the emission allocations requested exceed the amount in the pool, each source's emission allocations shall be calculated as follows:

(A) For each source, its maximum design heat input in millions of Btu per hour is multiplied by the number of hours that the source is projected to operate not to exceed 3672 hours; this product is the source's seasonal heat input.

(B) The seasonal heat inputs calculated under Part (A) of this Subparagraph are summed.

(C) For each source, its seasonal heat input calculated under Part (A) of this Subparagraph is multiplied by the tons of emission allocations in the allocation pool and divided by the sum of seasonal heat inputs calculated under Part (B) of this Subparagraph; this amount is the source's preliminary emission allocations.

The preliminary emission allocations computed under this Paragraph may be revised under Paragraph (f) of this Rule after the ozone season. The emissions allocations granted under Paragraph (f) or (g) of this Rule shall be the emission allocations granted the source to offset its emissions.

(f) Requested emission allocations foes not exceed allocation pool. When the requested emission allocations do not exceed the amount in the allocation pool, the Director shall grant emission allocations for each source for which he has approved an allocation from the allocation pool as follows:

(1) For each individual source, its allowable emission rate under Rule .1418 of this Section is multiplied by its heat input during the ozone season times its hours of operation. This product is divided by 2000.

(2) The lesser of the source's actual emissions of nitrogen oxides, the value calculated under Subparagraph (1) of this Paragraph, or the preliminary emission allocations determined under Paragraph (e)(1) of this Rule shall be the source's emission allocation from the allocation pool.

(g) Requested emission allocations exceed allocation pool. When emission allocations requested exceed the amount in the allocation pool, the Director shall grant emission allocations for each source for which he has approved an allocation from the allocation pool as follows:

(1) For each individual source, its allowable emission rate under Rule .1418 of this Section is multiplied by its heat input during the ozone season times its hours of operation. This product is divided by 2000.

(2) The lesser of the source's actual emissions of nitrogen oxides, the value calculated under Subparagraph (1) of this Paragraph, or the preliminary emission allocations determined under Paragraph (e)(2) of

this Rule shall be the source's emission allocation from the allocation pool.

(h) Issuance of final allocations. By November 1 following each ozone season, the Director shall issue final allocations and shall notify each source that receives an allocation of the amount of allocation that it has been granted. By November 1 following the ozone season, the Director shall also notify the EPA of allocations issued and to whom they have been issued and the amount issued to each source. The Director shall post the final allocations on the Division's web page.

(i) Initial allocation pool.

(1) Before the EPA promulgation of revisions after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the allocation pool shall contain the following:
- (A) in 2004, 599 tons,
- (B) in 2005, 599 tons,
- (C) in 2006, 505 tons,
- **(D)** in 2007, 1,058 tons, and
- **(E)** in 2008 and each year after that, 50 percent of any available credits from the inspection/maintenance program.

(2) After the EPA promulgates revisions after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the allocation pool shall contain the following:
- **(A)** in 2004, 122 tons,
- **(B)** in 2005, 78 tons,
- **(C)** in 2006, 1117 tons,
- **(D)** in 2007, 1670 tons, and
- **(E)** in 2008 and each year after that, 50 percent of any available credits from the inspection/maintenance program.

(j) Changes in the allocation pool. Beginning in 2008, the Director shall add to the allocation pool by March 1 of each year any available credits from the inspection/maintenance program.

(k) Carryover. Emission allocations remaining in the allocation pool at the end of the year shall be carried over into the next year for use during the next ozone season.

(l) Future requests. Once the owner or operator of a source has made a request under this Rule for emission allocations from the allocation pool, he does not have to request emission allocations under this Rule in future years. The request shall automatically be included in following years as long as the source remains eligible for emission allocations under this Rule.

(m) Loss of eligibility. Once a source receives emission allocations under Rule .1420 of this Section, it shall no longer be eligible for emission allocations under this Rule.

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.1422 COMPLIANCE SUPPLEMENT POOL AND EARLY EMISSION REDUCTION CREDITS

(a) Purpose. The purpose of this Rule is to regulate North Carolina's eligibility for and use of the Compliance Supplement Pool under 40 CFR 51.121(e)(3).

(b) Eligibility. Facilities covered under Rule .1416 of this Section may earn Compliance Supplement Pool Credits for those nitrogen oxide emissions reductions required by Rule .1416 of this Section that are achieved after September 30, 1999 and before May 1, 2003, and are beyond the total emission reductions required under 40 CFR Part 76.

(c) Credits. The Compliance Supplement Pool Credits earned under the auspices of this Rule shall be tabulated in terms of tons of nitrogen oxides reduced per ozone season. The control device, modification, or change in operational practice that will enable the combustion source or sources to achieve the emissions reductions shall be permitted. The facility shall provide the Division of Air Quality with written notification certifying the installation and operation of the control device or the modification or change in operational practice that will enable the combustion source or sources to achieve the emissions reduction. Only emission reductions that are beyond emission reductions required under 40 CFR Part 76 are credible. Compliance Supplement Pool Credits are counted in successive seasons through May 1, 2003. Seasonal credits shall be recorded in a Division of Air Quality database and will accumulate in this database until May 1, 2003. At that point a cumulative total of all the Compliance Supplement Pool Credits earned during the entire period shall be tabulated. These credits will then be available for use by the State of North Carolina to achieve compliance with the State ozone season NOx budget.

(d) Requesting credits. In order to earn Compliance Supplement Pool Credits, the owner or operator of the facility shall provide the following written documentation to the Director before January 1, 2004.

(1) the combustion source or sources involved in the emissions reduction;
(2) the start date of the emissions reduction;
(3) a description of the add-on control device, modification, or change in operational practice that will enable the combustion source or sources to achieve the emissions reduction;
(4) the current, or baseline, emissions of nitrogen oxides of the combustion source or sources involved in this reduction in terms of tons of nitrogen oxides per season;
(5) the amount of reduction of emissions of nitrogen oxides that will be achieved by this action in terms of tons of nitrogen oxides per season per combustion source involved;
(6) the total reduction of nitrogen oxides achieved by this action in tons of nitrogen oxides per season for all the combustion sources involved;
(7) a demonstration that the proposed action has reduced the emissions of nitrogen oxides from the combustion sources involved by the amount specified in Subparagraphs (d)(5) and (d)(6) of this Rule; and
(8) a description of the monitoring, recordkeeping, and reporting plan used to ensure continued compliance with the proposed emissions reduction activity; continuous emissions monitors shall be used to monitor emissions.

(e) Approving requests. Before any Compliance Supplement Pool Credits can be allocated, the Director shall have to approve them. The Director shall approve credits if he finds that:

(1) early emissions reductions are beyond the reductions required under 40 CFR Part 76, Acid Rain Nitrogen Oxides Emission Reduction Program,

(2) the emission reductions are achieved after September 30, 1999, and before May 1, 2003, and

(3) all the information and documentation required under Paragraph (d) Rule have been submitted.

(f) Supplement pool. The Director shall verify that Compliance Supplement Pool Credits do not exceed a combined total of 10,737 tons for all the ozone seasons of the years 2004 and 2005.

(g) Recording credits. The Division shall record the Compliance Supplement Pool Credits earned under the auspices of this Rule in a central database. The Division of Air Quality shall maintain this database. These credits shall be recorded in tons of emissions of nitrogen oxides reduced per season with the actual start date of the reduction activity. To be counted as emission reduction credits, the owner of operators of the source shall report by December 1 of each year the emission reductions achieved between May 1 and September 30 of that year.

(h) Use of credits. These Compliance Supplement Pool Credits shall be available for use by the Director of the Division of Air Quality to offset exceedances of the emission of nitrogen oxides in order to achieve compliance with the North Carolina ozone season NOx budget after May 1, 2004, but no later than May 1, 2006. The credits shall be used on a one for one basis, that is, one ton per season of credit can be used to offset one ton, or less, per season of excess emissions to achieve compliance with the requirements of Rule .1416 or .1417 of this Section. All credits shall expire and will no longer be available for use after May 1, 2006.

(i) Reporting. The Director shall report by December 1, 2004, the Compliance Supplement Pool Credits used beginning May 1 through September 30, 2004, and by December 1, 2005, the Compliance Supplement Pool Credits used beginning May 1 through September 30, 2005.

(j) Failure to receive sufficient credits. If the sum of Compliance Supplement Pool Credits received by Carolina Power & Light Co. and Duke Power Co. are less than 10,737, the following procedures shall be used to reduce the allocations in Rule .1416 of this Section:

(1) If the Compliance Supplement Pool Credits received by Carolina Power & Light Co. are less than 4,295 tons, but the Compliance Supplement Pool Credits received by Duke Power Co. are greater than or equal to 6,442 tons, the allocation for Carolina Power & Light Co.'s sources shall be reduced by amount obtained by subtracting from 10,737 tons the sum of Compliance Supplement Pool Credits received by Carolina Power & Light Co, and Duke Power Co. The allocations of Carolina Power & Light Co.'s sources shall be reduced using the procedure in Subparagraph (4) of this Paragraph.

(2) If the Compliance Supplement Pool Credits received by Duke Power Co. are less than 6,442 tons, but the Compliance Supplement Pool Credits received by Carolina Power & Light Co. are greater than or equal to 4,295 tons, the

allocation for Duke Power Co.'s sources shall be reduced by amount obtained by subtracting from 10,737 tons the sum of Compliance Supplement Pool Credits received by Carolina Power & Light Co and Duke Power Co. The allocations of Duke Power Co.'s sources shall be reduced using the procedures in Subparagraph (4) of this Paragraph.

(3) If the Compliance Supplement Pool Credits received by Carolina Power & Light Co. are less than 4,295 tons, and the Compliance Supplement Pool Credits received by Duke Power Co. are greater than or equal to 6,442 tons:
    (A) The allocation for Carolina Power & Light Co.'s sources shall be reduced by the amount obtained by subtracting 4,295 tons the Compliance Supplement Pool Credits received by Carolina Power & Light Co. The allocations Carolina Power & Light Co.'s sources shall be reduced using the procedure in Subparagraph (4) of this Paragraph; and
    (B) The allocation for Duke Power Co.'s sources shall be reduced by amount obtained by subtracting from 6,442 tons the Compliance Supplement Pool Credits received by Duke Power Co. The allocations of Duke Power Co.'s sources shall be reduced using the procedure in Subparagraph (4) of this Paragraph.

(4) When the allocations in Rule .1416 of this Section for Carolina Power & Light Co.'s sources are required to be reduced, the following procedures shall be used:
    (A) If the reduction required is less than or equal to 3,523 tons, then following procedures shall be used:
        (i) The allocation of sources listed in Rule .1416 of this Section for 2005 for Carolina Power & Light Co. or Duke Power are summed.
        (ii) The reduction required under Subparagraph (1), (2), or (3) of this Paragraph is subtracted from the sum computed under Subpart (i) of this Part.
        (iii) The allocation of each source listed in Rule .1416 of this Section for 2005 for Carolina Power & Light Co. or Duke Power Co. is multiplied by the value computed under Subpart (ii) of this Part and divided by the value computed under Subpart (i) of this Part. The result is the revised allocation for that source.
    (B) If the reduction required is more than 3,523 tons, then the following procedure shall be used:
        (i) The reduction for the allocations for 2005 is determined using the procedure under Part (A) of this Subparagraph and substituting 3,523 as the reduction required under Subpart (A)(ii) of this Subparagraph.
        (ii) The reduction for the allocations for 2004 shall be determined using the following procedure:
            (I) The reduction required under Subparagraph (1), (2), or (3) of this Paragraph is subtracted from 3,523.

(II) The allocations of all sources listed in Rule .1416 of this Section for 2004 for Carolina Power & Light Co. or Duke Power Co. for 2004 are summed.

(III) The allocation of each source listed in Rule .1416 of this Section for 2004 for Carolina Power & Light Co. or Duke Power Co. is multiplied by the value computed under Sub-Subpart (I) of this Subpart and divided by the value computed Sub-Subpart (II) of this Subpart. The result is the revised allocation for that source

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.1423 LARGE INTERNAL COMBUSTION ENGINES

(a) Applicability. This Rule applies to the following internal combustion engines subject to Rule .1418 of this Section and permitted after October 30, 2000:

(1) rich burn stationary internal combustion engines rated at equal or greater than 2,400 brake horsepower;

(2) lean burn stationary internal combustion engines rated at equal or greater than 2,400 brake horsepower;

(3) diesel stationary internal combustion engines rated at equal or greater than 3,000 brake horsepower; or

(4) dual fuel stationary internal combustion engines rated at equal or greater than 4,400 brake horsepower.

(b) Emission limitation. The owner or operator of a stationary internal combustion engine shall cause to be emitted into the atmosphere nitrogen oxides in excess of the following applicable limit, expressed as nitrogen dioxide corrected to 15 percent parts per million by volume (ppmv) stack gas oxygen on a dry basis, averaged over a rolling 30-day period, as may be adjusted under Paragraph (c) of this Rule:

MAXIMUM ALLOWABLE EMISSION CONCENTRATION FOR STATIONARY INTERNAL COMBUSTION ENGINES
(parts per million)

Engine Type	Limitation
Rich-burn	110
Lean-burn	125
Diesel	175
Dual fuel	125

(c) Adjustment. Each emission limit expressed in Paragraph (b) of this Rule may be multiplied by X, where X equals the engine efficiency (E) divided by a reference efficiency of 30 percent. Engine efficiency (E) shall be determined using one of the methods specified in Subparagraphs (1) or (2) of this Paragraph, whichever provides a higher value. However, engine efficiency (E) shall not be less than 30 percent. An engine with an efficiency lower than 30 percent shall be assigned an efficiency of 30 percent.

(1)

$$E = \frac{(\text{Engine output})*(100)}{\text{Energy input}}$$

where energy input is determined by a fuel measuring device accurate to plus or minus 5 percent and is based on the higher heating value (HHV) of the fuel. Percent efficiency (E) shall be averaged over 15 consecutive minutes and measured at peak load for the applicable engine.

(2)

$$E = \frac{\text{Manufacturer's Rated Efficiency [continuous] at LHV})*(\text{LHV})}{\text{HHV}}$$

where LHV is the lower heating value of the fuel; and HHV is the higher heating value of the fuel.

(d) Compliance determination and monitoring. The owner or operator of an internal combustion engine subject to the requirements of this Rule shall determine compliance using:

(1) a continuous emissions monitoring system (CEMS) which meets the applicable requirements of Appendices B and F of 40 CFR part 60, excluding data obtained during periods specified in Paragraph (g) of this Rule; or

(2) an alternate calculated and recordkeeping procedure based on actual emissions testing and correlation with operating parameters.

To use the alternative procedures under Subparagraph (2) of this Paragraph, the owner or operator shall demonstrate to the Director that the alternative procedure can measure emissions of nitrogen oxides as accurately and precisely as the continuous emission monitoring system required under Subparagraph (1) of this Paragraph. The installation, implementation, and use of this alternate procedure shall be approved by the Director before it may be used. The Director may approve the alternative procedure if he finds that it can measure emissions of nitrogen oxides as accurately and precisely as the continuous emission monitoring system required under Subparagraph (1) of this Paragraph.

(e) Reporting requirements. The owner or operator of a stationary internal combustion engine subject to this Rule submit:

(1) a report documenting the engine's total nitrogen oxide emissions beginning May 1 and ending September 30 of each year to the Director by October 31 of each year, beginning with the year of first ozone season that the engine operates;

(2) an excess emissions and monitoring systems performance report, according to the requirements of 40 CFR 60.7(c) and 60.13, if a continuous emissions monitoring system is used.

(f) Recordkeeping requirements. The owner or operator of a stationary internal combustion engine subject to this Rule shall maintain all records necessary to demonstrate compliance with the Rule for two calendar years at the facility at which the engine is located. The records shall be made available to the Director upon request. The owner or operator shall maintain records of the following information for each day the engine operates:

(1) identification and location of the engine;

(2) calendar date of record;

(3) the number of hours the engine operated during each day, including startups, shutdowns, and malfunctions, and the type and duration of maintenance and repairs;

(4) date and results of each emissions inspection;

(5) a summary of any emissions corrective maintenance taken;

(6) the results of all compliance tests; and

(7) if a unit is equipped with a continuous emission monitoring system:

(A) identification of time periods during which nitrogen oxide standards are exceeded, the reason for the excess emissions, and

action taken to correct the excess emissions and to prevent similar future excess emissions; and

(B) 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 corrective actions taken.

(g) Exemptions. The emission standards of this Rule shall not apply to the following periods of operation:

(1) start-up and shut-down periods and periods of malfunction, not to exceed 36 consecutive hours;

(2) regularly scheduled maintenance activities.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
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