

15A NCAC 02D .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 for gaseous and solid fuels and 0.18 pounds per million Btu for liquid fuels 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 for gaseous and solid fuels and 0.18 pounds per million Btu for liquid fuels 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 for gaseous and solid fuels and 0.18 pounds per million Btu for liquid fuels 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 for gaseous and solid fuels and 0.18 pounds per million Btu for liquid fuels 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 to or 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 this Section. 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.

(e) **Offsets.** If emission allocations are not granted under Rule .1421 of this Section or are not equal to or greater than the emissions of nitrogen oxides of the source for that ozone season, until revised under Rule .1420 of this Section, 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 shall 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.

*History Note: Authority G.S. 143-215.3(a)(1);143-215.107(a)(5), (7), (10);
Temporary Adoption Eff. November 1, 2000;
Temporary Amendment Eff. August 1, 2001;
Eff. July 15, 2002;
Amended Eff. June 1, 2004.*

15A NCAC 02D .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 instead of the definition in 40 CFR 96.2.
- (b) Existing sources. Sources covered under Rule .1416 or .1417 of this Section shall 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, Nitrogen Oxide 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.
- (c) New sources. Except for internal combustion engines, sources covered under Rule .1418 of this Section shall comply with the requirements of Rule .1418 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, 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. Boilers, turbines, and combined cycle systems 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. Before an internal combustion engine opts into the budget trading program, the owner or operator of the engine shall demonstrate that the continuous emissions monitor on the engine can comply with the requirements of 40 CFR Part 75, Subpart H, by operating monitor on the engine under the conditions specified in 40 CFR Part 75 for at least one ozone season before opting into the budget trading program.
- (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. The owner or operator of each source covered under Rule .1416, .1417, or .1418, except internal combustion engines, of this Section shall establish an account, designate an authorized account representative, and comply with the other requirements of 40 CFR Part 96 as necessary for the EPA to administer the nitrogen oxide budget trading program 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: Statutory Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
Temporary Adoption Eff. November 1, 2000;
Temporary Amendment Eff. August 1, 2001;
Eff. July 15, . 2002.
Amended Eff. June 1, 2004.*

15A NCAC 02D .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) If the Environmental Management Commission decides to revise emission allocations, it shall propose for each source that has been permitted for and has complied with an emission rate of 0.10 pounds per million Btu or less, emission allocations greater than or equal to the greater of:

- (1) the source's current allocation, or
- (2) an allocation calculated by multiplying the average of the source's two highest seasonal energy inputs for the four most recent years by 0.15 pounds per million Btu and dividing by 2000.

(c) **Posting of emission allocations.** The Director shall post the new emission allocations once they are adopted on the Division's web page.

History Note: Statutory Authority G.S. 143-215.3(a)(1);143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
Temporary Adoption Eff. November 1, 2000;
Temporary Amendment Eff. August 1, 2001;
Eff. July 15, 2002.

15A NCAC 02D .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. Emissions allocations issued under this Paragraph are solely for planning purposes and are not reported to the EPA to be recorded in allowance tracking system account. The emission allocations granted under Paragraph (f) of this Rule shall be the emission allocations granted the source to offset its emissions.

(f) Final allocations. According to Paragraph (g) of this Rule, 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. 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) of this Rule shall be the source's emission allocation from the allocation pool.

Emissions allocations granted under this Paragraph are reported to the EPA to be recorded in allowance tracking system account.

(g) Issuance of final allocations. By November 1 following each ozone season, the Director shall issue final allocations according to Paragraph (f) of this Rule 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.

(h) 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, 122 tons,
 - (B) in 2005, 599 tons plus emission allocations carried over from the previous year;
 - (C) in 2006, 505 tons plus emission allocations carried over from the previous year; and
 - (D) in 2007, 1,058 tons plus emission allocations carried over from the previous year.
- (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 plus emission allocations carried over from the previous year;
 - (C) in 2006, 1117 tons plus emission allocations carried over from the previous year; and
 - (D) in 2007, 1670 tons plus emission allocations carried over from the previous year.

(i) Changes in the allocation pool. By July 1, 2006, the Commission shall begin to develop and adopt through rulemaking allocations for 2008 and later years.

(j) 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.

(k) 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.

(l) 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.

(m) Use of allocation. Allocations granted under this rule apply only to the ozone season immediately preceding the issuance of final allocations under Paragraph (g) of this Rule. Allocations issued under Paragraph (g) of this Rule for use in one year do not carry forward into any following ozone season. Allocations granted under this Rule shall be calculated for each ozone season.

History Note: Statutory Authority G.S. 143-215.3(a)(1);143-215.65; 143-215.66; 143 215.107(a)(5), (7), (10);
Temporary Adoption Eff. November 1, 2000;
Temporary Amendment Eff. August 1, 2001;
Eff. July 15, 2002.

15A NCAC 02D .1422 COMPLIANCE SUPPLEMENT POOL 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. Sources 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 during the ozone season after September 30, 1999 and are demonstrated using baseline and current emissions determined according to 40 CFR Part 75 before May 1, 2003, and are beyond the total emission reductions required under 40 CFR Part 76 or any other provision of the federal Clean Air Act.

(c) Credits. The Compliance Supplement Pool Credits earned under this Rule shall be tabulated in tons of nitrogen oxides reduced per ozone season. The control device, modification, or change in operational practice that enables 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 enables the combustion source or sources to achieve the emissions reduction. Only emission reductions that are beyond emission reductions required under 40 CFR Part 76 or any other provision of the federal Clean Air Act are creditable Compliance Supplement Pool Credits. 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, 2003.

- (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 enables the combustion source or sources to achieve the emissions reduction;

- (4) the current and 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 achieved by this action in 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 demonstrated using baseline and current emissions determined according to 40 CFR Part 75 to be beyond the reductions required under 40 CFR Part 76, Acid Rain Nitrogen Oxides Emission Reduction Program and any other requirement of the federal Clean Air Act;
 - (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) have been submitted.

The Director shall notify the owner or operator of the source and EPA of his approval or disapproval of a request and of the amount of Compliance Supplement Pool Credits approved. If the Director disapproves a request or part of a request, he shall explain in writing to the owner or operator of the source the reasons for disapproval.

(f) Compliance supplement pool. The Director shall verify that the Compliance Supplement Pool Credits do not exceed a statewide total of 10,737 tons for all the ozone seasons of the years 2003, 2004, and 2005.

(g) Interim report. The owner or operators of the facility shall submit to the Director by January 1, 2001 and January 1, 2002 an interim report that contains the information in Paragraph (d) of this Rule for the previous ozone season.

(h) Recording credits. Based on the interim reports submitted under Paragraph (g) of this Rule, the Division shall record the Compliance Supplement Pool Credits earned under 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. Based on the final formal request submitted under Paragraph (d) of this Rule as approved under Paragraph (e) of this Rule, the Director shall finalize the Compliance Supplement Pool Credits earned and record the final earned credits in the Division's database. .

(i) Use of credits. Final earned Compliance Supplement Pool Credits shall be available for Carolina Power & Light Co. and Duke Power Co. to use in 2003. The allocations of Carolina Power & Light Co.'s sources and Duke Power Co.'s sources in Rule .1416 of this Section shall be reduced for 2004 or 2005 by the amount of Compliance Supplement Pool Credits used in 2003 using the procedures in Paragraph (k) of this Rule. Compliance Supplement Pool Credits not used in 2003 shall be available for use by the Director of the Division of Air Quality to offset excess emissions of nitrogen oxides in order to achieve compliance with the North Carolina ozone season NOx budget after May 30, 2004, but no later than September 30, 2005. 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 November 30, 2005.

(j) Reporting. The Director shall report:

- (1) to the EPA, Carolina Power & Light Co. and Duke Power Co. by
 - (A) March 1, 2003 the Compliance Supplement Pool Credits earned by Carolina Power & Light Co. and by Duke Power Co., and
 - (B) March 1, 2004 the reductions in allocations calculated under Paragraphs (k) and (l) of this Rule; and
- (2) to the EPA by:
 - (A) December 1, 2003, the Compliance Supplement Pool Credits used beginning May 1 through September 30, 2003,
 - (B) December 1, 2004, the Compliance Supplement Pool Credits used beginning May 31 through September 30, 2004, and
 - (C) December 1, 2005, the Compliance Supplement Pool Credits used beginning May 1 through September 30, 2005.

(k) Using Compliance Supplement Pool Credits in 2003. Carolina Power & Light Co. and Duke Power Co. may use Compliance Supplement Pool Credits in 2003. If they do use Compliance Supplement Pool Credits in 2003, then the allocations for their sources in Rule .1416 of this Section shall be reduced for 2004 or 2005 by the amount of Compliance Supplement Pool Credits used in 2003. Before the Director approves the use of Compliance Supplement Pool Credits in 2003, the company shall identify the sources whose allocations are to be reduced to offset the Compliance Supplement Pool Credits requested for 2003 and the year (2004 or 2005) in which the allocation is reduced. The Director shall approve no more

than 4,295 tons for Carolina Power & Light Co. and no more than 6,442 tons for Duke Power Co. The Director shall approve no more than 5,771 tons being offset by reductions in allocations in 2004 and no more than 4,966 tons being offset by reductions in allocations in 2005.

(l) 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 tons, the following procedure 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, and 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 the 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, and 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 the 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 procedure 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 less than 6,442 tons:
 - (A) The allocation for Carolina Power & Light Co.'s sources shall be reduced by the amount obtained by subtracting from 4,295 tons the Compliance Supplement Pool Credits received by Carolina Power & Light Co. The allocations of 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 the 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 or for Duke Power Co.'s sources are required to be reduced, the following procedure shall be used:
- (A) If the reduction required is less than or equal to 4,966 tons, then following procedure shall be used:
- (i) The allocation of all sources listed in Rule .1416 of this Section for 2005 for Carolina Power & Light Co. or Duke Power Co. 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 4,966 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 4,966 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 4,966.
 - (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
- (m) If allocations are reduced in 2004 or 2005 for Carolina Power & Light Co. or Duke Power Co. under Paragraph (k) or (l) of this Rule, the company whose allocations are reduced shall reduce its allocations by returning allowances

through the use of allowance transfers to the State following the procedures in 40 CFR Part 96. These allowances shall be retired.

*History Note: Statutory Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
Temporary Adoption Eff. August 1, 2001;
Eff. July 15, 2002;
Amended Eff. June 1, 2004.*

15A NCAC 2D .1423 LARGE INTERNAL COMBUSTION ENGINES

(a) Applicability. This rule applies to the following internal combustion engines permitted after October 30, 2000 that are subject to Rule .1418 of this Section but are not subject to Rules .0530 (prevention of significant deterioration) or .0531 (nonattainment area major new source review) of this Subchapter:

- (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 not 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 Subparagraph (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)

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

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 and .1404 of this Section; or
- (2) an alternate calculated and recordkeeping procedure based on actual emissions testing and correlation with operating parameters. 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 show the compliance status of the engine.

(e) Reporting requirements. The owner or operator of a stationary internal combustion engine subject to this Rule shall 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;
- (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: Statutory Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
Temporary Adoption Eff. August 1, 2001;
Eff. July 15, 2002.*