

1 15A NCAC 02D .1401 is proposed for amendment as follows:  
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3 **SECTION .1400 – NITROGEN OXIDES**  
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5 **15A NCAC 02D .1401 DEFINITIONS**

6 (a) For the purpose of this Section, in addition to the definitions in G.S. 143-212, G.S. 143-213, and 15A NCAC 02D  
7 .0101, the following definitions shall apply. If a term in this Rule is also defined at 15A NCAC 02D .0101, then the  
8 definition in this Rule controls.

- 9 (1) "Acid Rain Program" means the federal program for the reduction of acid rain including 40 CFR  
10 Parts 72, 75, 76, and 77.
- 11 (2) "Actual emissions" means for 15A NCAC 02D .1418, emissions of NOx as measured and calculated  
12 pursuant to 40 CFR Part 75, Subpart H.
- 13 (3) "Actual heat input" means for 15A NCAC 02D .1418, heat input as measured and calculated  
14 pursuant to 40 CFR Part 75, Subpart H.
- 15 (4) "Averaging set of sources" means all the stationary sources included in an emissions averaging plan  
16 pursuant to 15A NCAC 02D .1410.
- 17 (5) "Averaging source" means a stationary source that is included in an emissions averaging plan  
18 pursuant to 15A NCAC 02D .1410.
- 19 (6) "Boiler" means an enclosed fossil or other fuel-fired combustion device used to produce heat and to  
20 transfer heat to recirculating water, steam, or other medium.
- 21 (7) "Combined cycle system" means a system consisting of one or more combustion turbines, heat  
22 recovery steam generators, and steam turbines configured to improve overall efficiency of electricity  
23 generation or steam production.
- 24 (8) "Combustion turbine" means an enclosed fossil or other fuel-fired device that is comprised of a  
25 compressor, a combustor, and a turbine, and in which the flue gas resulting from the combustion of  
26 fuel in the combustor passes through the turbine, rotating the turbine.
- 27 (9) "Diesel engine" means a compression ignited two- or four-stroke engine in which liquid fuel injected  
28 into the combustion chamber ignites when the air charge has been compressed to a temperature  
29 sufficiently high for auto-ignition.
- 30 (10) "Dual fuel engine" means a compression ignited stationary internal combustion engine that is  
31 burning liquid fuel and gaseous fuel simultaneously.
- 32 (11) "EGU" or electric generating unit means a stationary, fossil fuel-fired boiler or combustion turbine  
33 that serves a generator with a nameplate capacity greater than 25 MWe producing electricity for sale  
34 at any time, except a large non-EGU.
- 35 ~~(11)~~(12) "Emergency generator" means a stationary internal combustion engine used to generate electricity  
36 only during:

1 (A) the loss of primary power at the facility that is beyond the control of the owner or operator  
2 of the facility; or

3 (B) maintenance when maintenance is being performed on the power supply to equipment that  
4 is essential in protecting the environment or to such equipment itself.

5 An emergency generator may be operated periodically to ensure that it will operate.

6 ~~(12)~~(13) "Emergency use internal combustion engines" means stationary internal combustion engines used  
7 to drive pumps, aerators, and other equipment only during:

8 (A) the loss of primary power at the facility that is beyond the control of the owner or operator  
9 of the facility; or

10 (B) maintenance when maintenance is being performed on the power supply to equipment that  
11 is essential in protecting the environment or to such equipment itself.

12 An emergency use internal combustion engine may be operated periodically to ensure that it will  
13 operate.

14 ~~(13)~~(14) "Excess emissions" means an emission rate that exceeds the applicable limitation or standard; for  
15 the purposes of this definition, NOx emitted by a source regulated by 15A NCAC 02D .1418 during  
16 the ozone season above its allocation are not considered excess emissions.

17 ~~(14)~~(15) "Fossil fuel fired" means:

18 (A) For sources that began operation before January 1, 1996, where fossil fuel combusted either  
19 alone or in combination with any other fuel, comprises more than 50 percent of the annual  
20 heat input on a Btu basis during 1995, or, if a source had no heat input in 1995, during the  
21 last year of operation of the unit before 1995;

22 (B) For sources that began operation on or after January 1, 1996 and before January 1, 1997,  
23 where fossil fuel combusted either alone or in combination with any other fuel, comprises  
24 more than 50 percent of the annual heat input on a Btu basis during 1996; or

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

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

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

33 ~~(15)~~(16) "Indirect-fired process heater" means an enclosed device using controlled flame where the device's  
34 primary purpose is to transfer heat by indirect heat exchange to a process fluid, a process material  
35 that is not a fluid, or a heat transfer material, instead of steam, for use in a process.

- 1           (17)    “Large non-EGU” or large non-electric generating unit means a stationary fossil fuel fired boiler or  
2           combustion turbine with a maximum heat input greater than 250 MMBtu/hr which was permitted  
3           before October 31, 2000 that either:
- 4           (A)     does not serve at any time a generator producing electricity for sale; or  
5           (B)     serves at any time a generator producing electricity for sale and qualifies under 40 CFR  
6           72.6(b)(4), that addresses certain cogeneration facilities, as an unaffected unit for purposes  
7           of the Acid Rain Program.
- 8           ~~(16)~~(18) "Lean-burn internal combustion engine" means a spark ignition internal combustion engine  
9           originally designed and manufactured to operate with an exhaust oxygen concentration greater than  
10          one percent.
- 11          ~~(17)~~(19) "NOx" means nitrogen oxides.
- 12          (20) “NOx SIP Call control period” for the purposes of the NOx SIP Call budgets in 15A NCAC 02D .1425  
13          means the period May 1 through the end of September 30.
- 14          ~~(18)~~(21) "Ozone season" means the period beginning ~~May 31 and ending September 30 for 2004 and~~  
15          beginning May 1 and ending September 30 for all other years. 30.
- 16          ~~(19)~~(22) "Potential emissions" means the quantity of NOx that would be emitted at the maximum capacity  
17          of a stationary source to emit NOx under its physical and operational design. Any physical or  
18          operational limitation on the capacity of the source to emit NOx shall be treated as a part of its design  
19          if the limitation is federally enforceable. Such physical or operational limitations include air  
20          pollution control equipment and restrictions on hours of operation or on the type or amount of  
21          material combusted, stored, or processed.
- 22          ~~(20)~~(23) "Projected seasonal energy input" means the maximum design heat input per hour times 3300 hours.
- 23          ~~(21)~~(24) "Projected seasonal energy output" means the maximum design energy output per hour times 3300  
24          hours.
- 25          ~~(22)~~(25) "Reasonable assurance" means a demonstration to the Director that a method, procedure, or  
26          technique is possible and practical for a source or facility under the expected operating conditions.
- 27          ~~(23)~~(26) "Reasonably Available Control Technology" or "RACT" means the lowest emission limitation for  
28          NOx that a particular source can meet by the application of control technology that is reasonably  
29          available considering technological and economic feasibility.
- 30          ~~(24)~~(27) "Reasonable effort" means the proper installation of technology designed to meet the requirements  
31          of 15A NCAC 02D .1407, .1408, or .1409 and the utilization of this technology according to the  
32          manufacturer's recommendations or other similar guidance for not less than six months, in an effort  
33          to meet the applicable limitation for a source.
- 34          ~~(25)~~(28) "Rich-burn internal combustion engine" means a spark ignition internal combustion engine  
35          originally designed and manufactured to operate with an exhaust oxygen concentration less than or  
36          equal to one percent.

1 ~~(26)~~(29) "Seasonal energy input" means the total energy input of a combustion source during the period  
2 beginning May 1 and ending September 30.

3 ~~(27)~~(30) "Seasonal energy output" means the total energy output of a combustion source during the period  
4 beginning May 1 and ending September 30.

5 ~~(28)~~(31) "Shutdown" means the cessation of operation of a source or its emission control equipment.

6 ~~(29)~~(32) "Source" means a stationary boiler, combustion turbine, combined cycle system, reciprocating  
7 internal combustion engine, indirect-fired process heater, or a stationary article, machine, process  
8 equipment, or other contrivance, or combination thereof, from which NO<sub>x</sub> emanate or are emitted.

9 ~~(30)~~(33) "Startup" means the commencement of operation of any source that has shutdown or ceased  
10 operation for a period sufficient to cause temperature, pressure, process, chemical, or pollution  
11 control device imbalance that would result in excess emissions.

12 ~~(31)~~(34) "Stationary internal combustion engine" means a reciprocating internal combustion engine that is  
13 not self-propelled; however, it may be mounted on a vehicle for portability.

14 (b) Whenever reference is made to the Code of Federal Regulations in this Section, the definitions in the Code of  
15 Federal Regulations shall apply unless specifically stated otherwise in a particular rule in this Section.

16  
17 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(a)(7); 143-215.107(a)(10);  
18 Eff. April 1, 1995;  
19 Temporary Amendment Eff. August 1, 2001; November 1, 2000;  
20 Amended Eff. July 18, 2002;  
21 Readopted Eff. October 1, ~~2020~~2020;  
22 Amended Eff. ~~XXXX XX~~2022.  
23

1 15A NCAC 02D .1402 is proposed for amendment as follows:

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3 **15A NCAC 02D .1402 APPLICABILITY**

4 (a) The rules in this Section do not apply except as specifically set out in this Rule.

5 (b) The requirements of this Section apply to all sources May 1 through September 30 of each year.

6 (c) Rules 15A NCAC 02D .1409(c), ~~.1418~~ .1418, .1423, .1424, and ~~.1423~~ .1425 apply Statewide.

7 (d) Rules 15A NCAC 02D .1407 through .1409(b) and .1413 apply to facilities with potential emissions of NOx  
8 greater than or equal to 100 tons per year or 560 pounds per calendar day beginning May 1 through September 30 of  
9 any year in the following areas:

10 (1) Cabarrus County;

11 (2) Gaston County;

12 (3) Lincoln County;

13 (4) Mecklenburg County;

14 (5) Rowan County;

15 (6) Union County; and

16 (7) Davidson Township and Coddle Creek Township in Iredell County.

17 (e) If a violation of the ambient air quality standard for ozone is measured according to 40 CFR 50.9 in Davidson,  
18 Forsyth, or Guilford County or that part of Davie County bounded by the Yadkin River, Dutchmans Creek, North  
19 Carolina Highway 801, Fulton Creek and back to Yadkin River, the Director shall initiate analysis to determine the  
20 control measures needed to attain and maintain the ambient air quality standard for ozone. By the following May 1,  
21 the Director shall implement the specific stationary source control measures contained in this Section that are required  
22 as part of the control strategy necessary to bring the area into compliance and to maintain compliance with the ambient  
23 air quality standard for ozone. The Director shall implement the rules in this Section identified as necessary by the  
24 analysis by notice in the North Carolina Register. The notice shall identify the rules that are to be implemented and  
25 shall identify whether the rules implemented are to apply in Davidson, Forsyth, or Guilford County or that part of  
26 Davie County bounded by the Yadkin River, Dutchmans Creek, North Carolina Highway 801, Fulton Creek and back  
27 to Yadkin River or any combination thereof. At least one week before the scheduled publication date of the North  
28 Carolina Register containing the Director's notice implementing rules in this Section, the Director shall send written  
29 notification to all permitted facilities within the county where the Rules are being implemented that are or may be  
30 subject to the requirements of this Section, informing them that they are or may be subject to the requirements of this  
31 Section. For the purposes of notifying permitted facilities in Forsyth County, "Director" means the Director of the  
32 Forsyth County local air pollution control program. Compliance shall be determined by 15A NCAC 02D .1403.

33 (f) If a violation of the ambient air quality standard for ozone is measured according to 40 CFR 50.9 in Durham  
34 County, Wake County, or Dutchville Township in Granville County, the Director shall initiate analysis to determine  
35 the control measures needed to attain and maintain the ambient air quality standard for ozone. By the following May  
36 1, the Director shall implement the specific stationary source control measures contained in this Section that are  
37 required as part of the control strategy necessary to bring the area into compliance and to maintain compliance with

1 the ambient air quality standard for ozone. The Director shall implement the rules in this Section identified as  
2 necessary by the analysis by notice in the North Carolina Register. The notice shall identify the rules that are to be  
3 implemented and shall identify whether the rules implemented are to apply in Durham County, Wake County, or  
4 Dutchville Township in Granville County or any combination thereof. At least one week before the scheduled  
5 publication date of the North Carolina Register containing the Director's notice implementing 15A NCAC 02D .1407  
6 through .1409(b) and 15A NCAC 02D .1413, the Director shall send written notification to all permitted facilities  
7 within the county where the Rules are being implemented that are or may be subject to the requirements of this Section,  
8 informing them that they are or may be subject to the requirements of this Section. Compliance shall be according to  
9 15A NCAC 02D .1403.

10 (g) If the State nonattainment plan for ozone has failed to attain the ambient air quality standard for ozone in 40 CFR  
11 50.9 and does not qualify for an extension of the attainment date in the Charlotte-Gastonia-Rock Hill ozone  
12 nonattainment area, the rules in this Section shall apply to facilities in Cabarrus, Gaston, Lincoln, Mecklenburg,  
13 Rowan, and Union Counties and Davidson and Coddle Creek townships in Iredell County with the potential to emit  
14 at least 50 tons of NOx per year. Once the nonattainment plan for ozone has failed and the area does not qualify for  
15 an extension of the attainment date, the Director shall notice the applicability of these Rules to those sources in the  
16 North Carolina Register and shall send written notification to all permitted facilities within the counties where the  
17 Rules are being implemented that are or may be subject to the requirements of this Section, informing them that they  
18 are or may be subject to the requirements of this Section. For the purposes of notifying permitted facilities in  
19 Mecklenburg County, "Director" means the Director of the Mecklenburg County local air pollution control program.  
20 Compliance shall be according to 15A NCAC 02D .1403.

21 (h) Regardless of any other statement of applicability of this Section, this Section does not apply to any:

- 22 (1) source not required to obtain an air permit pursuant to 15A NCAC 02Q .0102 or is an insignificant  
23 activity as defined in 15A NCAC 02Q .0103;
- 24 (2) incinerator or thermal or catalytic oxidizer used primarily for the control of air pollution;
- 25 (3) emergency generator;
- 26 (4) emergency use internal combustion engine; or
- 27 (5) stationary internal combustion engine less than 2400 brake horsepower that operates no more than  
28 the following hours between May 1 and September 30:

29 (A) for diesel engines:

$$30 \quad t = \frac{833,333}{ES}$$

31 (B) for natural gas-fired engines:

$$32 \quad t = \frac{700,280}{ES}$$

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

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35 *History Note:* Authority G.S. 143-215.3(a)(1); 143.215.107(a)(5); 143.215.107(a)(7); 143.215.107(a)(10);  
36 Eff. April 1, 1995;  
37 Amended Eff. April 1, 1997; July 1, 1995; April 1, 1995;

1                    *Temporary Amendment Eff. November 1, 2000;*  
2                    *Amended Eff. April 1, 2001;*  
3                    *Temporary Amendment Eff. August 1, 2001;*  
4                    *Amended Eff. June 1, 2008; July 1, 2007; March 1, 2007; July 18, 2002;*  
5                    *Temporary Amendment Eff. December 31, 2008;*  
6                    *Temporary Amendment expired September 29, 2009;*  
7                    *Amended Eff. January 1, 2010;*  
8                    *Readopted Eff. October 1, ~~2020-2020~~;*  
9                    *Amended Eff. XXXX XX, 2022.*  
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1 15A NCAC 02D .1424 is proposed for adoption as follows:

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3 **15A NCAC 02D .1424 LARGE NON-ELECTRIC GENERATING UNITS**

4 (a) General requirements. The owner or operator of a large non-EGU shall comply with the monitoring, recordkeeping  
5 and reporting requirements in 15A NCAC 02D .0600, with the exception of .0604 and .0612. For a period of five  
6 years, the owner or operator shall maintain all records necessary for determining compliance with all applicable  
7 limitations and standards of this Section.

8 (b) The owner or operator of a large non-EGU covered by this Rule may request alternative monitoring procedures if  
9 the source is not required by 15A NCAC 02D .1418 or any other federal regulation to comply with 40 CFR Part 75.

10 (c) For a source subject to 40 CFR Part 60 Subpart D or Subpart Db, the source shall determine NOx mass emissions  
11 using the NOx emission rate, total heat input derived, and time interval from each type of fuel during the NOx SIP  
12 Call control period.

13 (d) For a large non-EGU requesting an alternative monitoring procedure, one of the following monitoring options  
14 shall be used to determine NOx emissions.

15 (1) For sources with at least five years of historical CEMS operational data, the NOx mass emissions  
16 shall be determined using:

17 (A) the average NOx concentration of the unit as demonstrated by previous 40 CFR Part 75  
18 monitoring;

19 (B) the average flow rate of the unit under normal operating conditions as demonstrated by  
20 previous 40 CFR Part 75 monitoring; and

21 (C) the total operating time.

22 (2) For sources without historical CEMS operational data, the source shall test utilizing 40 CFR Part  
23 60, Appendix A, Methods 1-4 and 7 or 7e to determine NOx concentration and flow rate factors  
24 prior to the ozone season for three years.

25 (A) The NOx concentration and flow rate factors determined from the testing and the number  
26 of hours operated during the ozone season will be used to determine NOx emissions for  
27 that ozone season.

28 (B) After a total of three years of testing, the source shall use the average NOx concentration  
29 and flow rate factors for subsequent ozone season NOx emissions reporting.

30 (e) If the approved alternative monitoring or reporting requirements differ from those specified in a corresponding  
31 rule in Subchapters 02D or 02Q of this Chapter, the permit shall contain conditions stating the monitoring or reporting  
32 requirements.

33  
34 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143.215.107(a)(5); 143.215.107(a)(7);*  
35 *143.215.107(a)(10);*  
36 *Eff. XXXX XX, 2022.*



1 15A NCAC 02D .1425 is proposed for adoption as follows:  
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3 **15A NCAC 02D .1425 NOX SIP CALL BUDGET**

4 (a) This Rule establishes general provisions and reporting requirements for the NOx SIP Call control period budgets  
5 pursuant to 40 CFR 51.121 through 51.122.

6 (b) The owner or operator of an EGU or large non-EGU as defined in 15A NCAC 02D .1401 shall submit a report to  
7 the Division no later than 120 days after the NOx SIP Call control period listing the NOx emissions from these sources  
8 during the NOx SIP Call control period. The NOx emissions in this report shall be determined in accordance with Part  
9 75 for EGUs and in accordance with 15A NCAC 02D .1424 for large non-EGUs.

10 (c) The information provided by the EGU and large non-EGU sources will be used to evaluate state level NOx budgets  
11 in Paragraph (d) of this Rule. The sum of the tons of NOx emitted from all such units in each control period beginning  
12 after the effective date of this rule shall not exceed this budget amount.

13 (d) For North Carolina's NOx Budget Program, the following budgets shall apply:

14 (1) The total NOx SIP Call control period budget for EGUs is 31,212 tons; and

15 (2) The total NOx SIP Call control period budget for large non-EGUs is 2,329 tons.

16  
17 History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143.215.107(a)(5); 143.215.107(a)(7);

18 143.215.107(a)(10);

19 Eff. XXXX XX, 2022.

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