

1 15A NCAC 02D .1401 is proposed for readoption without substantive changes as follows:

2
3 **SECTION .1400 – NITROGEN OXIDES**

4
5 **15A NCAC 02D .1401 DEFINITIONS**

6 (a) For the purpose of this Section, the definitions at G.S. 143-212 and G.S. 143-213, and 15A NCAC 02D .0101 shall
7 apply, and in addition the following definitions apply. If a term in this Rule is also defined at 15A NCAC 02D .0101,
8 then the 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 ~~Rules .1416 through .1422 of this Section, 15A NCAC 02D .1416~~
12 ~~through .1422~~ emissions of ~~nitrogen-oxides NOx~~ as measured and calculated according to 40 CFR
13 Part 75, Subpart H.
- 14 (3) "Actual heat input" means for ~~Rules .1416 through .1422 of this Section, 15A NCAC 02D .1416~~
15 ~~through .1422~~, heat input as measured and calculated according to 40 CFR Part 75, Subpart H.
- 16 (4) "Averaging set of sources" means all the stationary sources included in an emissions averaging plan
17 according to ~~Rule .1410 of this Section, 15A NCAC 02D .1410~~.
- 18 (5) "Averaging source" means a stationary source that is included in an emissions averaging plan in
19 accordance to ~~Rule .1410 of this Section, 15A NCAC 02D .1410~~.
- 20 (6) "Boiler" means an enclosed ~~fossil or other fuel-fired~~ combustion device used to produce heat and to
21 transfer heat to recirculating water, steam, or other medium.
- 22 (7) "Combined cycle system" means a system consisting of one or more combustion turbines, heat
23 recovery steam generators, and steam turbines configured to improve overall efficiency of electricity
24 generation or steam production.
- 25 (8) "Combustion turbine" means an enclosed fossil or other fuel-fired device that is comprised of a
26 compressor, a combustor, and a turbine, and in which the flue gas resulting from the combustion of
27 fuel in the combustor passes through the turbine, rotating the turbine.
- 28 (9) "Diesel engine" means a compression ignited two- or four-stroke engine in which liquid fuel injected
29 into the combustion chamber ignites when the air charge has been compressed to a temperature
30 sufficiently high for auto-ignition.
- 31 (10) "Dual fuel engine" means a compression ignited stationary internal combustion engine that is
32 burning liquid fuel and gaseous fuel simultaneously.
- 33 (11) "Emergency generator" means a stationary internal combustion engine used to generate electricity
34 only during:
- 35 (A) the loss of primary power at the facility that is beyond the control of the owner or operator
36 of the facility; or

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Commented [NBW3]: Suggest removing and saying
"means any enclosed combustion device....."

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

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

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

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

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

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

(13) "Excess emissions" means an emission rate that exceeds the applicable limitation or standard; for the purposes of this definition, nitrogen oxides (NO_x) emitted by a source covered under Rules .1416, .1417, or .1418 of this Section regulated by 15A NCAC 02D .1416, .1417, or .1418 during the ozone season above its allocation, as may be adjusted under Rule .1419 of this Section, are not considered excess emissions.

(14) "Fossil fuel fired" means:

(A) For sources that began operation before January 1, 1996, 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 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, 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 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.

(15) "Indirect-fired process heater" means an enclosed device using controlled flame where the device's primary purpose is to transfer heat by indirect heat exchange 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.

Commented [NBW4]: Comment from drbraswell
This rule doesn't seem to allow fire pumps or stormwater pumps that operate when the facility still has electricity to be considered "emergency". Is that intentional?

As an example, 40 CFR 63 Subpart ZZZZ specifically mentions "pumping water in the case of fire or flood" in the definition of "emergency stationary RICE"

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- 1 (16) "Lean-burn internal combustion engine" means a spark ignition internal combustion engine
 2 originally designed and manufactured to operate with an exhaust oxygen concentration greater than
 3 one percent.
- 4 (17) "~~NO_x~~" means nitrogen oxides.
- 5 (18) "Ozone season" means the period ~~beginning May 31 and ending September 30 for 2004~~ and
 6 beginning May 1 and ending September 30 for all other years.
- 7 (19) "Potential emissions" means the quantity of ~~NO_x, NO_x~~ that would be emitted at the maximum
 8 capacity of a stationary source to emit ~~NO_x, NO_x~~ under its physical and operational design. Any
 9 physical or operational limitation on the capacity of the source to emit ~~NO_x, NO_x~~ shall be treated as
 10 a part of its design if the limitation is federally enforceable. Such physical or operational limitations
 11 include air pollution control equipment and restrictions on hours of operation or on the type or
 12 amount of material combusted, stored, or processed.
- 13 (20) "Projected seasonal energy input" means the maximum design heat input per hour times 3300 hours.
- 14 (21) "Projected seasonal energy output" means the maximum design energy output per hour times 3300
 15 hours.
- 16 (22) "Reasonable assurance" means a demonstration to the Director that a method, procedure, or
 17 technique is possible and practical for a source or facility under the expected operating conditions.
- 18 (23) "Reasonably Available Control Technology" or "RACT" means the lowest emission limitation for
 19 ~~NO_x, NO_x~~ that a particular source can meet by the application of control technology that is
 20 reasonably available considering technological and economic feasibility.
- 21 (24) "Reasonable effort" means the proper installation of technology designed to meet the requirements
 22 of ~~Rules .1407, .1408, or .1409 of this Section~~ 15A NCAC 02D .1407, .1408, or .1409 and the
 23 utilization of this ~~technology, technology~~ according to the manufacturer's recommendations or other
 24 similar guidance for not less than six months, in an effort to meet the applicable limitation for a
 25 source.
- 26 (25) "Rich-burn internal combustion engine" means a spark ignition internal combustion engine
 27 originally designed and manufactured to operate with an exhaust oxygen concentration less than or
 28 equal to one percent.
- 29 (26) "Seasonal energy input" means the total energy input of a combustion source during the ~~period~~
 30 ~~beginning May 1 and ending September 30.~~
- 31 (27) "Seasonal energy output" means the total energy output of a combustion source during the ~~period~~
 32 ~~beginning May 1 and ending September 30.~~
- 33 (28) "Shutdown" means the cessation of operation of a source or its emission control equipment.
- 34 (29) "Source" means a stationary boiler, combustion turbine, combined cycle system, reciprocating
 35 internal combustion engine, indirect-fired process heater, or a stationary article, machine, process
 36 equipment, or other contrivance, or combination thereof, from which ~~nitrogen oxides NO_x~~ emanate
 37 or are emitted.

Commented [NBW7]: Adding consistent acronym throughout rule

Commented [NBW8]: Comment from drbraswell Should this rule still reference the 2004 ozone season?

Commented [NBW9]: Adding consistent acronym throughout rule

Commented [NBW10]: Adding consistent acronym throughout rule

Commented [NBW11]: Adding consistent acronym throughout rule

Commented [NBW12]: Adding consistent acronym throughout rule

Commented [NBW13]: Rule format revision

Commented [NBW14]: Comment from drbraswell Given that "ozone season" has been defined, should this refer to "ozone season" instead of May 1 - Sep 30?

Commented [NBW15]: Comment from drbraswell Given that "ozone season" has been defined, should this refer to "ozone season" instead of May 1 - Sep 30?

Commented [NBW16]: Revised for consistency

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

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

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

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

10 *Eff. April 1, 1995;*

11 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*

12 *Amended Eff. July 18, 2002.*

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1 15A NCAC 02D .1402 is proposed for readoption without substantive changes 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. Section .2400 of this Subchapter
5 applies rather than the nitrogen oxide (NOx) NOx state implementation plan (SIP) call (40 CFR 51.121) provisions of
6 Rules .1402(c) and (h), .1403(a) and (d) through (e), .1404(a), (b), and (d) through (j), .1409(c), (d), and (h), and .1416
7 through .1423 of this Subchapter.

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

9 (c) Rules .1409(c) and .1416 through .1423 of this Section apply statewide.

10 (d) Rules .1407 through .1409(b) and .1413 of this Section apply to facilities with potential emissions of nitrogen
11 oxides NOx equal to or greater than greater than or equal to 100 tons per year or 560 pounds per calendar day beginning
12 May 1 through September 30 of any year in the following areas:

13 (1) Cabarrus County;

14 (2) Gaston County;

15 (3) Lincoln County;

16 (4) Mecklenburg County;

17 (5) Rowan County;

18 (6) Union County; and

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

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

Commented [NBW17]: Comment from drbraswell
My understanding is that all facilities with .1400 rules in
their permits must continue to comply with those permit
conditions, regardless of the geographic applicability in (d).
Should that be included in this rule?

Commented [NBW18]: This sentence seems strange.
Believe it can be written in clearer language. Suggest "The
rules in this Section shall apply to sources specifically set out
in this rule." Rewritten sentence can also be used in 02D
.0902(a)

Commented [NBW19]: Comment from drbraswell
The 02D .2400 rules are officially expired. Therefore, this
exception seems meaningless.

Commented [NBW20]: Comment from drbraswell
During the ozone season.

Commented [NBW21]: Consistency of terms

Commented [NBW22]: Term corrected

Commented [NBW23]: Comment from drbraswell
The ozone nonattainment areas have changed. As of now, no
area in NC is ozone nonattainment.

Should "ozone nonattainment area" be defined as something
flexible? Otherwise, this rule should be updated each time
the nonattainment area is updated.

Commented [NBW24]: Comment from drbraswell
Has this changed as part of NC's redesignation?

Commented [NBW25]: Reword, remove parentheses.
Suggest "For the purposes of notifying permitted facilities in
Forsyth County, "Director" means the Director of the
Forsyth County local air pollution control program."

1 (f) If a violation of the ambient air quality standard for ozone is measured according to 40 CFR 50.9 in Durham ~~or~~
2 County, Wake ~~County~~ County, or Dutchville Township in Granville County, the Director shall initiate analysis to
3 determine the control measures needed to attain and maintain the ambient air quality standard for ozone. By the
4 following May 1, the Director shall implement the specific stationary source control measures contained in this Section
5 that are required as part of the control strategy necessary to bring the area into compliance and to maintain compliance
6 with the ambient air quality standard for ozone. The Director shall implement the rules in this Section identified as
7 necessary by the analysis by notice in the North Carolina Register. The notice shall identify the rules that are to be
8 implemented and shall identify whether the rules implemented are to apply in Durham ~~or~~ County, Wake ~~County~~
9 County, or Dutchville Township in Granville County or any combination thereof. At least one week before the
10 scheduled publication date of the North Carolina Register containing the Director's notice implementing Rules .1407
11 through .1409(b) and .1413 of this Section, the Director shall send written notification to all permitted facilities within
12 the county in which the rules are being implemented that are or may be subject to the requirements of this Section
13 informing them that they are or may be subject to the requirements of this Section. Compliance shall be in according
14 to Rule .1403 of this Section.

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

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

- 27 (1) source not required to obtain an air permit under 15A NCAC 02Q .0102 or is an insignificant activity
28 as defined at 15A NCAC 02Q .0103(19); in 15A NCAC 02Q .0103;
- 29 (2) incinerator or thermal or catalytic oxidizer used primarily for the control of air pollution;
- 30 (3) emergency generator;
- 31 (4) emergency use internal combustion engine; or
- 32 (5) stationary internal combustion engine less than 2400 brake horsepower that operates no more than
33 the following hours between May 1 and September 30;
 - 34 (A) for diesel engines:
35 t = 833,333 / ES
 - 36 (B) for natural gas-fired engines:
37 t = 700,280 / ES

Commented [NBW26]: Comment from drbraswell
Has this changed as part of NC's redesignation?

Commented [NBW27]: Consistency of terms

Commented [NBW28]: Comment from drbraswell
Noted that the correct reference is .0103(20)

Commented [NBW29R28]: Revised to only reference
rule and not specific subparagraph

Commented [NBW30]: "...during the ozone season;"

Commented [NBW31]: Suggest changing this to a
formula

Commented [NBW32]: Suggest changing this to a
formula

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

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*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (7), (10);
Eff. April 1, 1995;
Amended Eff. April 1, 1997; July 1, 1995; April 1, 1995;
Temporary Amendment Eff. November 1, 2000;
Amended Eff. April 1, 2001;
Temporary Amendment Eff. August 1, 2001;
Amended Eff. June 1, 2008; July 1, 2007; March 1, 2007; July 18, 2002;
Temporary Amendment Eff. December 31, 2008;
Temporary Amendment expired September 29, 2009;
Amended Eff. January 1, 2010.*

1 15A NCAC 02D .1403 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .1403 COMPLIANCE SCHEDULES**

4 (a) Applicability. This Rule applies to sources covered by Paragraph (d), (e), (f), or (g) of Rule .1402 of this Section,
5 regulated by 15A NCAC 02D .1402(d), (e), (f), or (g).

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6 (b) Maintenance area and Charlotte ozone nonattainment area contingency plan. The owner or operator of a source
7 subject to this Rule because of the applicability of Paragraph (e), (f), or (g) of Rule .1402 of this Section, 15A NCAC
8 02D .1402(d), (e), (f), or (g), shall adhere to the following increments of progress and schedules:

Commented [NBW34]: Comment from drbraswell
I don't believe that this exists any more.

If it does, should it be a definition? This rule refers to the
Charlotte ozone nonattainment area multiple times.

Commented [NBW35]: Rule format revision

9 (1) If compliance with this Section is to be achieved through a demonstration to certify compliance
10 without source modification:

11 (A) The owner or operator shall notify the Director in writing within six months after the
12 Director's notice in the North Carolina Register that the source is in compliance with the
13 applicable limitation or standard;

14 (B) The owner or operator shall perform any required testing, according to Rule .1415 of this
15 Section, pursuant to 15A NCAC 02D .1415, within 12 months after the Director's notice
16 in the North Carolina Register to demonstrate compliance with the applicable limitation;
17 and

Commented [NBW36]: Rule format revision

18 (C) The owner or operator shall implement any required recordkeeping and reporting
19 requirements, according to Rule .1404 of this Section, pursuant to 15A NCAC 02D .1404,
20 within 12 months after the Director's notice in the North Carolina Register to demonstrate
21 compliance with the applicable limitation.

Commented [NBW37]: Rule format revision

22 (2) If compliance with this Section is to be achieved through the installation of combustion modification
23 technology or other source modification:

24 (A) The owner or operator shall submit a permit application and a compliance schedule within
25 six months after the Director's notice in the North Carolina Register.

26 (B) The compliance schedule shall contain the following increments of progress:

27 (i) a date by which contracts for installation of the modification shall be awarded or
28 orders shall be issued for purchase of component parts;

29 (ii) a date by which installation of the modification shall begin;

30 (iii) a date by which installation of the modification shall be completed; and

31 (iv) if the source is subject to a limitation, a date by which compliance testing shall be
32 completed.

33 (C) Final compliance shall be achieved within three years after the Director's notice in the
34 North Carolina Register unless the owner or operator of the source petitions the Director
35 for an alternative limitation according to Rule .1412 of this Section, pursuant to 15A
36 NCAC 02D .1412. If such a petition is made, final compliance shall be achieved within
37 four years after the Director's notice in the North Carolina Register.

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Commented [NBW39]: Does this require Director
approval?

1 (3) If compliance with this Section is to be achieved through the implementation of an emissions
2 averaging plan ~~as provided for in Rule .1410 of this Section; pursuant to 15A NCAC 02D .1410,~~

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

6 (B) The owner or operator shall submit a plan to implement an emissions averaging plan
7 ~~according to Rule .1410 of this Section; pursuant to 15A NCAC 02D .1410~~ within six
8 months after the Director's notice in the North Carolina Register.

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

13 (4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel
14 switching program ~~as provided for in Rule .1411 of this Section; pursuant to 15A NCAC 02D .1410;~~

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

17 (B) The owner or operator shall include a plan for complying with the requirements of ~~Rule~~
18 ~~.1411 of this Section, 15A NCAC 02D .1411~~ with the permit application ~~required under~~
19 ~~Part (A) of this Subparagraph.~~

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

Commented [NBW44]: I believe this refers to the permit application required in .1402(b)(2)(A). Maybe change to "required by Paragraph (b) of this Rule."

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

25 (c) Nonattainment areas. The owner or operator of a source subject to this Rule because of the applicability of
26 ~~Paragraph (d) of Rule .1402 of this Section; 15A NCAC 02D .1402(d),~~ shall adhere to the following:

Commented [NBW45]: I assume we want to keep these rules intact.

27 (1) If compliance with this Section is to be achieved through a demonstration to certify compliance
28 without source modification:

Commented [KP46R45]: Ask management.

29 (A) The owner or operator shall notify the Director in writing by August 1, 2007;

30 (B) The owner or operator shall perform any required testing, according to Rule .1415 of this
31 Section, by January 1, 2008 and

Commented [NBW47]: Rule format revision

32 (C) The owner or operator shall implement any required recordkeeping and reporting
33 requirements, according to Rule .1404 of this Section, by January 1, 2008.

Commented [NBW48]: Comment from drbraswell
All of these dates have passed. Should this section be removed?

34 (2) If compliance with this Section is to be achieved through the installation of combustion modification
35 technology or other source modification:

36 (A) The owner or operator shall submit a permit application and a compliance schedule by
37 ~~August 1, 2007.~~

Commented [NBW49]: Comment from drbraswell
This date has passed. Should this section be removed?

- 1 (B) The compliance schedule shall contain a date by which contracts for installation of the
 2 modification shall be awarded or orders shall be issued for purchase of component parts.
- 3 (C) The compliance schedule shall contain a date by which installation of the modification
 4 shall begin.
- 5 (D) The compliance schedule shall contain a date by which installation of the modification
 6 shall be completed.
- 7 (E) If the source is subject to a limitation, the compliance schedule shall contain, a date by
 8 which compliance testing shall be completed.
- 9 (F) Final compliance shall be achieved no later than April 1, 2009.
- 10 (3) If compliance with this Section is to be achieved through the implementation of an emissions
 11 averaging plan as provided for in Rule .1410 of this Section:
- 12 (A) The owner or operator shall abide by the applicable requirements of Subparagraph (c)(1)
 13 or (c)(2) of this Rule for certification or modification of each source to be included under
 14 the averaging plan;
- 15 (B) The owner or operator shall submit a plan to implement an emissions averaging plan
 16 according to Rule .1410 of this Section by August 1, 2007.
- 17 (C) Final compliance shall be achieved within one year no later than January 1, 2008.
- 18 (4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel
 19 switching program as provided for in Rule .1411 of this Section:
- 20 (A) The owner or operator shall make all necessary modifications according to Subparagraph
 21 (c)(2) of this Rule.
- 22 (B) The owner or operator shall include a plan for complying with the requirements of Rule
 23 .1411 of this Section with the permit application required under Part (A) of this
 24 Subparagraph.
- 25 (C) Final compliance shall be achieved no later than April 1, 2009.
- 26 (5) Increments of progress certification. The owner or operator shall certify to the Director, within five
 27 days after the deadline for each increment of progress in this Paragraph, whether the required
 28 increment of progress has been met.
- 29 (d) Sources already in compliance.
- 30 (1) Maintenance area and Charlotte ozone nonattainment area contingency plan. Paragraph (b) of this
 31 Rule shall not apply to sources that are in compliance with the applicable rules of this Section when
 32 the Director notices the implementation of rules in the North Carolina Register that resolves a
 33 violation of the ambient air quality standard for ozone and that have has determined and certified
 34 compliance to the satisfaction of the Director within six months after the Director notices the
 35 implementation of rules in the North Carolina Register that resolves a violation of the ambient air
 36 quality standard for ozone.

Commented [NBW50]: Comment from drbraswell
This date has passed. Should this section be removed?

Commented [NBW51]: Comment from drbraswell
This date has passed. Should this section be removed?

Commented [NBW52]: Comment from drbraswell
This date has passed. Should this section be removed?

Commented [NBW53]: Comment from drbraswell
This date has passed. Should this section be removed?

Commented [NBW54]: This paragraph is wordy and has several issues.

Commented [NBW55]: Comment from drbraswell
As stated elsewhere, I believe that this area no longer exists.

Commented [NBW56]: Do we notice the implementation of rules? Don't we notice the promulgation of rules?

Commented [NBW57]: Need to reword or remove

Commented [NBW58]: This phrase is repeat of phrase earlier in the sentence

1 (2) Nonattainment areas. Paragraph (c) of this Rule shall not apply to sources in an area named in
2 ~~Paragraph (d) of Rule .1402 of this Section~~ 15A NCAC 02D .1402(d) that are in compliance with
3 applicable rules of this Section on March 1, 2007.

4 (e) New sources.

5 (1) Maintenance area and Charlotte ozone nonattainment area contingency plan. The owner or operator
6 of any new source of nitrogen oxides not permitted before the date the Director notices in the North
7 Carolina Register according to Paragraph (e), (f), or (g) of Rule .1402 of this Section, shall comply
8 with all applicable rules in this Section upon start-up of the source. The owner or operator of any
9 new source covered under Rules .1407, .1408, .1409, .1413, or .1418 of this Section shall comply
10 with all applicable rules in this Section upon start-up of the source.

11 (2) Nonattainment areas. The owner or operator of any new source of nitrogen oxides not permitted
12 before March 1, 2007 in an area identified in Paragraph (d) of Rule .1402 of this Section, shall
13 comply with all applicable rules in this Section upon start-up of the source.

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15 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.107(a)(5), (7), (10);*
16 *Eff. April 1, 1995;*
17 *Amended Eff. April 1, 1997;*
18 *Temporary Amendment Eff. November 1, 2000;*
19 *Amended Eff. April 1, 2001;*
20 *Temporary Amendment Eff. August 1, 2001;*
21 *Amended Eff. July 1, 2007; March 1, 2007; July 18, 2002.*
22
23

Commented [NBW59]: Comment from drbraswell
As stated elsewhere, I believe that this area no longer exists.

1 15A NCAC 02D .1404 is proposed for readoption without substantive changes as follows:

3 **15A NCAC 02D .1404 RECORDKEEPING: REPORTING: MONITORING:**

4 (a) General requirements. The owner or operator of any source shall comply with the monitoring, recordkeeping and
5 reporting requirements in ~~Section .0600 of this Subchapter~~ 15A NCAC 02D .0600 and shall maintain all records
6 necessary for determining compliance with all applicable limitations and standards of this Section for five years.

7 (b) Submittal of information to show compliance status. The owner or operator of any source shall ~~maintain and,~~
8 ~~maintain, and~~ when requested by the Director, submit any information required by this Section to determine the
9 compliance status of an affected source.

10 (c) Excess emissions reporting. The owner or operator shall report excess emissions following the procedures ~~under~~
11 ~~Rule .0535 of this Subchapter, in~~ 15A NCAC 02D .0535.

12 (d) Continuous emissions monitors.

13 (1) The owner or operator shall install, operate, and maintain a continuous emission monitoring system
14 according to 40 CFR Part 75, Subpart H, ~~with such exceptions as may be allowed under 40 CFR~~
15 ~~Part 75, Subpart H or 40 CFR Part 96 if the source is covered under Rule .1418 of this Section~~
16 ~~except internal combustion engines, by 15A NCAC 02D .1418 with the exception of internal~~
17 ~~combustion engines.~~

18 (2) The owner or operator of a source that is subject to the requirements of this Section but not covered
19 under Subparagraph (1) of this Paragraph and ~~that~~ uses a continuous emissions monitoring system
20 to measure emissions of nitrogen oxides shall operate and maintain the continuous emission
21 monitoring system according to 40 CFR Part 60, Appendix B, Specification 2, and Appendix F or
22 ~~40 CFR~~ Part 75, Subpart H. If diluent monitoring is required, 40 CFR Part 60, Appendix B,
23 Specification 3, shall be used. If flow monitoring is required, 40 CFR Part 60, Appendix B,
24 Specification 6, shall be used.

25 (3) The owner or operator of the following sources ~~is are~~ not required to use continuous emission
26 monitors unless the Director determines that a continuous emission monitor is ~~necessary under Rule~~
27 ~~.0611 of this Subchapter pursuant to 15A NCAC 02D .0611~~ to show compliance with ~~the rules of~~
28 this Section:

29 (A) a boiler or indirect-fired process heater ~~covered under Rule .1407 of this Section regulated~~
30 ~~by 15A NCAC 02D.1407~~ with a maximum heat input less than or equal to 250 million Btu
31 per hour;

32 (B) stationary internal combustion engines ~~covered under Rule .1409 of this Section regulated~~
33 ~~by 15A NCAC 02D .1409~~ except for ~~those engines covered under Rules .1409(b) and .1418~~
34 ~~of this Section, regulated by 15A NCAC 02D .1409(b) and .1418.~~

35 (e) Missing data.

Commented [NBW60]: Rule format revision

Commented [NBW61]: Comment from drbraswell .1423 contains specific recordkeeping requirements and a different retention timeline. There should be some exception written here or in .1423.

Commented [NBW62R61]: .1423 requires keeping records for 2 years

Commented [NBW63]: Grammar revision

Commented [NBW64]: Does this sentence need to be included? If they are following Part 75 wouldn't that include the exceptions?

Commented [NBW65]: Are IC engines exempt from installing CEMS? Maybe for clarification we need to add that "...with the exception of internal combustion engines which are exempt from this rule." or could they be covered under 40 CFR Part 75, Subpart H?

Commented [KP66R65]: Followup

Commented [NBW67]: Rule format revision

Commented [NBW68]: Rule format revision

Commented [NBW69]: Rule format revision

Commented [NBW70]: Rule format revision

1 (1) If data from continuous emission monitoring systems required to meet the requirements of 40 CFR
2 Part 75 are not available at a time that the source is operated, the procedures in 40 CFR Part ~~75.75,~~
3 Subpart D shall be used to supply the missing data.

4 (2) For continuous emissions monitors not covered under Subparagraph (1) of this Paragraph, data shall
5 be available for at least 95 percent of the emission sources operating hours for the applicable
6 averaging period, where four equally spaced readings constitute a valid hour. If data from
7 continuous emission monitoring systems are not available for at least 95 percent of the time that the
8 source is operated, the owner or operator of the monitor shall:

9 (A) use the procedures in 40 CFR 75.33 through 75.37 to supply the missing data; or

10 (B) document that the combustion source or process equipment and the control device were
11 being properly operated (~~acceptable operated and acceptable operating and maintenance~~
12 ~~procedures are were used being used, such as, compliance with permit conditions,~~
13 ~~operating and maintenance procedures, and preventative maintenance program, and~~
14 ~~monitoring results and compliance history~~) when the monitoring measurements were
15 missing. This includes compliance with permit conditions and preventive maintenance
16 programs.

17 (f) Quality assurance for continuous emissions monitors.

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

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

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

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

31 (i) a linearity test, ~~according to~~ in accordance with 40 CFR Part 75, Appendix A,
32 Section 3.2, 6.2, and 7.1;

33 (ii) a relative accuracy audit, ~~according to~~ in accordance with 40 CFR Part 60,
34 Appendix F, Section 5 and 6; or

35 (iii) a cylinder gas audit, ~~according to~~ in accordance with 40 CFR Part 60, Appendix
36 F, Section 5 and 6; and

Commented [NBW71]: This subparagraph was difficult to understand. Providing some revised draft language.

Commented [NBW72]: Comment from drbraswell The 02D .0600 rules (referenced in (a) above) already contain a rule for quality assurance (.0613). Should there be a specific exclusion in this rule (e.g. "Comply with the 02D .0600 rules, except 02D .0613.")?

Commented [KP73R72]: Followup

Commented [NBW74]: Preferred language

Commented [NBW75]: Preferred language

Commented [NBW76]: Preferred language

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

Commented [NBW77]: Preferred language

(g) 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 in 15A NCAC 02D .0606~~ shall be recorded for each day beginning May 1 through September 30 unless a specific rule requires a different averaging time or procedure. A 24-hour block average ~~described in Rule .0606 of this Subchapter as defined in 15A NCAC 02D .0606~~ shall be used when a continuous emissions monitoring system is used to determine compliance with a short-term ~~pounds per million Btu standard~~ pounds per million Btu standard in ~~Rule .1418 of this Section; 15A NCAC 02D .1418.~~

Commented [NBW78]: Rule format revision

Commented [NBW79]: Rule format revision

Commented [NBW80]: Term is not hyphenated

Commented [NBW81]: Rule format revision

(h) 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

Commented [NBW82]: We should be more specific, 40 CFR 75.16(e) or Appendix F.

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

(A) ~~40 CFR Part 75;~~

Commented [NBW83]: We should be more specific, 40 CFR 75.16(e) or Appendix F.

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

(C) the best available heat input data if approved by the ~~Director (the Director. The~~ Director shall grant approval if he finds that the heat input data is the best ~~available).~~ available.

Commented [NBW84]: I did not see any methods for calculating heat input in this rule

Commented [KP85R84]: followup

(i) 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; in 15A NCAC 02D .1415.~~

Commented [NBW86]: RRC requested eliminating parenthetical sentences

Commented [NBW87]: Rule format revision

(j) 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. pursuant to 15A NCAC 02D .0612.~~

Commented [NBW88]: Rule format revision

History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5),(7),(10); Eff. April 1, 1995; Amended Eff. April 1, 1999; Temporary Amendment Eff. November 1, 2000; Amended Eff. April 1, 2001; Temporary Amendment Eff. August 1, 2001; Amendment Eff. December 1, 2005; January 1, 2005; May 1, 2004; July 15, 2002; Temporary Amendment Eff. December 31, 2008(this amendment replaces the amendment approved by RRC on May 15, 2008); Amended Eff. September 29, 2009(amendment approved by RRC on May 15, 2008).

1 15A NCAC 02D .1405 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1405 CIRCUMVENTION**

4 (a) An owner or operator subject to this Section shall not build, erect, install or use any article, machine, equipment,
5 process, or method ~~which that~~ conceals an emission which would otherwise constitute a violation of an applicable
6 rule.

7 (b) Paragraph (a) of this Rule ~~includes includes, but is not limited to,~~ the use of gaseous diluent to achieve compliance
8 and the piecemeal carrying out of an operation to avoid coverage by a rule that applies only to operations larger than
9 a specified size.

10
11 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
12 *Eff. April 1, 1995.*
13
14

Formatted: Paragraph

Commented [NBW89]: Grammar revision

Commented [NBW90]: Revised to be consistent with the circumvention rule in .0906

Commented [KP91R90]: No change needed

1 15A NCAC 02D .1407 is proposed for reoption without substantive changes as follows:

2
3 **15A NCAC 02D .1407 BOILERS AND INDIRECT-FIRED PROCESS HEATERS**

4 (a) This Rule applies geographically ~~according to Rule .1402 of this Section, pursuant to 15A NCAC 02D .1402.~~

5 (b) The owner or operator of a boiler or indirect-fired process heater with a maximum heat input rate of less than or
6 equal to 50 million Btu per hour shall comply with the annual tune-up requirements of ~~Rule .1414 of this Section, 15A~~

7 ~~NCAC 02D .1412.~~ -The owner or operator of a boiler or indirect-fired process heater subject to the requirements of
8 this Paragraph shall maintain records of all tune-ups performed for each source ~~according to Rule .1404 of this Section,~~
9 ~~as required by 15A NCAC 02D .1404.~~

10 (c) The owner or operator of a fossil fuel-fired boiler with a maximum heat input rate less than or equal to 250 million
11 Btu per hour but greater than 50 million Btu per hour, a boiler with a maximum heat input greater than 50 million Btu
12 per hour that is not a fossil fuel-fired boiler, or an indirect-fired process heater with a maximum heat input greater
13 than 50 million Btu per hour shall comply by:

- 14 (1) installation of, if necessary, combustion modification technology or other NO_x control technology
15 and maintenance, including annual tune-ups and recordkeeping; and
- 16 (2) demonstration through source testing or continuous emission monitoring that the source complies
17 with the following applicable limitation:

18
19 **MAXIMUM ALLOWABLE NO_x EMISSION RATES FOR BOILERS AND INDIRECT PROCESS**
20 **HEATERS**
21 **(POUNDS PER MILLION BTU)**

22 Firing Method

Fuel/Boiler Type	Tangential	Wall	Stoker or Other
23 Coal (Wet Bottom)	1.0	1.0	N/A
24 Coal (Dry Bottom)	0.45	0.50	0.40
25 Wood or Refuse	0.20	0.30	0.20
26 Oil	0.30	0.30	0.30
27 Gas	0.20	0.20	0.20

28
29 (d) If the emissions are greater than the applicable limitation in Paragraph (c) of this Rule after reasonable effort as
30 defined in ~~Rule .1401 of this Section, 15A NCAC 02D .1401,~~ or if the requirements of this Rule are not RACT, the
31 owner or operator may petition the Director for an alternative limitation or standard ~~in accordance with Rule .1412 of~~
32 ~~this Section, pursuant to 15A NCAC 02D .1412.~~

33 (e) Compliance with the limitation established for a boiler or indirect-fired process heater under this Rule shall be
34 determined:

- 35 (1) using a continuous emission monitoring system if the boiler or indirect-fired process heater is
36 required to use a continuous emissions monitoring system ~~under Rule .0524 of this Section as~~
37 ~~required by 15A NCAC 02D .0524~~ or 40 CFR Part 60 to measure emissions of nitrogen oxides; or

Formatted: Paragraph

Commented [NBW92]: Rule format revision

Commented [NBW93]: Rule format revision

Commented [NBW94]: Rule format revision

Commented [NBW95]: Include language for allowing emissions averaging? Proposed addition "Unless the owner or operator chooses the option of emissions averaging in 15A NCAC 02D .1410, the owner....."

Commented [NBW96]: Propose removing these subparagraphs which are essentially the same requirements in Paragraph (e) and just referencing the table of limits. Therefore Paragraph (e) would read ".....shall comply with the following applicable limitation."

Commented [NBW97]: Rule format revision

Commented [NBW98]: Rule format revision

Commented [NBW99]: Rule format revision

1 (2) using annual source testing ~~according to Rule .1415 of this Section pursuant to 15A NCAC 02D~~
2 ~~.1415~~ for boilers or indirect-fired process heaters with a maximum heat input rate less than or equal
3 to 250 million Btu per hour but greater than 50 million ~~BTU Btu~~ per hour with the exception allowed
4 under Paragraph (f) of this Rule.

Commented [NBW100]: Rule format revision

Commented [NBW101]: Unit consistency

5 (f) If a source covered under this rule can burn more than one fuel, the owner or operator of the source may choose
6 not to burn one or more of these fuels during the ozone season. If the owner or operator chooses not to burn a particular
7 fuel, the sources testing required under Subparagraph (e)(2) this Rule shall not be required for that fuel.

8 (g) If two consecutive annual source tests show compliance, the Director ~~may shall~~ reduce the frequency of testing
9 up to once every five years. In years that a source test is not done, the boiler or indirect-fired process heater shall
10 comply with the annual tune-up requirements of ~~Rule .1414 of this Section, 15A NCAC 02D .1414.~~ If after the
11 Director reduces the frequency of testing, a source test shows that the emission limit ~~under in~~ this Rule is exceeded,
12 the Director shall require the boiler or indirect-fired process heater to be tested annually until two consecutive annual
13 tests show compliance. ~~Then the Director may again shall~~ reduce the frequency of ~~testing, testing to once every five~~
14 ~~years.~~

Commented [NBW102]: RRC does not like the term
"may" in rules

Commented [KP103R102]: Check with management.

Commented [NBW104]: Rule format revision

Commented [NBW105]: RRC does not like the term
"under" in rules

Commented [NBW106]: Revisions to clarify requirement

15
16 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5), (7), (10);*
17 *Eff. April 1, 1995;*
18 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
19 *Amended Eff. June 1, 2008; July 18, 2002;*
20 *Temporary Amendment Eff. December 31, 2008;*
21 *Temporary Amendment expired September 29, 2009.*
22
23

1 15A NCAC 02D .1408 is proposed for readoption without substantive changes as follows:

Formatted: Paragraph

2
3 **15A NCAC 02D .1408 STATIONARY COMBUSTION TURBINES**

4 (a) This Rule applies geographically ~~according to Rule .1402 of this Section, pursuant to 15A NCAC 02D .1402.~~

Commented [NBW107]: Rule format revision

5 (b) Unless the owner or operator chooses the option of emission averaging under Rule .1410 of this Section, the owner
6 or operator of a stationary combustion turbine with a heat input rate greater than 100 million Btu per hour but less
7 than or equal to 250 million Btu per hour shall comply with the following limitations:

- 8 (1) Emissions of NO_x shall not exceed 75 ppm by volume corrected to 15 percent oxygen for gas-fired
9 turbines, or
10 (2) Emissions of NO_x shall not exceed 95 ppm by volume corrected to 15 percent oxygen for oil-fired
11 turbines.

12 If necessary, the owner or operator shall install combustion modification technology or other NO_x control technology
13 to comply with the applicable limitation set forth in this Paragraph.

14 (c) If the emissions are greater than the applicable limitation in Paragraph (b) of this Rule after reasonable effort as
15 defined in Rule .1401 of this Section, or if the requirements of this Rule are not RACT for the particular stationary
16 combustion turbine, the owner or operator may petition the Director for an alternative limitation or standard according
17 to Rule .1412 of this Section.

18 (d) Compliance with the limitation established for a stationary combustion turbine under this Rule shall be determined:

- 19 (1) ~~using a continuous emissions monitoring system,~~ or
20 (2) using annual source testing according to Rule .1415 of this Section.

Commented [NBW108]: Comment from drbraswell
"in accordance with .1404(d)"?

Commented [KP109R108]: followup

21 (e) If a source covered under this rule can burn more than one fuel, the owner or operator of the source may choose
22 not to burn one or more of these fuels during the ozone season. If the owner or operator chooses not to burn a particular
23 fuel, the sources testing required under this Rule is not required for that fuel.

24
25 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5), (7), (10);*
26 *Eff. April 1, 1995;*
27 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
28 *Amended Eff. June 1, 2008; July 18, 2002;*
29 *Temporary Amendment Eff. December 31, 2008;*
30 *Temporary Amendment expired September 29, 2009.*
31
32

1 15A NCAC 02D .1409 is proposed for reoption without substantive changes as follows:

3 15A NCAC 02D .1409 STATIONARY INTERNAL COMBUSTION ENGINES

4 (a) This Rule applies geographically ~~according to Rule .1402 of this Section, pursuant to 15A NCAC 02D .1402.~~

5 (b) The owner or operator of a stationary internal combustion engine ~~having with~~ a rated capacity of ~~650 horsepower~~
6 ~~or more greater than or equal to 650 horsepower~~ that is not covered under Paragraph (c) of this Rule or ~~Rule .1418 of~~
7 ~~this Section 15A NCAC 02D .1418~~ shall not allow emissions of ~~NO_x, NO_x~~ from the stationary internal combustion
8 engine to exceed the following limitations:

10 MAXIMUM ALLOWABLE NO_x EMISSION RATES FOR
11 STATIONARY INTERNAL COMBUSTION ENGINES
12 (GRAMS PER HORSEPOWER HOUR)

14 Engine Type	Fuel Type	Limitation
15 Rich-burn	Gaseous	2.5
16 Lean-burn	Gaseous	2.5
17 Compression Ignition	Liquid	8.0

19 (c) Engines identified in the table in this Paragraph shall not exceed the emission limit in the table during the ozone
20 season.

21

SUM OF MAXIMUM ALLOWABLE OZONE SEASON ~~NO_x, NO_x~~ EMISSIONS
(tons per ozone season)

22 FACILITY	REGULATED SOURCES	ALLOWABLE EMISSIONS
23 Transcontinental Gas Pipeline Station 150	Mainline engines #12, 13, 14, and 15	76
24 Transcontinental Gas Pipeline Station 155	Mainline engines #2, 3, 4, 5, and 6	127
25 Transcontinental Gas Pipeline Station 160	Mainline engines #11, 12, 13, 14, and 15	149

23 Compliance shall be determined by summing the actual emissions from the engines listed in the table at each facility
24 for the ozone season and comparing those sums to the limits in the table. ~~Compliance may be achieved through trading~~
25 under Paragraph (g) of this Rule if the trades are approved before the ozone season.

Commented [NBW110]: Rule format revision

Commented [NBW111]: Include language for allowing emissions averaging? Proposed addition "Unless the owner or operator chooses the option of emissions averaging in 15A NCAC 02D .1410, the owner....."

Commented [KP112R111]: No

Commented [NBW113]: Plain english revision

Commented [NBW114]: Term revised for consistency

Commented [NBW115]: Subscript used to be consistent

1 (d) If the emissions from that stationary internal combustion engine are greater than the applicable limitation in
2 Paragraph (b) of this Rule after reasonable effort as defined in ~~Rule .1401 of this Section, 15A NCAC 02D .1401~~, or
3 if the requirements of this Rule are not RACT for the particular stationary internal combustion engine, the owner or
4 operator may petition the Director for an alternative limitation or standard ~~according to Rule .1412 of this Section,~~
5 ~~pursuant to 15A NCAC 02D .1412.~~

Commented [NBW116]: Rule format revision

6 (e) For the engines identified in Paragraph (c) of this Rule and any engine involved in emissions trading with one or
7 more of the engines identified in Paragraph (c) of this Rule, the owner or operator shall determine compliance using:

Commented [NBW117]: Rule format revision

- 8 (1) a continuous emissions monitoring system which meets the applicable requirements of Appendices
9 B and F of 40 CFR part 60 and ~~Rule .1404 of this Section, 15A NCAC 02D .1404~~; or
- 10 (2) an alternate monitoring and recordkeeping procedure based on actual emissions testing and
11 correlation with operating parameters.

12 The installation, implementation, and use of this alternate procedure allowed under Subparagraph (e)(2) of this
13 Paragraph shall be approved by the Director before it may be used. ~~The Director may shall~~ approve the alternative
14 procedure if he finds that it can show the compliance status of the engine.

15 (f) If a stationary internal combustion engine is permitted to operate more than 475 hours during the ozone season,
16 compliance with the limitation established for a stationary internal combustion engine under Paragraph (b) of this Rule
17 shall be determined using annual source testing ~~according to Rule .1415 of this Section, pursuant to 15A NCAC 02D~~
18 ~~.1415.~~ If a source covered under this rule can burn more than one fuel, then the owner or operator of the source may
19 choose not to burn one or more of these fuels during the ozone season. If the owner or operator chooses not to burn a
20 particular fuel, the source testing required under this Rule is not required for that fuel.

Commented [NBW118]: Rule format revision

21 (g) If a stationary internal combustion engine is permitted to operate no more than 475 hours during the ozone season,
22 the owner or operator of the stationary internal combustion engine shall show compliance with the limitation under
23 Paragraph (b) of this Rule with source testing during the first ozone season of operation ~~according to Rule .1415 of~~
24 ~~this Section, pursuant to 15A NCAC 02D .1415.~~ Each year after that, the owner or operator of the stationary internal
25 combustion engine shall comply with the annual tune-up requirements of ~~Rule .1414 of this Section, 15A NCAC 02D~~
26 ~~.1414.~~

Commented [NBW119]: Rule format revision

27 (h) The owner or operator of a source covered under Paragraph (c) of this Rule may offset part or all of the emissions
28 of that source by reducing the emissions of another stationary internal combustion engine at that facility by an amount
29 equal to or greater than the emissions being offset. ~~Only actual decreased emissions that have not previously been~~
30 ~~relied on to comply with Subchapter 02D or 02Q of this Title or Title 40 of the Code of Federal Regulations may be~~
31 ~~used to offset the emissions of another source. The person requesting the offset shall submit the following information~~
32 ~~to the Director:~~

Commented [NBW120]: Rule format revision

Commented [NBW121]: These 2 paragraphs should be combined and add subparagraphs

- 33 (1) identification of the source, including permit number, providing the offset and what the new
34 allowable emission rate for the source will be;
- 35 (2) identification of the source, including permit number, receiving the offset and what the new
36 allowable emission rate for the source will be;
- 37 (3) the amount of allowable emissions in tons per ozone season being offset;

- 1 (4) a description of the monitoring, recordkeeping, and reporting that shall be used to show compliance;
2 and
3 (5) documentation that the offset is an actual decrease in emissions that has not previously been relied
4 on to comply with Subchapter 02D or 02Q of this Title or Title 40 of the Code of Federal
5 Regulations.

6 The Director **may shall** approve the offset if **he or she** finds that all the information required by this Paragraph has
7 been submitted and that the offset is an actual decrease in emissions that have not previously been relied on to comply
8 with Subchapter 02D or 02Q of this Title or Title 40 of the Code of Federal Regulations. -If the Director approves the
9 offset, **he or she** shall put the new allowable emission rates in the respective permits.

10
11 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5), (7), (10);*
12 *Eff. April 1, 1995;*
13 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
14 *Amended Eff. June 1, 2008; June 1, 2004; July 18, 2002;*
15 *Temporary Amendment Eff. December 31, 2008;*
16 *Temporary Amendment expired September 29, 2009.*
17
18

Commented [NBW122]: RRC does not like the use of "may" in rule language

Commented [KP123R122]: Check with management.

Commented [NBW124]: Gender neutral language

Commented [NBW125]: Gender neutral language

1 15A NCAC 02D .1410 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1410 EMISSIONS AVERAGING**

4 (a) This Rule shall not apply to sources ~~covered under Rules or .1418 of this Section, regulated by 15A NCAC 02D~~
5 ~~.1418~~. Sources that have obtained an alternative limitation ~~as provided by Rule .1412 of this Section pursuant to 15A~~
6 ~~NCAC 02D .1412~~ or that apply seasonal fuel switching ~~as provided by Rule .1411 of this Section pursuant to 15A~~
7 ~~NCAC 02D .1411~~ are not eligible to participate in an emissions averaging plan under this Rule.

8 (b) With the exceptions in Paragraph (a) of this Rule, the owner or operator of a facility with two or more sources
9 with comparable plume rise and subject to the requirements of this Section for all such sources as determined by ~~Rule~~
10 ~~.1402 of this Section 15A NCAC 02D .1402~~ may elect to apply an emissions averaging plan according to Paragraph

11 (c) of this Rule. An ~~emission emissions~~ averaging plan may be used if the total NO_x emissions from the averaged set
12 of sources based on the total heat input are equal to or less than the NO_x emissions that would have occurred if each
13 source complied with the applicable limitation.

14 (c) To request approval of an emissions averaging plan to comply with the requirements of this Section, the owner or
15 operator of a facility shall submit a written request to the Director including the following information:

- 16 (1) the name and location of the facility;
- 17 (2) information identifying each source to be included under the averaging plan;
- 18 (3) the maximum heat input rate for each source;
- 19 (4) the fuel or fuels combusted in each source;
- 20 (5) the maximum allowable NO_x emission rate proposed for each averaging source;
- 21 (6) a demonstration that the nitrogen oxide emissions of the sources being averaged when operated
22 together at the maximum daily heat input rate, will be less than or equal to the total NO_x emissions
23 if each source complied with the applicable limitation of this Section individually;
- 24 (7) an operational plan to provide reasonable assurance that the sources being averaged will satisfy
25 Subparagraph (5) of this Paragraph when the combined maximum daily heat input rate is less than
26 the permitted maximum heat input rate; and
- 27 (8) the method to be used to determine the actual NO_x emissions from each source.

28
29 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.107(a)(5), (7), (10);*
30 *Eff. April 1, 1995;*
31 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
32 *Amended Eff. July 18, 2002;*
33 *Temporary Amendment Eff. December 31, 2008(this amendment replaces the amendment approved*
34 *by RRC on May 15, 2008);*
35 *Amended Eff. September 29, 2009(amendment approved by RRC on May 15, 2008).*
36

Commented [NBW126]: This references .1416 and .1417 which have been repealed. After repeal the sentence should have read "...covered under Rule .1418 of this Section."

Commented [NBW127]: Rule format revision

Commented [NBW128]: Rule format revision

Commented [NBW129]: Rule format revision

Commented [NBW130]: Revised for consistency

1 15A NCAC 02D .1411 is proposed for readoption without substantive changes as follows:

3 **15A NCAC 02D .1411 SEASONAL FUEL SWITCHING**

4 (a) This Rule shall not apply to sources ~~covered under Rule .1418 of this Section, regulated by 15A NCAC 02D .1418.~~

Commented [NBW131]: Rule format revision

5 (b) The owner or operator of a coal-fired or oil-fired boiler subject to the requirements of ~~Rule .1407 of this Section~~

6 ~~15A NCAC 02D .1407~~ may elect to comply by applying seasonal combustion of natural gas according to Paragraph

Commented [NBW132]: Rule format revision

7 (c) of this Rule. This option is not available to a boiler that used natural gas as its primary fuel in ~~or since 1990.~~

8 ~~calendar year 1990 or thereafter.~~ Compliance with this Section according to this Rule does not remove or reduce any

Commented [NBW133]: Clarification

9 applicable requirement of the Acid Rain Program.

10 (c) The owner or operator electing to comply with the requirements of this Section through the seasonal combustion
11 of natural gas shall establish a NO_x emission limit beginning October 1 and ending April 30 that will result in annual
12 NO_x emissions of less than or equal to the NO_x that would have been emitted if the source complied with the applicable
13 limitation for the combustion of coal for the entire calendar year. Compliance with this Section according to this Rule
14 does not remove or reduce any applicable requirement of the Acid Rain Program.

15 (d) To comply with the requirements of this Section through the seasonal combustion of natural gas, the owner or
16 operator shall submit to the Director the following information:

- 17 (1) the name and location of the facility;
- 18 (2) information identifying the source to use seasonal combustion of natural gas for compliance;
- 19 (3) the maximum heat input rate for each source;
- 20 (4) a demonstration that the source will comply with the applicable limitation for the combustion of
21 coal during the ozone season
- 22 (5) a demonstration that the source will comply with the NO_x emission limitation established under
23 Paragraph (c) of this Rule beginning October 1 and ending April 30; and
- 24 (6) a written statement from the natural gas supplier providing reasonable assurance that the fuel will
25 be available beginning during the ozone season.

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

28 *Eff. April 1, 1995;*

29 *Temporary Amendment Eff November 1, 2000;*

30 *Amended Eff. April 1, 2001;*

31 *Temporary Amendment Eff August 1, 2001;*

32 *Amended Eff. June 1, 2008; July 18, 2002;*

33 *Temporary Amendment Eff. December 31, 2008;*

34 *Temporary Amendment expired September 29, 2009.*

1 15A NCAC 02D .1412 is proposed for readoption without substantive changes as follows:

3 **15A NCAC 02D .1412 PETITION FOR ALTERNATIVE LIMITATIONS**

4 (a) ~~If the~~The owner or operator of a source subject to the requirements of ~~Rule .1407, .1408, or .1409(b) of this~~
5 ~~Section, 15A NCAC 02D .1407, .1408, or .1409(b) may petition the Director for an alternative limitation pursuant to~~
6 ~~Paragraph (b) or (c) of this Rule if they:~~

7 (1) cannot achieve compliance with the applicable limitation after reasonable effort to satisfy the
8 requirements of ~~Rules .1407, .1408, or .1409 of this Section, 15A NCAC 02D .1407, .1408, or .1409~~
9 ~~or if the requirements of Rules .1407, .1408, or .1409 of this Section in these Rules~~ are not RACT
10 for the particular source; and

11 (2) cannot provide reasonable assurance for overall compliance at a facility through the implementation
12 of an emissions averaging plan ~~as provided for in Rule .1410 of this Section; pursuant to 15A NCAC~~
13 ~~02D .1410.~~

14 ~~the owner or operator may petition the Director for an alternative limitation according to Paragraph (b) or (c) of this~~
15 ~~Rule.~~

16 (b) To petition the Director for an alternative limitation, the owner or operator of the source shall submit;

- 17 (1) the name and location of the facility;
- 18 (2) information identifying the source for which an alternative limitation is being requested;
- 19 (3) the maximum heat input rate for the source;
- 20 (4) the fuel or fuels combusted in the source;
- 21 (5) the maximum allowable NO_x emission rate proposed for the source for each fuel;
- 22 (6) a demonstration that the source has satisfied the requirements to apply for an alternative limitation
- 23 under Paragraph (a) of this Rule; and
- 24 (7) a demonstration that the proposed alternative limitation is RACT for that source.

25 (c) If the source is required to comply with best achievable control technology ~~under Rule .0530, Prevention of~~
26 ~~Significant Deterioration, of this Subchapter, pursuant to 15A NCAC 02D .0530,~~ the owner or operator of the source
27 shall provide the information required under Subparagraphs (b)(1) through (6) of this Rule and documentation that
28 the source is required to use best available control technology and is complying with that requirement. ~~For this source,~~
29 ~~its~~ This best available control technology shall be considered RACT without any further demonstrations. ~~for this~~
30 ~~source.~~

31 (d) The Director shall approve the alternative limitation if ~~he finds they find~~ that:

- 32 (1) all the information required by Paragraph (b) of this Rule has been submitted,
- 33 (2) the requirements of Paragraph (a) of this Rule have been satisfied, and
- 34 (3) the proposed alternative limitation is RACT for that source.

35
36 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.107(a)(5), (7), (10);
37 *Eff. April 1, 1995;*

Commented [NBW134]: Revision of paragraph for clarity.

Commented [NBW135]: Rule formatting revision

Commented [NBW136]: Sentence revised for clarification.

Commented [NBW137]: Gender neutral language

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Temporary Amendment Eff. August 1, 2001; November 1, 2000;
Amended Eff. June 1, 2008; July 18, ~~2002-2002~~;
Readopted Eff. _____.

1 15A NCAC 02D .1413 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1413 SOURCES NOT OTHERWISE LISTED IN THIS SECTION**

4 (a) The owner or operator of any source of nitrogen oxides, except boilers, indirect-fired process heaters, stationary
5 combustion turbines, or stationary internal combustion engines, at a facility that has the potential to emit greater than
6 or equal to 100 tons per year or more of nitrogen oxides or greater than or equal to 560 pounds per calendar day or
7 more of nitrogen oxides from May 1 through September ~~30~~ 30, shall apply RACT ~~according pursuant~~ to Paragraph
8 (b) of this Rule.

9 (b) To apply RACT to a source of nitrogen oxides covered ~~under pursuant to~~ this Rule, the owner or operator of the
10 source shall submit;

- 11 (1) the name and location of the facility;
- 12 (2) information identifying the source for which RACT is being proposed;
- 13 (3) a demonstration that shows the proposed limitation is RACT for the source; and
- 14 (4) a proposal for demonstrating compliance with the proposed RACT.

15 (c) The Director shall approve the proposed limitation if ~~he finds~~ they find that:

- 16 (1) the owner or operator of the source has submitted all the information required under Paragraph (b)
17 of this Rule;
- 18 (2) the sources is covered under this Rule; and
- 19 (3) the proposed limitation is RACT for this source.

20
21 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);*
22 *Eff. April 1, 1995;*
23 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
24 *Amended Eff. July 18, ~~2002-2002~~;*
25 *Readopted Eff. _____.*
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Commented [NBW139]: Comment from drbraswell
"during the ozone season"

Commented [NBW140]: Added clarifying language

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1 15A NCAC 02D .1414 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1414 TUNE-UP REQUIREMENTS**

4 (a) This Rule applies to boilers and indirect-fired process heaters subject to the requirements of ~~Rule .1407 of this~~
5 ~~Section 15A NCAC 02D .1407~~ or stationary internal combustion engines subject to the requirements of ~~Rule .1409 of~~
6 ~~this Section 15A NCAC 02D .1409~~ that are complying with ~~Rules .1407 or .1409 of this Section through an the annual~~
7 ~~tune-up; tune-up requirement.~~

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8 (b) When a tune-up to a boiler or indirect-fired process heater is required for compliance with this Section, the owner
9 or operator shall at least annually and according to the manufacturer's recommendations:

- 10 (1) inspect each burner and clean or replace any component of the burner as required;
- 11 (2) inspect the flame pattern and make any adjustments to the burner, or burners, necessary to optimize
12 the flame pattern to minimize total emissions of ~~NO_x, NO_x~~ and carbon monoxide;
- 13 (3) inspect the combustion control system to ensure proper operation and correct calibration of
14 components that control the air to fuel ratio and adjust components to meet the manufacturer's
15 established operating parameters; and
- 16 (4) inspect any other component of the boiler or indirect-fired process heater and make adjustments or
17 repairs as necessary to improve combustion efficiency.

Commented [NBW145]: Revision for consistency

18 The owner or operator shall perform the tune-up according to a unit specific protocol approved by the Director. The
19 Director shall approve the protocol if it meets the requirements of this Rule.

20 (c) When a tune-up to a stationary internal combustion engine is required for compliance with this Section, the owner
21 or operator shall at least annually inspect, adjust, and repair or replace according to the manufacturer's
22 recommendation, the following, as equipped:

- 23 (1) engine air cleaners, fuel filters, and water traps;
- 24 (2) turbochargers and superchargers;
- 25 (3) spark plugs;
- 26 (4) valve lash;
- 27 (5) ignition systems, including ignition coils and wiring;
- 28 (6) aftercooler cores;
- 29 (7) any other component of the engine as necessary to improve engine efficiency; and
- 30 (8) emission control systems.

31 The owner or operator shall perform the tune-up according to a unit specific protocol, including inspection,
32 maintenance, and performance procedures as recommended by the ~~manufacturer, manufacturer and~~ approved by the
33 Director. The Director shall approve the protocol if it meets the requirements of this Rule.

34 (d) The owner or operator shall maintain records of tune-ups performed to comply with this Section ~~according to Rule~~
35 ~~.1404 of this Section, pursuant to 15A NCAC 02D .1404.~~ The following information shall be included for each source:

- 36 (1) identification of the source;
- 37 (2) the date and time the tune-up started and ended;

- 1 (3) the person responsible for performing the tune-up;
- 2 (4) for boilers and indirect-fired process heaters, the checklist for inspection of the burner, flame pattern,
3 combustion control system, and all other components of the boiler or indirect-fired process heater
4 identified in the protocol, noting any repairs or replacements made;
- 5 (5) for stationary internal combustion engines, the checklist for engine air cleaners, turbochargers,
6 sparkplugs, valve lash, ignition coils and wiring, aftercooler cores, and all other components of the
7 engine identified in the protocol, noting any repairs or replacements made;
- 8 (6) any stack gas analyses performed after the completion of all adjustments to show that the operating
9 parameters of the boiler, indirect-fired process heater, or stationary internal combustion engine have
10 been optimized with respect to fuel consumption and output; at a minimum these parameters shall
11 be within the range established by the equipment manufacturer to ensure that the emission limitation
12 for nitrogen oxides has not been exceeded; and
- 13 (7) any other information requested by the Director to show that the boiler, indirect-fired process heater,
14 or stationary internal combustion engine is being operated and maintained in a manner to minimize
15 the emissions of nitrogen oxides.

16
17 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);*
18 *Eff. April 1, 1995;*
19 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
20 *Amended Eff. July 18, 2002.*
21
22

1 15A NCAC 02D .1415 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1415 TEST METHODS AND PROCEDURES**

4 (a) When source testing is used to determine compliance with rules in this Section, the methods and procedures in
5 ~~Section .2600 of this Subchapter~~ 15A NCAC 02D .2600 shall be used.

6 (b) The owner or operator shall maintain records of tests performed to demonstrate compliance with this Section
7 ~~according to Rule .1404 of this Section;~~ as required by 15A NCAC 02D .1404.

8
9 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
10 Eff. April 1, 1995;
11 Temporary Amendment Eff. August 1, 2001; November 1, 2000;
12 Amended Eff. June 1, 2008; July 18, 2002.
13
14

1 15A NCAC 02D .1418 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1418 NEW ELECTRIC GENERATING UNITS, LARGE BOILERS, COMBUSTION**
4 **TURBINES, AND LARGE I/C ENGINES**

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

9 (1) 0.15 pounds per million Btu for gaseous and solid fuels and 0.18 pounds per million Btu for liquid
10 fuels if it is not ~~covered under Rule .0530 (prevention of significant deterioration) or .0531~~
11 ~~(nonattainment area major new source review) of this Subchapter; regulated by 15A NCAC 02D~~
12 .0530 or .0531;

13 (2) if regulated by 15A NCAC 02D .0530, meet the best available control technology requirements in
14 15A NCAC 02D .0530 or 0.15 pounds per million Btu for gaseous and solid fuels and 0.18 pounds
15 per million Btu for liquid fuels or best available control technology requirements of Rule .0530 of
16 this Subchapter, fuels, whichever requires the greater degree of reduction, if it is covered under Rule
17 .0530 of this Subchapter; reduction; or

18 (3) if regulated by 15A NCAC 02D .0531, meet the lowest available emission rate technology
19 requirements of Rule .0531 of this Subchapter if it is covered under Rule .0531 of this Subchapter.
20 in 15A NCAC 02D .0531.

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

25 (1) 0.17 pounds per million Btu for gaseous and solid fuels and 0.18 pounds per million Btu for liquid
26 fuels if it is not ~~covered under Rule .0530 (prevention of significant deterioration) or .0531~~
27 ~~(nonattainment area major new source review) of this Subchapter; regulated by 15A NCAC 02D~~
28 .0530 or .0531;

29 (2) if regulated by 15A NCAC 02D .0530, meet the best available control technology requirements in
30 15A NCAC 02D .0530 or 0.17 pounds per million Btu for gaseous and solid fuels and 0.18 pounds
31 per million Btu for liquid fuels or best available control technology requirements of Rule .0530 of
32 this Subchapter, fuels, whichever requires the greater degree of reduction, if it is covered under Rule
33 .0530 of this Subchapter; reduction; or

34 (3) if regulated by 15A NCAC 02D .0531, meet the lowest available emission rate technology
35 requirements of Rule .0531 of this Subchapter if it is covered under Rule .0531 of this Subchapter.
36 15A NCAC 02D .0531.

Commented [NBW146]: Title revised to include combustion turbines and clarify that these requirements are for new sources

Commented [DMF147]: Do we need this language? If I'm not mistaken, an affected facility's permit has been renewed several times by now. If the language is intended to showcase a construction/modification date, I'd leave it in and note that circumstance in the rule.

Commented [NBW148]: Revision for clarity

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Commented [NBW152]: Paragraph also includes combustion turbines

Commented [NBW153]: Do we still need to include this permit date?

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1 (c) Internal combustion engines. The following reciprocating internal combustion engines permitted after October 31,
2 2000, shall comply with the applicable requirements in Rule .1423 of this Section if the engine is not covered under
3 Rule .0530 (prevention of significant deterioration) or .0531 (nonattainment area major source review) of this
4 Subchapter:

- 5 (1) rich burn stationary internal combustion engines rated at equal to or greater than 2,400 brake
6 horsepower,
- 7 (2) lean burn stationary internal combustion engines rated at equal to or greater than 2,400 brake
8 horsepower,
- 9 (3) diesel stationary internal combustion engines rated at equal to or greater than 3,000 brake
10 horsepower, or
- 11 (4) dual fuel stationary internal combustion engines rated at equal or to greater than 4,400 brake
12 horsepower,

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

17 (d) Monitoring. The owner or operator of a source subject to this Rule except internal combustion engines shall show
18 compliance using a continuous emission monitor that meets the requirements of Rule .1404(d) of this Section. Internal
19 combustion engines shall comply with the monitoring requirements in Rule .1423 of this Section. Monitors shall be
20 installed before the first ozone season in which the source will operate and shall be operated each day during the ozone
21 season that the source operates.

22
23 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (7), (10);*
24 *Temporary Adoption Eff. August 1, 2001; November 1, 2000;*
25 *Eff. July 18, 2002;*
26 *Amended Eff. June 1, 2004;*
27 *Temporary Amendment Eff. December 31, 2008(this amendment replaces the amendment approved*
28 *by RRC on May 15, 2008);*
29 *Amended Eff. September 29, 2009(amendment approved by RRC on May 15, 2008).*
30
31

15A NCAC 02D .1423 is proposed for readoption without substantive changes as follows:

15A NCAC 02D .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 15A NCAC 02D .1418~~ but are not subject to ~~Rules .0530 (prevention of significant deterioration) or .0531 (nonattainment area major new source review) of this Subchapter. 15A NCAC 02D .0530 or .0531.~~

- (1) rich burn stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal to 2,400 brake horsepower;
- (2) lean burn stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal to 2,400 brake horsepower;
- (3) diesel stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal to 3,000 brake horsepower; or
- (4) dual fuel stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal to 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 in parts per million by volume 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) _____

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

~~—(Engine output)*(100)~~

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Commented [NBW157]: Rule format revision

Commented [NBW158]: Grammar revision

Commented [NBW159]: This unit is associated with the NOx concentration and not the O2 correction.

$$E = \frac{\text{Energy input}}{\text{Energy input}}$$

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 40 CFR part 60, Appendices B and F of 40 CFR part 60, F excluding data obtained during periods specified in Paragraph (g) of this Rule and Rule .1404 of this Section; 15A NCAC 02D .1404; 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~~ shall 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 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;

Commented [NBW160]: Rule format revision

Commented [NBW161]: Comment from drbraswell Elsewhere in .1400, we tie CEMS with 40 CFR Part 75, Subpart H. Why is it different here?

Commented [NBW162]: Rule format revision

Commented [NBW163]: Comment from drbraswell "during the ozone season"

Commented [NBW164]: Comment from drbraswell If the above reference to CEMs Part 60 changes, this will change as well.

Commented [NBW165]: Spelling correction

Commented [NBW166]: Comment from drbraswell .1404 contains different recordkeeping and longer retention requirements.

This paragraph should either have some exception (e.g. instead of the recordkeeping requirements in .1404...) or the recordkeeping requirements can be synchronized with .1404 like the other rules in this condition.

Commented [KP167R166]: Followup

- 1 (4) date and results of each emissions inspection;
2 (5) a summary of any emissions corrective maintenance taken;
3 (6) the results of all compliance tests; and
4 (7) if a unit is equipped with a continuous emission monitoring system:
5 (A) identification of time periods during which nitrogen oxide standards are exceeded, the
6 reason for the excess emissions, and action taken to correct the excess emissions and to
7 prevent similar future excess emissions; and
8 (B) identification of the time periods for which operating conditions and pollutant data were
9 not obtained including reasons for not obtaining sufficient data and a description of
10 corrective actions taken.
- 11 (g) Exemptions. The emission standards of this Rule shall not apply to the following periods of operation:
12 (1) start-up and shut-down periods and periods of malfunction, not to exceed 36 consecutive hours;
13 (2) regularly scheduled maintenance activities.

14
15 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
16 *Temporary Adoption Eff. August 1, 2001;*
17 *Eff. July 18, 2002.*
18
19
20