

1 15A NCAC 02D .0403 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0403 TOTAL SUSPENDED PARTICULATES**

4 (a) The ambient air quality standards for total suspended particulate matter are:

5 (1) 75 micrograms per cubic meter annual geometric ~~mean, mean; and~~

6 (2) 150 micrograms per cubic meter maximum 24-hour concentration not to be exceeded more than
7 once per year.

8 (b) Sampling and analysis shall be in accordance with procedures in ~~Appendix B of 40 C.F.R. Part 50~~ 40 CFR Part
9 50, Appendix B or equivalent methods established ~~under~~ pursuant to 40 CFR Part 53.

10

11 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3);*

12 *Eff. February 1, 1976;*

13 *Amended Eff. July 1, 1988; July 1, 1984; October 15, ~~1984~~ 1981;*

14 *Readopted Eff_____.*

15

1 15A NCAC 02D .0501 is proposed for readoption without substantive changes as follows:

2
3 **SECTION .0500 - EMISSION CONTROL STANDARDS**

4
5 **15A NCAC 02D .0501 COMPLIANCE WITH EMISSION CONTROL STANDARDS**

6 (a) Purpose and Scope. The purpose of this Rule is to assure orderly compliance with emission control standards
7 found in this Section. This Rule shall apply to all air pollution sources, both combustion and non-combustion.

8 (b) All new sources shall be in compliance prior to beginning operations.

9 (c) In addition to any control or manner of operation necessary to meet emission standards in this Section, any source
10 of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air
11 quality standards of ~~Section .0400 of this Subchapter pursuant to 15A NCAC 02D .0400~~ to be exceeded at any point
12 beyond the premises on which the source is located. When controls are more stringent than those named in the
13 applicable emission standards in this Section are required to prevent violation of the ambient air quality standards or
14 are required to create an offset, the permit shall contain a condition requiring these controls.

15 (d) The Bubble Concept. A facility with multiple emission sources or multiple facilities within the same area may
16 choose to meet the total emission limitation for a given pollutant through a different mix of controls than ~~that those~~
17 required by the rules ~~in this Section or Section .0900 of this Subchapter.~~ pursuant to 15A NCAC 02D .0900.

18 (1) In order for this mix of alternative controls to be ~~permitted~~ permitted, the Director shall determine
19 that the following conditions are met:

20 (A) Sources pursuant to which Rules 15A NCAC 02D .0524, .0530, .0531, .1110 or ~~1111~~ of
21 this Subchapter, 1111, the federal New Source Performance Standards (NSPS), the federal
22 National Emission Standards for Hazardous Air Pollutants ~~(NESHAPS)~~, (NESHAP),
23 regulations established pursuant to Section ~~111(d)~~ 111(d) of the federal Clean Air Act, or
24 state or federal Prevention of Significant Deterioration (PSD) requirements apply, shall
25 have emissions no larger than if there were not an alternative mix of controls;

26 (B) The facility ~~(or facilities)~~ or facilities is located in an attainment area or an unclassified
27 area or in an area that has been demonstrated to be attainment by the statutory deadlines
28 ~~(with reasonable further progress toward attainment)~~ with reasonable further progress
29 toward attainment for those pollutants being considered;

30 (C) All of the emission sources affected by the alternative mix are in compliance with
31 applicable regulations or are in compliance with established compliance agreements; and

32 (D) The review of an application for the proposed mix of alternative controls and the
33 enforcement of any resulting permit will not require expenditures on the part of the State
34 in excess of five times that which would otherwise be required.

35 (2) The ~~owners(s)~~ owners or ~~operators(s)~~ operators of the facility ~~(facilities)~~ or facilities shall
36 demonstrate ~~to the satisfaction of the Director that~~ the alternative mix of controls is equivalent in

1 total allowed emissions, reliability, enforceability, and environmental impact to the aggregate of the
2 otherwise applicable individual emission standards; and

- 3 (A) that the alternative mix approach does not interfere with the attainment and maintenance
4 of the ambient air quality standards and does not interfere with the PSD ~~program;~~program,
5 which this demonstration shall include modeled calculations of the amount, if any, of PSD
6 increment consumed or created;
- 7 (B) that the alternative mix approach conforms with reasonable further progress requirements
8 in any nonattainment area;
- 9 (C) that the emissions ~~under-pursuant to~~ the alternative mix approach are in fact quantifiable,
10 and trades among them are ~~even;~~equivalent; and
- 11 (D) that the pollutants controlled ~~under-pursuant to~~ the alternative mix approach are of the same
12 criteria pollutant categories, except that emissions of some criteria pollutants used in
13 alternative emission control strategies are subject to the limitations as defined in 44 FR
14 71784 (December 11, 1979), Subdivision D.1.c.ii. The Federal Register referenced in this
15 Part is hereby incorporated by reference and does not include subsequent amendments or
16 editions.

17 The demonstrations of equivalence shall be performed with at least the same level of detail as The
18 North Carolina State Implementation Plan for Air Quality demonstration of attainment for the area
19 in question. Moreover, if the facility involves another facility in the alternative strategy, it shall
20 complete a modeling demonstration to ensure that air quality is protected. Demonstrations of
21 equivalency shall also take into account differences in the level of reliability of the control measures
22 or other uncertainties.

- 23 (3) The emission rate limitations or control techniques of each source within the facility ~~or (facilities)~~
24 facilities subjected to the alternative mix of controls shall be specified in the facility's ~~(facilities')~~
25 ~~permits(s); permit or facilities' permits.~~
- 26 (4) Compliance schedules and enforcement actions shall not be affected because an application for an
27 alternative mix of controls is being prepared or is being reviewed.
- 28 (5) The Director may waive or reduce requirements in this Paragraph up to the extent allowed by the
29 Emissions Trading Policy Statement published in the Federal Register of April 7, 1982, pages
30 15076-15086, provided that the analysis required by Paragraph (e) of this Rule supports any waiver
31 or reduction of requirements. The Federal Register referenced in this ~~Paragraph-Subparagraph~~ is
32 hereby incorporated by reference and does not include subsequent amendments or editions.

33 (e) In a permit application for an alternative mix of controls ~~under-pursuant to~~ Paragraph (d) of this Rule, the owner
34 or operator of the facility shall demonstrate ~~to the satisfaction of the Director that~~ the proposal is equivalent to the
35 existing requirements of the SIP in total allowed emissions, enforceability, reliability, and environmental impact. The
36 Director shall provide for public notice with an opportunity for a request for public hearing following the procedures
37 ~~under-pursuant to~~ 15A NCAC 02Q .0300 or .0500, as applicable.

1 (1) ~~If and when~~ a permit containing these conditions is issued ~~under~~ pursuant to 15A NCAC 02Q .0300
2 (non-Title V permits), it shall become a part of the state implementation plan (SIP) as an appendix
3 available for inspection at the department's regional offices. Until the U.S. Environmental Protection
4 Agency (EPA) approves the SIP revision embodying the permit containing an alternative mix of
5 controls, the facility shall continue to meet the otherwise applicable existing SIP requirements.

6 (2) ~~If and when~~ a permit containing these conditions is issued ~~under~~ pursuant to 15A NCAC 02Q .0500
7 (~~Title V permits~~), it shall be available for inspection at the department's regional offices. Until the
8 EPA approves the Title V permit containing an alternative mix of controls, the facility shall continue
9 to meet the otherwise applicable existing SIP requirements.

10 The revision shall be submitted for approved approval by the EPA on the basis of the revision's consistency with
11 EPA's "Policy for Alternative Emission Reduction Options Within State Implementation Plans" as promulgated in the
12 Federal Register of December 11, 1989, pages 71780-71788, and subsequent rulings.

13 ~~If owner or operator of any combustion and non-combustion source or control equipment subject to the requirements~~
14 ~~of this Section is required to demonstrate compliance with a rule in this Section, the source testing procedures of~~
15 ~~Section .2600 of this Subchapter shall be used.~~

16 (f) If owner or operator of any combustion and non-combustion source or control equipment subject to the
17 requirements of this Section is required to demonstrate compliance with a rule in this Section, the source testing
18 procedures pursuant to 15A NCAC 02D .2600 shall be used.

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20 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

21 *Eff. February 1, 1976;*

22 *Amended Eff. August 1, 1991; October 1, 1989;*

23 *Temporary Amendment Eff. March 8, 1994 for a period of 180 days or until the permanent rule is*
24 *effective, whichever is sooner;*

25 *Amended Eff. June 1, 2008; April 1, 2001; April 1, 1999; July 1, 1996; February 1, 1995; July 1,*
26 *1994-1994;*

27 *Readopted Eff. _____.*

1 15A NCAC 02D .0502 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .0502 PURPOSE**

4 The purpose of the emission control standards set out in this Section is to establish maximum limits on the rate of
5 emission of air contaminants into the atmosphere. All sources shall be provided with the maximum feasible control.

6

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

8

Eff. February 1, 1976;

9

Amended Eff. June 1, ~~1981~~, 1981;

10

Readopted Eff

11

1 15A NCAC 02D .0503 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .0503 PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**

4 (a) For the purpose of this ~~Rule~~ Rule, the following definitions shall apply:

- 5 (1) "Functionally dependent" means that structures, buildings or equipment are interconnected through
6 common process streams, supply lines, flues, or stacks.
7 (2) "Indirect heat exchanger" means any equipment used for the alteration of the temperature of one
8 fluid by the use of another fluid in which the two fluids are separated by an impervious surface such
9 that there is no mixing of the two fluids.
10 (3) "Plant site" means any single or collection of structures, buildings, facilities, equipment,
11 installations, or operations which:
12 (A) are located on one or more adjacent properties,
13 (B) are ~~under~~ in common legal control, and
14 (C) are functionally dependent in their operations.

15 (b) The definition contained in Subparagraph (a)(3) of this Rule does not affect the calculation of the allowable
16 emission rate of any indirect heat exchanger permitted prior to April 1, 1999.

17 (c) ~~With the exceptions in Rule .0536 of this Section,~~ The emissions of particulate matter from the combustion of a
18 fuel that are discharged from any stack or chimney into the atmosphere shall not exceed:

19
20

21 Maximum Heat Input In 22 Million Btu/Hour	23	24 Allowable Emission Limit 25 For Particulate Matter 26 In Lb/Million Btu
27 Up to and Including 10	28	0.60
100		0.33
1,000		0.18
10,000 and Greater		0.10

28

29 For a heat input between any two consecutive heat inputs stated in the preceding table, the allowable emissions of
30 particulate matter shall be calculated by the equation ~~$E = 1.090 \text{ times } Q \text{ to the } -0.2594 \text{ power.}$~~ $E = 1.090 * Q^{-0.2594}$. E =
31 "E" equals the allowable emission limit for particulate matter in lb/million Btu. Q = "Q" equals the maximum heat
32 input in million Btu/hour.

33 (d) This Rule applies to installations in which fuel is burned for the purpose of producing heat or power by indirect
34 heat transfer. Fuels include those such as coal, coke, lignite, peat, natural gas, and fuel oils, but exclude wood and
35 refuse not burned as a fuel. When any refuse, products, or by-products of a manufacturing process are burned as a
36 fuel rather than refuse, or in conjunction with any fuel, this allowable emission limit shall apply.

37 (e) For the purpose of this Rule, the maximum heat input shall be the total heat content of all fuels which are burned
38 in a fuel burning indirect heat exchanger, of which the combustion products are emitted through a stack or stacks. The
39 sum of maximum heat input of all fuel burning indirect heat exchangers at a plant site which are in operation, under
40 construction, or permitted pursuant to ~~15A NCAC 2Q,~~ 15A NCAC 02D 02Q, shall be considered as the total heat
41 input for the purpose of determining the allowable emission limit for particulate matter for each fuel burning indirect

1 heat exchanger. Fuel burning indirect heat exchangers constructed or permitted after February 1, 1983, shall not
2 change the allowable emission limit of any fuel burning indirect heat exchanger whose allowable emission limit has
3 previously been set. The removal of a fuel burning indirect heat exchanger shall not change the allowable emission
4 limit of any fuel burning indirect heat exchanger whose allowable emission limit has previously been established.
5 However, for any fuel burning indirect heat exchanger constructed after, or in conjunction with, the removal of another
6 fuel burning indirect heat exchanger at the plant site, the maximum heat input of the removed fuel burning indirect
7 heat exchanger shall no longer be considered in the determination of the allowable emission limit of any fuel burning
8 indirect heat exchanger constructed after or in conjunction with the removal. For the purposes of this Paragraph,
9 refuse not burned as a fuel and wood shall not be considered a fuel. For residential facilities or ~~institutions (such~~
10 ~~institutions, such~~ as military and ~~educational)~~educational, whose primary fuel burning capacity is for comfort heat,
11 only those fuel burning indirect heat exchangers located in the same power plant or building or otherwise physically
12 ~~interconnected (such interconnected, such~~ as common flues, steam, or power distribution ~~line) line~~, shall be used to
13 determine the total heat input.

14 (f) The emission limit for fuel burning equipment that burns both wood and other fuels in combination, or for wood
15 and other fuel burning equipment that is operated such that emissions are measured on a combined basis, shall be
16 calculated by the equation $E_c = [(E_w)(Q_w) + (E_o)(Q_o)] / Q_t$.

- 17 (1) E_c = the emission limit for combination or combined emission source(s) in lb/million Btu.
18 (2) E_w = plant site emission limit for wood only as determined by ~~Rule .0504 of this Section pursuant~~
19 ~~to 15A NCAC 02D .0504~~ in lb/million Btu.
20 (3) E_o = the plant site emission limit for other fuels only as determined by Paragraphs (a), (b) and (c)
21 of this Rule in lb/million Btu.
22 (4) Q_w = the actual wood heat input to the combination or combined emission source(s) in Btu/hr.
23 (5) Q_o = the actual other fuels heat input to the combination or combined emission source(s) in Btu/hr.
24 (6) Q_t = $Q_w + Q_o$ and is the actual total heat input to combination or combined emission source(s) in
25 Btu/hr.

26
27 *History Note: Filed as a Temporary Amendment Eff. March 8, 1994 for a period of 180 days or until the*
28 *permanent rule is effective, whichever is sooner;*
29 *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
30 *Eff. February 1, 1976;*
31 *Amended Eff. April 1, 1999; July 1, 1994; August 1, 1991; June 1, 1985; February 1, 1983-1983;*
32 *Readopted Eff _____.*
33

1 February 1, 1983, shall not change the allowable emission limit of any wood burning indirect heat exchanger whose
2 allowable emission limit has previously been set. The removal of a wood burning indirect heat exchanger shall not
3 change the allowable emission limit of any wood burning indirect heat exchanger subject to this Rule whose allowable
4 emission limit has previously been established. However, for any wood burning indirect heat exchanger subject to this
5 rule constructed after, or in conjunction with, the removal of another wood burning indirect heat exchanger at the plant
6 site, the maximum heat input of the removed wood burning indirect heat exchanger shall no longer be considered in
7 the determination of the allowable emission limit of any wood burning indirect heat exchanger subject to this rule
8 constructed after or in conjunction with the removal. For facilities or institutions, such as military and educational,
9 whose primary wood burning capacity is for comfort heat, only those wood burning indirect heat exchangers subject
10 to this Rule located in the same power plant or building or otherwise physically interconnected, such as common flues,
11 steam, or power distribution line shall be used to determine the total heat input.

12 ~~(f) The emission limit for fuel burning equipment that burns both wood and other fuels in combination or for wood~~
13 ~~and other fuel burning equipment that is operated such that emissions are measured on a combination basis shall be~~
14 ~~calculated by the procedure described in Paragraph (f) of Rule .0503 of this Section.~~

15
16 *History Note: Authority G.S. 143-213; 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(h)(1);*
17 *Eff. February 1, 1976;*
18 *Amended Eff. August 1, 2002; April 1, 1999; June 1, 1985; February 1, ~~1983-1983~~;*
19 *Readopted Eff.*

1 15A NCAC 02D .0506 is proposed for reoption without substantive changes as follows:

2
3 **15A NCAC 02D .0506 PARTICULATES FROM HOT MIX ASPHALT PLANTS**

4 (a) The allowable emission rate for particulate matter resulting from the operation of a hot mix asphalt plant that are
5 discharged from any stack or chimney into the atmosphere shall not exceed the level calculated with the equation $E =$
6 $4.9445(P)^{0.4376}$ calculated to three significant figures, for process rates less than 300 tons per hour, where "E" equals
7 the maximum allowable emission rate for particulate matter in pounds per hour and "P" equals the process rate in tons
8 per hour. The allowable emission rate shall be 60.0 pounds per hour for process rates equal to or greater than 300 tons
9 per hour.

10 (b) Visible emissions from stacks or vents at a hot mix asphalt plant shall ~~be less than~~ not exceed 20 percent opacity
11 when averaged over a six-minute period.

12 (c) All hot mix asphalt batch plants shall be equipped with a scavenger process dust control system for the drying,
13 conveying, classifying, and mixing equipment. The scavenger process dust control system shall exhaust through a
14 stack or vent and shall be operated and maintained in such a manner as to comply with Paragraphs (a) and (b) of this
15 Rule.

16 (d) Fugitive non-process dust emissions shall be controlled by ~~Rule .0540 of this Section.~~ 15A NCAC 02D .0540.

17 (e) Fugitive emissions for sources at a hot mix asphalt plant not covered elsewhere ~~under~~ by this Rule ~~and~~ shall not
18 exceed 20 percent opacity averaged over six minutes.

19 ~~(f) Any asphalt batch plant that was subject to the 40 percent opacity standard before August 1, 2004 shall be in~~
20 ~~compliance with the 20 percent opacity standard by January 1, 2005.~~

21
22 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

23 *Eff. February 1, 1976;*

24 *Amended Eff. August 1, 2004; July 1, 1998; January 1, ~~1985-1985~~;*

25 *Readopted Eff.*

1 15A NCAC 02D .0507 is proposed for reoption without substantive changes as follows:

2

3 **15A NCAC 02D .0507 PARTICULATES FROM CHEMICAL FERTILIZER MANUFACTURING**
4 **PLANTS**

5 The allowable emissions rate for particulate matter resulting from the manufacture, mixing, handling, or other
6 operations in the production of chemical fertilizer materials that are discharged from any stack or chimney into the
7 atmosphere shall not exceed the level calculated with the equation $E = 9.377(P)^{0.3067}$ calculated to three significant
8 figures, where "E" equals the maximum allowable emission rate for particulate matter in pounds per hour and "P"
9 equals the process rate ~~(the as the sum of the production rate and the recycle rate)~~rate in tons per hour.

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11 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

12 *Eff. February 1, 1976;*

13 *Amended Eff. April 1, 2003; July 1, 1998; January 1, ~~1985-1985~~;*

14 *Readopted Eff. _____.*

15

1 15A NCAC 02D .0508 is proposed for reoption without any changes as follows:

2

3 **15A NCAC 02D .0508 PARTICULATES FROM PULP AND PAPER MILLS**

4 (a) Emissions of particulate matter from the production of pulp and paper that are discharged from any stack or
5 chimney into the atmosphere shall not exceed:

- 6 (1) 3.0 pounds per equivalent ton of air dried pulp from a recovery furnace stack;
- 7 (2) 0.6 pounds per equivalent ton of air dried pulp from a dissolving tank vent; and
- 8 (3) 0.5 pounds per equivalent ton of air dried pulp from a lime kiln stack.

9 (b) Emissions from any kraft pulp recovery boiler established after July 1, 1971, shall not exceed an opacity of 35
10 percent when averaged over a six-minute period. However, six-minute averaging periods may exceed 35 percent
11 opacity if:

- 12 (1) no six-minute period exceeds 89 percent opacity;
- 13 (2) no more than one six-minute period exceeds 35 percent opacity in any one hour; and
- 14 (3) no more than four six-minute periods exceed 35 percent opacity in any 24-hour period.

15 Where the presence of uncombined water vapor is the only reason for failure to meet this opacity limitation, this
16 opacity limitation shall not apply.

17

18 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

19 *Eff. February 1, 1976;*

20 *Amended Eff. July 1, 1998; August 1, 1987; April 1, 1986; January 1, 1985; May 30, ~~1978~~1978;*

21 *Readopted Eff. _____.*

22

1 15A NCAC 02D .0509 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0509 PARTICULATES FROM MICA OR FELDSPAR PROCESSING PLANTS**

4 (a) The allowable emission rate for particulate matter resulting from the processing of mica or feldspar that are
5 discharged from any chimney, stack, vent, or outlet into the atmosphere shall not exceed the level calculated with the
6 equation $E = 4(P)^{0.677}$ calculated to three significant figures for process rates less than or equal to 30 tons per hour.
7 For process rates greater than 30 tons per hour but less than 1,000 tons per hour, the allowable emission rate for
8 particulate matter shall not exceed the level calculated with the equation $E = 20.421(P)^{0.1977}$ calculated to three
9 significant figures. For process rates greater than or equal to 1,000 tons per hour but less than 3,000 tons per hour,
10 the allowable emission rate for particulate matter shall not exceed the level calculated with the equation $E =$
11 $38.147(P)^{0.1072}$ calculated to three significant figures. The allowable emission rate shall be 90.0 pounds per hour for
12 process weight rates equal to or greater than 3,000 tons per hour. For the purpose of these equations, "E" equals the
13 maximum allowable emission rate for particulate matter in pounds per hour and "P" equals the process weight rate in
14 tons per hour.

15 (b) Fugitive non-process dust emissions shall ~~be controlled by Rule .0540 of this Section.~~ meet the requirements of
16 15A NCAC 02D .0540.

17 (c) The owner or operator of any mica or feldspar plant shall control process-generated emissions:

- 18 (1) from crushers with wet suppression, and
19 (2) from conveyors, screens, and transfer points,

20 such that the applicable opacity standards in ~~Rule .0521 or .0524, of this Section.~~ 15A NCAC 02D .0521 or .0524 are
21 not exceeded.

22
23 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

24 *Eff. February 1, 1976;*

25 *Amended Eff. April 1, 2003; July 1, 1998; April 1, 1986; January 1, ~~1985-1985~~;*

26 *Readopted Eff*
27

1 15A NCAC 02D .0510 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .0510 PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE**
4 **OPERATIONS**

5 (a) The owner or operator of a sand, gravel, or crushed stone operation shall not cause, allow, or permit any material
6 to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate
7 matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for
8 particulate matter, both PM10 and total suspended particulates.

9 (b) Fugitive non-process dust emissions from sand, gravel, or crushed stone operations shall be controlled by ~~Rule~~
10 ~~.0540 of this Section.~~ 15A NCAC 02D .0540.

11 (c) The owner or operator of any sand, gravel, or crushed stone operation shall control process-generated emissions:

12 (1) from crushers with wet suppression, and

13 (2) from conveyors, screens, and transfer points,

14 such that the applicable opacity standards in ~~Rule .0521 or .0524, of this Section~~ 15A NCAC 02D .0521 or .0524 are
15 not exceeded.

16

17 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

18 *Eff. February 1, 1976;*

19 *Amended Eff. July 1, 1998; January 1, ~~1985-1985~~;*

20 *Readopted*

1 15A NCAC 02D .0511 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0511 PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES**

4 (a) The owner or operator of a lightweight aggregate process shall not cause, allow, or permit any material to be
5 produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter
6 from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM10 and total
7 suspended particulates, from being exceeded beyond the property line.

8 (b) Fugitive non-process dust emissions from lightweight aggregate processes subject to this Rule shall ~~be controlled~~
9 ~~by Rule .0540 of this Section.~~ meet the requirement of 15A NCAC 02D .0540.

10 (c) The owner or operator of any lightweight aggregate process shall control process-generated emissions:

11 (1) from crushers with wet ~~suppression,~~suppression; and

12 (2) from conveyors, screens, and transfer points,

13 such that the applicable opacity standards in ~~Rule .0521 or .0524, of this Section~~ 15A NCAC 02D .0521 or .0524 are
14 not exceeded.

15 (d) Particulate matter from any stack serving any lightweight aggregate kiln or lightweight aggregate dryer shall be
16 reduced by at least 95 percent by weight before being discharged to the atmosphere. ~~The 95 percent reduction shall~~
17 ~~be by air pollution control devices.~~

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19 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

20 *Eff. February 1, 1976;*

21 *Amended Eff. July 1, 1998; October 1, 1989; January 1, 1985; April 1, ~~1977.~~1977;*

22 *Readopted Eff _____.*

23

1 15A NCAC 02D .0512 is proposed for readoption without any changes as follows:

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3 **15A NCAC 02D .0512 PARTICULATES FROM WOOD PRODUCTS FINISHING PLANTS**

4 A person shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to
5 be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its collection,
6 adequate duct work and properly designed collectors, or such other devices as approved by the Commission, and in
7 no case shall the ambient air quality standards be exceeded beyond the property line. Collection efficiency shall be
8 determined on the basis of weight.

9

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

11 *Eff. February 1, 1976;*

12 *Amended Eff. January 1, ~~1985-1985~~;*

13 *Readopted Eff _____.*

14

1 15A NCAC 02D .0513 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .0513 PARTICULATES FROM PORTLAND CEMENT PLANTS**

4 (a) Particulate matter from any Portland cement kiln shall:

5 (1) be reduced by at least 99.7 percent by weight before being discharged to the atmosphere; ~~the 99.7-~~
6 ~~percent reduction shall be by air pollution control devices;~~ and

7 (2) not exceed 0.327 pounds per barrel.

8 (b) The emissions of particulate matter from any stacks, vent or outlets from all processes except Portland cement
9 kilns shall be controlled by ~~Rule .0515 of this Section,~~ pursuant to 15A NCAC 02D .0515

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11 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

12 *Eff. February 1, 1976;*

13 *Amended Eff. July 1, 1998; January 1, ~~1985-1985;~~*

14 *Readopted Eff _____.*

15

1 15A NCAC 02D .0514 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .0514 PARTICULATES FROM FERROUS JOBBING FOUNDRIES**

4 Particulate emissions from any ferrous jobbing foundry cupola existing before January 2, 1972 shall not exceed:

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Process Weight In Lb/Hr lb/hr	Maximum Allowable Emission Rate For Particulate In Lb/Hr lb/hr
1,000	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.65
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	23.40
20,000	25.10

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Any foundry existing before January 2, 1972, having a capacity greater than shown in the table and any new foundry, regardless of size, shall comply with the particulate emission limits ~~specified in Paragraph (a) of Rule .0515 of this Section.~~ pursuant to 15A NCAC 02D .0515(a).

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. February 1, 1976;
Amended Eff. July 1, 1998; April 1, 1986; January 1, ~~1985-1985~~;
Readopted Eff.*

1 15A NCAC 02D.0515 is proposed for re adoption without any changes as follows:

2

3 **15A NCAC 02D.0515 PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

4 (a) The allowable emission rates for particulate matter from any stack, vent, or outlet, resulting from any industrial
5 process for which no other emission control standards are applicable, shall not exceed the level calculated with the
6 equation $E = 4.10(P)^{0.67}$ calculated to three significant figures for process rates less than or equal to 30 tons per hour.
7 For process rates greater than 30 tons per hour, the allowable emission rates for particulate matter shall not exceed the
8 level calculated with the equation $E = 55.0(P)^{0.11} - 40$ calculated to three significant figures. For the purpose of these
9 equations "E" equals the maximum allowable emission rate for particulate matter in pounds per hour and "P" equals
10 the process rate in tons per hour.

11 (b) Process rate means the total weight of all materials introduced into any specific process that may cause any
12 emission of particulate matter. Solid fuels charged are considered as part of the process weight, but liquid and gaseous
13 fuels and combustion air are not. For a cyclical or batch operation, the process rate is derived by dividing the total
14 process weight by the number of hours in one complete operation from the beginning of any given process to the
15 completion thereof, excluding any time during which the equipment is idle. For a continuous operation, the process
16 rate is derived by dividing the process weight for a typical period of time by the number of hours in that typical period
17 of time.

18

19 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

20 *Eff. February 1, 1976;*

21 *Amended Eff. April 1, 2003; July 1, 1998; January 1, 1985; December 1, ~~1976-1976~~;*

22 *Readopted*

23

1 15A NCAC 02D .0516 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0516 SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

4 (a) Emission of sulfur dioxide from any source of combustion ~~that is~~ discharged from any vent, stack, or chimney
5 shall not exceed 2.3 pounds of sulfur dioxide per million BTU input. Sulfur dioxide formed by the combustion of
6 sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.
7 Sulfur dioxide formed or reduced as a result of treating flue gases with sulfur trioxide or other materials shall also be
8 accounted for when determining compliance with this standard.

9 ~~(b) A source subject to an emission standard for sulfur dioxide in Rules .0524, .0527, .1110, .1111, .1205, .1206,~~
10 ~~.1210, or .1211 of this Subchapter shall meet the standard in that particular rule instead of the standard in Paragraph~~
11 ~~(a) of this Rule. The standard set forth in Paragraph (a) of this Rule shall not apply to sulfur dioxide emission sources~~
12 ~~already subject to an emission standard in 15A NCAC 02D .0524, .0527, .1110, .1111, .1206, or .1210.~~

13

14 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

15 *Eff. February 1, 1976;*

16 *Amended Eff. July 1, 2007; April 1, 2003; July 1, 1996; February 1, 1995; October 1, 1989; January*
17 *1, 1985; April 1, ~~1977, 1977;~~*

18 *Readopted Eff. _____.*

19

20

1 15A NCAC 02D .0517 is proposed for reoption without substantive changes as follows:

2

3 **15A NCAC 02D .0517 EMISSIONS FROM PLANTS PRODUCING SULFURIC ACID**

4 Emissions of sulfur dioxide or sulfuric acid mist from the manufacture of sulfuric acid shall not exceed:

5 (1) 27 pounds of sulfur dioxide per ton of sulfuric acid produced; and

6 (2) 0.5 pounds of acid ~~mist (expressed as sulfuric acid)~~ mist, expressed as sulfuric acid, per ton of
7 sulfuric acid produced.

8

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

10 *Eff. February 1, 1976;*

11 *Amended Eff. January 1, 1985.*

12 *Readopted Eff. _____.*

13

14

1 15A NCAC 02D .0519 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0519 CONTROL OF NITROGEN DIOXIDE AND NITROGEN OXIDES EMISSIONS**

4 (a) The emissions of nitrogen dioxide shall not exceed 5.8 pounds per ton of acid produced from any ~~sulfuric~~ nitric
5 acid manufacturing plant.

6 (b) The emissions of nitrogen oxides shall not exceed:

7 (1) 0.8 pounds per million BTU of heat input from any oil or gas-fired boiler with a capacity of 250
8 million BTU per hour or more; or

9 (2) 1.8 pounds per million BTU of heat input from any coal-fired boiler with a capacity of 250 million
10 BTU per hour or more.

11 (c) The emission limit for a boiler ~~that burns both coal and oil or gas~~ burning coal, oil, or gas in combination shall be
12 calculated by the ~~equation~~ $E = [(E_c)(Q_c) + (E_o)(Q_o)] / Q_t$. equation:

13
$$E = \frac{(E_c * Q_c) + (E_o * Q_o)}{Q_t}$$

14 (1) E = the emission limit for combination in pounds per million BTU.

15 (2) E_c = emission limit for coal only as determined by Paragraph (b) of this Rule in pounds per million
16 BTU.

17 (3) E_o = emission limit for oil or gas as determined by Paragraph (b) of this Rule in pounds per million
18 BTU.

19 (4) Q_c = the actual coal heat input to the combination in BTU per hour.

20 (5) Q_o = the actual oil and gas heat input to the combination in BTU per hour.

21 (6) Q_t = Q_c + Q_o and is the actual total heat input to the combination in BTU per hour.

22 (d) ~~If a boiler is~~ subject to an emission standard for nitrogen oxides ~~under~~ pursuant to Rule 15A NCAC 02D .0524
23 ~~(New Source Performance Standards) or .1418 (New Generating Units, Large Boilers, and Large I/C Engines) of this~~
24 ~~Subchapter, 15A NCAC 02D .1418, then the boiler shall meet the standard in that particular rule instead of the standard~~
25 ~~in Paragraph (a)(b) of this Rule.~~

26
27 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

28 *Eff. February 1, 1976;*

29 *Amended Eff. July 1, 2007; January 1, 2005; July 1, 1996; October 1, 1989; January 1, ~~1985-1985~~;*

30 *Readopted Eff. _____.*

1 15A NCAC 02D .0521 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0521 CONTROL OF VISIBLE EMISSIONS**

4 (a) Purpose. The intent of this Rule is to prevent, abate and control emissions generated from fuel burning operations
5 and industrial processes where an emission can reasonably be expected to occur, except during ~~startup, startups,~~
6 shutdowns, and malfunctions approved according to procedures ~~set out in Rule .0535 of this Section.~~ 15A NCAC 02D
7 .0535.

8 (b) Scope. This Rule shall apply to all fuel burning sources and to other industrial processes ~~that may have~~ having a
9 visible ~~emission.~~ emission. Sources subject to a specific visible emission standard in ~~Rules~~ 15A NCAC 02D
10 .0506, .0508, .0524, .0543, .0544, .1110, .1111, .1205, .1206, or .1210, .1210, .1211, or .1212 of this Subchapter shall
11 meet that standard instead of the standard contained in this Rule. This Rule does not apply to engine maintenance,
12 rebuild, and testing activities where controls are infeasible, ~~except~~ but it does apply to the testing of peak shaving and
13 emergency generators. ~~(In In deciding if controls are infeasible, the Director shall consider emissions, capital cost of~~
14 ~~compliance, annual incremental compliance cost, and environmental and health impacts.)~~ impacts.

15 (c) For sources manufactured as of July 1, 1971, visible emissions shall not be more than 40 percent opacity when
16 averaged over a six-minute period. However, except for sources required to comply with Paragraph (g) of this Rule,
17 six-minute averaging periods may exceed 40 percent opacity if:

- 18 (1) No six-minute period exceeds 90 percent opacity;
19 (2) No more than one six-minute period exceeds 40 percent opacity in any hour; and
20 (3) No more than four six-minute periods exceed 40 percent opacity in any 24-hour period.

21 (d) For sources manufactured after July 1, 1971, visible emissions shall not be more than 20 percent opacity when
22 averaged over a six-minute period. ~~However, except~~ Except for sources required to comply with Paragraph (g) of this
23 Rule, six-minute averaging periods may exceed 20 percent opacity if:

- 24 (1) No six-minute period exceeds 87 percent opacity;
25 (2) No more than one six-minute period exceeds 20 percent opacity in any hour; and
26 (3) No more than four six-minute periods exceed 20 percent opacity in any 24-hour period.

27 (e) Where the presence of uncombined water ~~is the only reason for~~ contributes solely to the failure of an emission to
28 meet the limitations of Paragraph (c) or (d) of this Rule, those requirements shall not apply.

29 (f) Exception from Opacity Standard in Paragraph (d) of this Rule. Sources subject to Paragraph (d) of this Rule shall
30 be allowed to comply with Paragraph (c) of this Rule if:

- 31 (1) The owner or operator of the source demonstrates compliance with applicable particulate mass
32 emissions standards; and
33 (2) The owner or operator of the source submits data ~~necessary~~ to show that emissions up to those
34 allowed by Paragraph (c) of this Rule shall not violate any national ambient air quality standard.

35 The burden of proving these conditions shall be on the owner or operator of the source and shall be approached in the
36 following manner. The owner or operator of a source seeking an exception shall apply to the Director requesting this
37 modification in its permit. The applicant shall submit the results of a source test within 90 days of application. Source

1 testing shall be by the appropriate procedure as designated by rules in this Subchapter. During this 90-day period the
2 applicant shall submit data necessary to show that emissions up to those allowed by Paragraph (c) of this Rule will
3 not contravene ambient air quality standards. This evidence shall include an inventory of past and projected emissions
4 from the facility. In its review of ambient air quality, the Division may require additional information that it considers
5 necessary to assess the resulting ambient air quality. If the applicant can thus show that it will be in compliance both
6 with particulate mass emissions standards and ambient air quality standards, the Director shall modify the permit to
7 allow emissions up to those allowed by Paragraph (c) of this Rule.

8 (g) For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS), compliance
9 with the numerical opacity limits in this Rule shall be determined as follows excluding startups, shutdowns,
10 maintenance periods when fuel is not being combusted, and malfunctions approved as such according to procedures
11 approved under ~~Rule 15A NCAC 02D .0535~~ of this Section:

- 12 (1) No more than four six-minute periods shall exceed the opacity standard in any one day; and
- 13 (2) The percent of excess emissions (~~defined, defined~~ as the percentage of monitored operating time in
14 a calendar quarter above the opacity ~~limit~~ limit, shall not exceed 0.8 percent of the total operating
15 hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess
16 emissions shall be calculated by including hours operated immediately ~~previous~~ prior to this quarter
17 until 500 operational hours are obtained.

18 In no instance shall excess emissions exempted ~~under~~ pursuant to this Paragraph cause or contribute to a violation of
19 any emission standard in this Subchapter or 40 CFR Part 60, 61, or 63 or any ambient air quality standard in ~~Section~~
20 15A NCAC 02D .0400 or 40 CFR Part 50.

21
22 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
23 Eff. February 1, 1976;
24 Amended Eff. January 1, 2009; July 1, 2007; January 1, 2005; June 1, 2004; April 1, 2003; April
25 1, 2001; July 1, 1998; July 1, 1996; December 1, 1992; August 1, 1987; January 1, 1985; May 30,
26 1978-1978;
27 Readopted Eff. _____.
28
29

1 15A NCAC 02D .0524 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0524 NEW SOURCE PERFORMANCE STANDARDS**

4 (a) With the exception of Paragraph (b) and (c) of this Rule, sources subject to new source performance standards
5 promulgated in 40 CFR Part 60 shall comply with emission standards, monitoring and reporting requirements,
6 maintenance requirements, notification and record keeping requirements, performance test requirements, test method
7 and procedural provisions, and any other provisions, as required therein, rather than with any otherwise-applicable
8 rule in this Section which would be in conflict therewith.

9 (b) The following ~~is~~are not included ~~under~~pursuant to this Rule:

- 10 (1) 40 CFR Part 60, Subpart ~~AAA (new residential wood heaters);AAA;~~
11 (2) 40 CFR Part 60, Subpart ~~B (adoption and submittal of state plans for designated facilities);B;~~
12 (3) 40 CFR Part 60, Subpart ~~C (emission guidelines and compliance times);C;~~
13 (4) 40 CFR Part 60, Subpart ~~Cb (guidelines for municipal waste combustors constructed on or before~~
14 ~~September 20, 1994);Cb;~~
15 (5) 40 CFR Part 60, Subpart ~~Cc (guidelines for municipal solid waste landfills);Cc;~~
16 (6) 40 CFR Part 60, Subpart ~~Cd (guidelines for sulfuric acid production units);Cd;~~
17 (7) 40 CFR Part 60, Subpart ~~Ce (guidelines for hospital, medical, infectious waste incinerators);Ce;~~
18 (8) 40 CFR Part 60, Subpart ~~BBBB (guidelines for small municipal waste combustion units constructed~~
19 ~~on or before August 30, 1999);BBBB;~~
20 (9) 40 CFR Part 60, Subpart ~~DDDD (guidelines for commercial and industrial solid waste incinerators~~
21 ~~constructed on or before November 30, 1999);DDDD;~~
22 (10) 40 CFR Part 60, Subpart ~~FFFF (guidelines for other solid waste incinerators constructed on or before~~
23 ~~December 9, 2004);FFFF; or~~
24 (11) 40 CFR Part 60, Subpart ~~HHHH (guidelines for coal-fired electric steam generating units);HHHH.~~

25 (c) Along with the notice appearing in the North Carolina Register for a public hearing to amend this Rule to exclude
26 a standard from this Rule, the Director shall state whether or not the new source performance standards promulgated
27 under 40 CFR Part 60, or part thereof, shall be enforced. If the Environmental Management Commission does not
28 adopt the amendment to this Rule to exclude or amend the standard within 12 months after the close of the comment
29 period on the proposed amendment, the Director shall begin enforcing that standard when 12 months has elapsed after
30 the end of the comment period on the proposed amendment.

31 (d) New sources of volatile organic compounds that are located in an area designated in 40 CFR 81.334 as
32 nonattainment for ozone or an area identified in accordance with 15A NCAC 02D .0902 as being in violation of the
33 ambient air quality standard for ozone shall comply with the requirements of 40 CFR Part 60 ~~that~~ are not excluded by
34 this Rule, as well as with any applicable requirements in ~~Section .0900 of this Subchapter.~~ 15A NCAC 02D .0900.

35 (e) All requests, reports, applications, submittals, and other communications to the administrator required under
36 Paragraph (a) of this Rule shall be submitted to the Director ~~of the Division of Air Quality~~ rather than to the
37 Environmental Protection Agency.

1 (f) In the application of this Rule, definitions contained in 40 CFR Part 60 shall apply rather than those of Section
2 ~~.0100 of this Subchapter~~, in 15A NCAC 02D .0100.

3 (g) With the exceptions allowed ~~under~~ in 15A NCAC 02Q .0102, Activities Exempted from Permit Requirements,
4 the owner or operator of the source shall apply for and receive a permit as required in 15A NCAC 02Q .0300 or .0500.

5

6 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 150B-21.6;*

7 *Eff. June 18, 1976;*

8 *Temporary Amendment Eff. January 3, 1988, for a period of 180 days to expire on June 30, 1988;*

9 *Amended Eff. December 1, 1992; July 1, 1992;*

10 *Temporary Amendment Eff. March 8, 1994, for a period of 180 days or until the permanent rule is*
11 *effective, whichever is sooner;*

12 *Amended Eff. July 1, 2007; January 1, 2007; July 1, 2000; April 1, 1997; July 1, 1996; July 1,*

13 *~~1994-1994;~~*

14 *Readopted Eff. _____.*

15

16

1 15A NCAC 02D .0527 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0527 EMISSIONS FROM SPODUMENE ORE ROASTING**

4 Emission of sulfur dioxide and sulfuric acid mist from any one kiln used for the roasting of spodumene ore shall not
5 exceed:

6 (1) 9.7 pounds of sulfur dioxide per ton of ore ~~roasted.~~ roasted; and

7 (2) 1.0 pound of sulfuric acid mist, expressed as ~~H₂SO₄~~, H₂SO₄, per ton ~~or~~ of ore roasted.

8

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

10 *Eff. March 15, 1978;*

11 *Amended Eff. January 1, ~~1985~~, 1985;*

12 *Readopted Eff._____.*

13

1 15A NCAC 02D .0528 is proposed for reoption without substantive changes as follows:

2
3 **15A NCAC 02D .0528 TOTAL REDUCED SULFUR FROM KRAFT PULP MILLS**

4 (a) For the purpose of this Regulation, the following definitions apply:

- 5 (1) ~~"Total reduced sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide, methyl~~
6 ~~mercaptain, dimethyl sulfide, and dimethyl disulfide, that are released during the kraft pulping~~
7 ~~operation.~~
- 8 (2) ~~"Kraft pulp mill" means any facility that produces pulp from wood by cooking (digesting) wood~~
9 ~~chips in a water solution of sodium hydroxide and sodium sulfide (white liquor) at high temperature~~
10 ~~and pressure. Regeneration of cooking chemicals through a recovery process is also considered part~~
11 ~~of the kraft pulp mill.~~
- 12 (3) ~~"Recovery furnace" means either a straight kraft recovery furnace or a cross recovery furnace and~~
13 ~~includes the direct contact evaporator for a direct contact furnace.~~
- 14 (4) ~~"Cross recovery furnace" means a furnace used to recover chemicals consisting primarily of sodium~~
15 ~~and sulfur compounds by burning black liquor which on a quarterly basis contains more than seven~~
16 ~~percent by weight of the total pulp solids from the neutral sulfite semichemical process and has a~~
17 ~~green liquor sulfidity of more than 28 percent.~~
- 18 (5) ~~"Straight kraft recovery furnace" means a furnace used to recover chemicals consisting primarily of~~
19 ~~sodium and sulfur compounds by burning black liquor which on a quarterly basis contains seven~~
20 ~~percent by weight or less of the total pulp solids from the neutral sulfite semichemical process or~~
21 ~~has green liquor sulfidity of 28 percent or less.~~
- 22 (6) ~~"Old design recovery furnace" means a straight kraft recovery furnace that does not have membrane~~
23 ~~wall or welded wall construction or emission control designed air systems.~~
- 24 (7) ~~"New design recovery furnace" means a straight kraft recovery furnace that has both membrane wall~~
25 ~~or welded wall construction and emission control designed air systems.~~
- 26 (8) ~~"Neutral sulfite semichemical pulping operation" means any operation in which pulp is produced~~
27 ~~from wood by cooking (digesting) wood chips in a solution of sodium sulfite and sodium~~
28 ~~bicarbonate, followed by mechanical defibrating (grinding).~~
- 29 (9) ~~"Digester system" means each continuous digester or each batch digester used for the cooking of~~
30 ~~wood in white liquor, and associated flash tanks, blow tanks, chip steamers and condensers.~~
- 31 (10) ~~"Multiple effect evaporator system" means the multiple effect evaporators and associated~~
32 ~~condensers and hot wells used to concentrate the spent cooking liquid that is separated from the pulp~~
33 ~~(black liquor).~~
- 34 (11) ~~"Lime kiln" means a unit used to calcine lime mud, which consists primarily of calcium carbonate,~~
35 ~~into quicklime, which is calcium oxide.~~

1 ~~(12) "Condensate stripper system" means a column, and associated condensers, used to strip, with air or~~
2 ~~steam, total reduced sulfur compounds from condensate streams from various processes within a~~
3 ~~kraft pulp mill.~~

4 ~~(13) "Smelt dissolving tank" means a vessel used for dissolving the smelt collected from the recovery~~
5 ~~furnace.~~

6 ~~(14) "Black liquor solids" means the dry weight of the solids which enter the recovery furnace in the~~
7 ~~black liquor.~~

8 ~~(15) "Green liquor sulfidity" means the sulfidity of the liquor which leaves the smelt dissolving tank.~~

9 (a) For the purpose of this Rule, the following definitions apply:

10 (1) "Black liquor solids" means the dry weight of the solids which enter the recovery furnace in the
11 black liquor.

12 (2) "Condensate stripper system" means a column, and associated condensers, used to strip, with air or
13 steam, total reduced sulfur compounds from condensate streams from various processes within a
14 kraft pulp mill.

15 (3) "Cross recovery furnace" means a furnace used to recover chemicals consisting primarily of sodium
16 and sulfur compounds by burning black liquor which on a quarterly basis contains more than seven
17 percent by weight of the total pulp solids from the neutral sulfite semichemical process and has a
18 green liquor sulfidity of more than 28 percent.

19 (4) "Digester system" means each continuous digester or each batch digester used for the cooking of
20 wood in white liquor, and associated flash tanks, blow tanks, chip steamers and condensers.

21 (5) "Green liquor sulfidity" means the sulfidity of the liquor which leaves the smelt dissolving tank.

22 (6) "Kraft pulp mill" means any facility that produces pulp from wood by "cooking", industry term for
23 digesting, wood chips in a water solution of sodium hydroxide and sodium sulfide (white liquor) at
24 high temperature and pressure. Regeneration of cooking chemicals through a recovery process is
25 also considered part of the kraft pulp mill.

26 (7) "Lime kiln" means a unit used to calcine lime mud, which consists primarily of calcium carbonate,
27 into quicklime, which is calcium oxide.

28 (8) "Multiple-effect evaporator system" means the multiple-effect evaporators and associated
29 condensers and hot wells used to concentrate the spent cooking liquid that is separated from the
30 pulp, known in the industry as "black liquor".

31 (9) "Neutral sulfite semichemical pulping operation" means any operation in which pulp is produced
32 from wood by "cooking", industry term for digesting, wood chips in a solution of sodium sulfite
33 and sodium bicarbonate, followed by mechanical defibrating, also called grinding the wood pulp to
34 separate into its fibrous constituents.

35 (10) "New design recovery furnace" means a straight kraft recovery furnace that has both membrane wall
36 or welded wall construction and emission control designed air systems.

1 (11) "Old design recovery furnace" means a straight kraft recovery furnace that does not have membrane
2 wall or welded wall construction or emission control designed air systems.

3 (12) "Recovery furnace" means either a straight kraft recovery furnace or a cross recovery furnace and
4 includes the direct-contact evaporator for a direct-contact furnace.

5 (13) "Smelt dissolving tank" means a vessel used for dissolving the smelt collected from the recovery
6 furnace.

7 (14) "Straight kraft recovery furnace" means a furnace used to recover chemicals consisting primarily of
8 sodium and sulfur compounds by burning black liquor which on a quarterly basis contains seven
9 percent by weight or less of the total pulp solids from the neutral sulfite semichemical process or
10 has green liquor sulfidity of 28 percent or less.

11 (15) "Total reduced sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide, methyl
12 mercaptain, dimethyl sulfide, and dimethyl disulfide, that are released during the kraft pulping
13 operation.

14 (b) This ~~Regulation~~ Rule shall apply to recovery furnaces, digester systems, multiple-effect evaporator systems, lime
15 kilns, smelt dissolving tanks, and condensate stripping systems of kraft pulp mills not subject to ~~Regulation .0524 of~~
16 ~~this Section.~~ 15A NCAC 02D .0524.

17 (c) Emissions of total reduced sulfur from any kraft pulp mill subject to this ~~Regulation~~ Rule shall not exceed:

- 18 (1) 20 parts per million from any old design recovery furnace;
- 19 (2) five parts per million from any new design recovery furnace;
- 20 (3) 25 parts per million from any cross recovery furnace;
- 21 (4) five parts per million from any digester system;
- 22 (5) five parts per million from any multiple-effect evaporator system;
- 23 (6) 20 parts per million from any lime kiln;
- 24 (7) five parts per million from any condensate stripping system; and
- 25 (8) 0.032 pounds per ton of black liquor solids (dry weight) from any smelt dissolving tank.

26 (d) The emission limitations given in Subparagraphs (c)(1) through (c)(7) of this Rule are measured as hydrogen
27 sulfide on a dry gas basis and are averages of discrete contiguous 12-hour time periods. The emission limitations
28 given in Subparagraphs (c)(1) through (c)(3) of this Rule are corrected to eight percent oxygen by volume. The
29 emission limitations given in Subparagraph (c)(6) of this Rule is corrected to ~~10~~ ten percent oxygen by volume.

30 (e) One percent of all 12-hour total reduced sulfur averages per quarter year in excess of the limitations given in
31 Subparagraphs (c)(1) through (c)(3) of this Rule, in the absence of start-ups, shut-downs and malfunctions, shall not
32 be considered in violation. Two percent of all 12-hour total reduced sulfur averages per quarter year in excess of the
33 limitation given in Subparagraph (c)(6) of this Rule, in the absence of start-ups, shut-downs, and malfunctions, shall
34 not be considered in violation.

35
36 *History Note:* Authority *G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
37 *Eff. June 1, 1980;*

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2
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Amended Eff. July 1, 1988; July 1, 1987; January 1, 1985; November 1, ~~1982~~, 1982;
Readopted Eff.

1 15A NCAC 02D .0529 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0529 FLUORIDE EMISSIONS FROM PRIMARY ALUMINUM REDUCTION PLANTS**

4 (a) For the purpose of this Rule, the following definitions apply:

5 (1) "Fluoride" means elemental fluorine and all fluoride compounds as measured by the methods
6 specified in 15A NCAC 02D .2616 or by other equivalent or alternative methods approved by the
7 Director or his delegate, Director. ~~The Director may approve equivalent or alternative methods on~~
8 ~~an individual basis for sources or pollutants if equivalent or alternative methods can be demonstrated~~
9 ~~to determine compliance of permitted emission sources or pollutants.~~

10 (2) "Prebake cell" is an aluminum reduction pot ~~which uses~~ using carbon anodes ~~that are~~ formed,
11 pressed, and baked prior to their placement in the pot.

12 (3) "Primary aluminum reduction plant" means any facility manufacturing aluminum by electrolytic
13 reduction.

14 (b) This Rule shall apply to prebake cells at all primary aluminum reduction plants not subject to ~~Rule .0524 of this~~
15 ~~Section, 15A NCAC 02D .0524.~~

16 (c) An owner or operator of a primary aluminum reduction plant subject to this Rule shall not cause, allow, or permit
17 the use of the ~~rebake~~ prebake cells unless:

18 (1) 95 percent of the fluoride emissions are captured; and

19 (2) 98.5 percent of the captured fluoride emissions are removed before the exhaust gas is discharged
20 into the atmosphere.

21 (d) The owner or operator of a primary aluminum reduction plant subject to this Rule shall:

22 (1) ensure ~~that~~ hood covers are in good repair and positioned over the prebake cells;

23 (2) minimize the amount of time ~~that~~ hood covers are removed during pot working operations;

24 (3) if the hooding system is equipped with a dual low and high hood exhaust rate, use the high rate
25 whenever hood covers are removed and return to the normal exhaust rate when the hood covers are
26 replaced;

27 (4) minimize the occurrence of fuming pots and correct the cause of a fuming pot as soon as practical;
28 and

29 (5) if the tapping crucibles are equipped with hoses which return aspirator air under the hood, ensure
30 ~~that~~ the hoses are in good repair and ~~that~~ the air return system is functioning properly.

31
32 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

33 *Eff. June 1, 1981;*

34 *Amended Eff. June 1, 2008; July 1, 1988; January 1, ~~1985, 1985;~~*

35 *Readopted Eff.*

1 15A NCAC 02D .0530 is proposed for reoption with substantive changes as follows:

2
3 **15A NCAC 02D .0530 PREVENTION OF SIGNIFICANT DETERIORATION**

4 (a) The purpose of the Rule is to implement a program for the prevention of significant deterioration of air quality as
5 required by 40 CFR 51.166.

6 (b) For the purposes of this Rule, the definitions contained in 40 CFR 51.166(b) and 40 CFR 51.301 apply, except
7 ~~the definition of "baseline actual emissions."~~ For the purposes of this Rule, following:

8 (1) "Baseline actual emissions" means the rate of emissions, in tons per year, of a regulated new source
9 review (NSR) pollutant, as determined in accordance with Parts (A) through (C) of this
10 Subparagraph:

11 (A) For an existing emissions unit, baseline actual emissions means the average rate, in tons
12 per year, at which the emissions unit actually emitted the pollutant during any consecutive
13 24-month period selected by the owner or operator within the five year period immediately
14 preceding the date that a complete permit application is received by the Division for a
15 permit required under this Rule. The Director shall allow a different time period, not to
16 exceed 10 years immediately preceding the date that a complete permit application is
17 received by the Division, if the owner or operator demonstrates that it is more
18 representative of normal source operation. For the purpose of determining baseline actual
19 emissions, the following apply:

20 (i) The average rate shall include fugitive emissions to the extent quantifiable and
21 emissions associated with startups, shutdowns, and malfunctions;

22 (ii) The average rate shall be adjusted downward to exclude any non-compliant
23 emissions that occurred while the source was operating above any emission
24 limitation that was legally enforceable during the consecutive 24-month period;

25 (iii) For an existing emission unit (other than an electric utility steam generating unit),
26 the average rate shall be adjusted downward to exclude any emissions that would
27 have exceeded an emission limitation with which the major stationary source must
28 currently comply. However, if the State has taken credit in an attainment
29 demonstration or maintenance plan consistent with the requirements of 40 CFR
30 51.165(a)(3)(ii)(G) for an emission limitation that is part of a maximum
31 achievable control technology standard that the Administrator proposed or
32 promulgated under Part 63 in Title 40 of the Code of Federal Regulations, the
33 baseline actual emissions shall be adjusted to account for such emission
34 reductions;

35 (iv) For an electric utility steam generating unit, the average rate shall be adjusted
36 downward to reflect any emissions reductions under G.S. 143-215.107D and for
37 which cost recovery is sought pursuant to G.S. 62-133.6;

- 1 (v) For a regulated NSR pollutant, if a project involves multiple emissions units, only
2 one consecutive 24-month period shall be used to determine the baseline actual
3 emissions for all the emissions units being changed. A different consecutive 24-
4 month period for each regulated NSR pollutant may be used for each regulated
5 NSR pollutant; and
- 6 (vi) The average rate shall not be based on any consecutive 24-month period for which
7 there is inadequate information for determining annual emissions, in tons per year,
8 and for adjusting this amount if required by Subparts (ii) and (iii) of this Part;
- 9 (B) For a new emissions unit, the baseline actual emissions for purposes of determining the
10 emissions increase that will result from the initial construction and operation of such unit
11 shall equal zero and thereafter, for all other purposes, shall equal the unit's potential to
12 emit; and
- 13 (C) For a plantwide applicability limit (PAL) for a stationary source, the baseline actual
14 emissions shall be calculated for existing emissions units in accordance with the procedures
15 contained in Part (A) of this Subparagraph and, for a new emissions unit, in accordance
16 with the procedures contained in Part (B) of this Subparagraph;
- 17 (2) In the definition of "net emissions increase," the reasonable period specified in 40 CFR
18 51.166(b)(3)(ii) shall be seven years;
- 19 (3) The limitation specified in 40 CFR 51.166(b)(15)(ii) shall not apply; ~~and~~
- 20 (4) Particulate matter ~~PM_{2.5}~~ PM_{2.5} significant levels set forth in 40 CFR 51.166(b)(23)(i) are
21 incorporated by reference except as otherwise provided in this Rule. Sulfur dioxide (SO₂) and
22 nitrogen oxides (NO_x) are precursors to ~~PM_{2.5}~~ PM_{2.5} in all attainment and unclassifiable areas.
23 Volatile organic compounds ~~and ammonia~~ are not significant precursors to ~~PM_{2.5}~~ PM_{2.5}; ~~and~~
- 24 (5) In 40 CFR 51.166(b)(49)(i)(a), starting January 1, 2011, in addition to PM₁₀ and PM_{2.5}, for
25 particulate matter (PM), condensable particulate matter shall be accounted for in applicability
26 determinations and in establishing emissions limitations for each of these regulated NSR pollutants
27 in PSD permits.
- 28 (c) All areas of the State are classified as Class II, except the following areas, which are designated as Class I:
- 29 (1) Great Smoky Mountains National Park;
- 30 (2) Joyce Kilmer Slickrock National Wilderness Area;
- 31 (3) Linville Gorge National Wilderness Area;
- 32 (4) Shining Rock National Wilderness Area; and
- 33 (5) Swanquarter National Wilderness Area.
- 34 (d) Redesignations of areas to Class I or II may be submitted as state proposals to the Administrator of the
35 Environmental Protection Agency (EPA) if the requirements of 40 CFR 51.166(g)(2) are met. Areas may be proposed
36 to be redesignated as Class III if the requirements of 40 CFR 51.166(g)(3) are met. Redesignations may not, however,

1 be proposed which would violate the restrictions of 40 CFR 51.166(e). Lands within the boundaries of Indian
2 Reservations may be redesignated only by the appropriate Indian Governing Body.

3 (e) In areas designated as Class I, II, or III, increases in pollutant concentration over the baseline concentration shall
4 be limited to the values set forth in 40 CFR 51.166(c). However, concentration of the pollutant shall not exceed
5 standards set forth in 40 CFR 51.166(d).

6 (f) Concentrations attributable to the conditions described in 40 CFR 51.166(f)(1) shall be excluded in determining
7 compliance with a maximum allowable increase. However, the exclusions referred to in 40 CFR 51.166(f)(1)(i) or (ii)
8 shall be limited to five years as described in 40 CFR 51.166(f)(2).

9 (g) Major stationary sources and major modifications shall comply with the requirements contained in 40 CFR 51.166
10 (a)(7) and (i) and in 40 CFR 51.166(j) through (o) and (w). The transition provisions allowed by 40 CFR 52.21(i)(11)(i)
11 and (ii) and (m)(1)(vii) and (viii) are hereby adopted under this Rule. The minimum requirements described in the
12 portions of 40 CFR 51.166 referenced in this Paragraph are hereby adopted as requirements under this Rule, except
13 as otherwise provided in this Rule. Wherever the language of the portions of 40 CFR 51.166 referenced in this
14 Paragraph speaks of the "plan," the requirements described therein shall apply to the source to which they pertain,
15 except as otherwise provided in this Rule. Whenever the portions of 40 CFR 51.166 referenced in this Paragraph
16 provide that the State plan may exempt or not apply certain requirements in certain circumstances, those exemptions
17 and provisions of nonapplicability are also hereby adopted under this Rule. However, this provision shall not be
18 interpreted so as to limit information that may be requested from the owner or operator by the Director as specified in
19 40 CFR 51.166(n)(2).

20 (h) New natural gas-fired electrical utility generating units for which cost recovery is sought pursuant to G.S. 62-
21 133.6 shall install best available control technology for NO_x and SO₂, regardless of the applicability of the rest of this
22 Rule.

23 (i) For the purposes of this Rule, 40 CFR 51.166(w)(10)(iv)(a) shall read: "If the emissions level calculated in
24 accordance with Paragraph (w)(6) of this Section is equal to or greater than 80 percent of the PAL level, the Director
25 shall renew the PAL at the same level." 40 CFR 51.166(w)(10)(iv)(b) is not incorporated by reference.

26 (j) 15A NCAC 02Q .0102 shall not be applicable to any source to which this Rule applies. The owner or operator of
27 the sources to which this Rule applies shall apply for and receive a permit as required in 15A NCAC 02Q .0300 or
28 .0500.

29 (k) When a particular source or modification becomes a major stationary source or major modification solely by
30 virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the
31 source or modification to emit a pollutant, such as a restriction on hours of operation, then the provisions of this Rule
32 shall apply to the source or modification as though construction had not yet begun on the source or modification.

33 (l) For the purposes of this Rule, the provisions of 40 CFR 52.21(r)(2) regarding the period of validity of approval to
34 construct are incorporated by reference except that the term "Administrator" shall be replaced with "Director".

35 (m) Volatile organic compounds exempted from coverage in 40 CFR 51.100(s) shall be exempted when calculating
36 source applicability and control requirements under this Rule.

1 (n) The degree of emission limitation required for control of any air pollutant under this Rule shall not be affected
2 by:

- 3 (1) that amount of a stack height, not in existence before December 31, 1970, that exceeds good
4 engineering practice; or
- 5 (2) any other dispersion technique not implemented before December 31, 1970.

6 (o) A substitution or modification of a model as provided in 40 CFR 51.166(l) is subject to public comment procedures
7 in accordance with the requirements of 40 CFR 51.102.

8 (p) Permits may be issued on the basis of innovative control technology as set forth in 40 CFR 51.166(s)(1) if the
9 requirements of 40 CFR 51.166(s)(2) have been met, subject to the condition of 40 CFR 51.166(s)(3), and with the
10 allowance set forth in 40 CFR 51.166(s)(4).

11 (q) If a source to which this Rule applies impacts an area designated Class I by requirements of 40 CFR 51.166(e),
12 notice to EPA shall be provided as set forth in 40 CFR 51.166(p)(1). If the Federal Land Manager presents a
13 demonstration described in 40 CFR 51.166(p)(3) during the public comment period or public hearing to the Director
14 and if the Director concurs with this demonstration, the permit application shall be denied. Permits may be issued on
15 the basis that the requirements for variances as set forth in 40 CFR 51.166(p)(4), (p)(5) and (p)(7), or (p)(6) and (p)(7)
16 have been satisfied.

17 (r) A permit application subject to this Rule shall be processed in accordance with the procedures and requirements
18 of 40 CFR 51.166(q). Within 30 days of receipt of the application, applicants shall be notified if the application is
19 complete as to the initial information submitted. Commencement of construction before full prevention of significant
20 deterioration approval is obtained shall constitute a violation of this Rule.

21 (s) Approval of an application with regard to the requirements of this Rule shall not relieve the owner or operator of
22 the responsibility to comply with applicable provisions of other rules of this Subchapter, Subchapter 02Q of this Title,
23 or any other requirements under local, state, or federal law.

24 (t) When a source or modification is subject to this Rule the following procedures apply:

- 25 (1) Notwithstanding any other provisions of this Paragraph, the Director shall, no later than 60 days
26 after receipt of an application, notify the Federal Land Manager with the U.S. Department of Interior
27 and U.S. Department of Agriculture of an application from a source or modification subject to this
28 Rule;
- 29 (2) If a source or modification may affect visibility of a Class I area, the Director shall provide written
30 notification to all affected Federal Land Managers within 30 days of receiving the permit application
31 or within 30 days of receiving advance notification of an application. The notification shall be given
32 at least 30 days prior to the publication of notice for public comment on the application. The
33 notification shall include a copy of all information relevant to the permit application, including an
34 analysis provided by the source of the potential impact of the proposed source on visibility;
- 35 (3) The Director shall consider any analysis concerning visibility impairment performed by the Federal
36 Land Manager if the analysis is received within 30 days of notification. If the Director finds that the
37 analysis of the Federal Land Manager fails to demonstrate that an adverse impact on visibility will

1 result in the Class I area, the Director shall follow the public hearing process described in 40 CFR
2 51.307(a)(3) on the application and include an explanation of the Director's decision or notice as to
3 where the explanation can be obtained; and

- 4 (4) The Director may require monitoring of visibility in or around any Class I area by the proposed new
5 source or modification if the visibility impact analysis indicates possible visibility impairment,
6 pursuant to 40 CFR 51.307.

7 (u) In lieu of the requirements in 40 CFR 51.166(r)(6) and (7), the following shall apply. If the owner or operator of
8 a source is using projected actual emissions to ~~avoid applicability of~~ determine applicability with prevention of
9 significant deterioration requirements, the owner or operator shall ~~notify~~ submit an application to the Director of the
10 modification before beginning actual construction. ~~The notification~~ application shall include:

- 11 (1) a description of the project;
12 (2) identification of sources whose emissions could be affected by the project;
13 (3) the calculated projected actual emissions and an explanation of how the projected actual emissions
14 were calculated, including identification of emissions excluded by 40 CFR 51.166(b)(40)(ii)(c);
15 (4) the calculated baseline actual emissions in Subparagraph (b)(1) of this Rule and an explanation of
16 how the baseline actual emissions were calculated; and
17 (5) any netting calculations, if applicable.

18 If, upon reviewing the ~~notification, application,~~ the Director finds that the project will require a prevention of
19 significant deterioration evaluation, the Director shall notify the owner or operator of his or her ~~findings.~~ The findings
20 and the owner or operator shall not make the modification until a permit has been issued pursuant to this Rule. ~~If a~~
21 ~~permit revision is not required pursuant to this Rule,~~ If the Director finds that the project will not require a prevention
22 of significant deterioration evaluation and the projected actual emissions, without excluding any emissions calculated
23 pursuant to 40 CFR 51.166(b)(40)(ii)(c), minus the baseline actual emissions is 50 percent or greater of the amount
24 that is a significant emissions increase, without reference to the amount that is a significant net emissions increase, for
25 the regulated NSR pollutant, then the owner or operator shall maintain records of the annual emissions related to the
26 project in tons per year, ~~on a calendar year basis related to the modifications,~~ for 10 years following resumption of
27 regular operations after the change if the project involves increasing the emissions unit's design capacity or its potential
28 to emit the regulated NSR pollutant; otherwise, these records shall be maintained for five years following resumption
29 of regular operations after the change. The owner or operator shall submit a report to the Director within 60 days after
30 the end of each year during which these records must be generated. The report shall contain the items listed in 40 CFR
31 51.166(r)(6)(v)(a) through (c). The owner or operator shall make the information documented and maintained under
32 this Paragraph available to the Director and the general public, pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).
33 The reporting requirements in this Paragraph shall not apply if the projected actual emissions, without excluding any
34 emissions calculated pursuant to 40 CFR 51.166(b)(40)(ii)(c), minus the baseline actual emissions is less than 50
35 percent of the amount that is a significant emissions increase, without reference to the amount that is a significant net
36 emissions increase, for the regulated NSR pollutant.

1 (v) Portions of the regulations in the Code of Federal Regulations (CFR) that are referred to in this Rule are
2 incorporated by reference unless a specific reference states otherwise. The version of the CFR incorporated in this
3 Rule, with respect to 40 CFR 51.166, is that as of July 1, 2014-2019 at [https://www.gpo.gov/fdsys/pkg/CFR-2014-
5 title40-vol2/pdf/CFR-2014-title40-vol2-sec51-166.pdf](https://www.gpo.gov/fdsys/pkg/CFR-2014-
4 title40-vol2/pdf/CFR-2014-title40-vol2-sec51-166.pdf) ~~https://www.gpo.gov/fdsys/pkg/CFR-2014-
6 title40-vol2/pdf/CFR-2014-title40-vol2-sec51-166.pdf~~ [https://www.govinfo.gov/content/pkg/CFR-2019-title40-
8 vol2/pdf/CFR-2019-title40-vol2-sec51-166.pdf](https://www.govinfo.gov/content/pkg/CFR-2019-title40-
7 vol2/pdf/CFR-2019-title40-vol2-sec51-166.pdf) and does not include any subsequent amendments or ~~editions to the
9 referenced material.~~ editions. Federal regulations referenced in 40 CFR 51.166 shall include subsequent amendments
10 and editions. The publication may be accessed free of charge.

11 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3); 143-215.107(a)(5); 143-215.107(a)(7); 143-
12 215.108(b);*
13 *Eff. June 1, 1981;*
14 *Amended Eff. December 1, 1992; August 1, 1991; October 1, 1989; July 1, 1988; October 1, 1987;*
15 *June 1, 1985; January 1, 1985; February 1, 1983;*
16 *Temporary Amendment Eff. March 8, 1994, for a period of 180 days or until the permanent rule is*
17 *effective, whichever is sooner;*
18 *Amended Eff. September 1, 2017; September 1, 2013; January 2, 2011; September 1, 2010; May 1,*
19 *2008; July 28, 2006; July 1, 1997; February 1, 1995; July 1, 1994.*
20 *Readopted Eff.*

1 15A NCAC 02D .0531 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0531 SOURCES IN NONATTAINMENT AREAS**

4 (a) ~~For the purpose of this Rule, The purpose of this Rule is to implement a program for new source review in~~
5 ~~nonattainment areas as required by 40 CFR 51.165 and the definitions contained in 40 CFR 51.165(a)(1) and 40 CFR~~
6 ~~51.301 apply, except the definition of "baseline actual emissions." For the purposes of this Rule, following:~~

7 (1) "Baseline actual emissions" means the rate of emissions, in tons per year, of a regulated new source
8 review (NSR) pollutant, as determined in accordance with ~~Parts (A) through (C) of this~~
9 ~~Subparagraph. Subparagraphs (2) through (4) of this Paragraph;~~

10 ~~(A)(2)~~ For an existing emissions unit, baseline actual emissions means the average rate, in tons per year, at
11 which the emissions unit actually emitted the pollutant during any consecutive 24-month period
12 selected by the owner or operator within the five year period immediately preceding the date that a
13 complete permit application is received by the Division for a permit required under this Rule. The
14 Director shall allow a different time period, not to exceed 10 years immediately preceding the date
15 that a complete permit application is received by the Division, if the owner or operator demonstrates
16 that it is more representative of normal source operation. For the purpose of determining baseline
17 actual emissions, the following apply:

18 ~~(i)(A)~~ The average rate shall include fugitive emissions to the extent quantifiable, and emissions
19 associated with startups, shutdowns, and malfunctions;

20 ~~(ii)(B)~~ The average rate shall be adjusted downward to exclude any non-compliant emissions that
21 occurred while the source was operating above any emission limitation that was legally
22 enforceable during the consecutive 24-month period;

23 ~~(iii)(C)~~ For an existing emission unit (other than an electric utility steam generating unit), the
24 average rate shall be adjusted downward to exclude any emissions that would have
25 exceeded an emission limitation with which the major stationary source must currently
26 comply. However, if the State has taken credit in an attainment demonstration or
27 maintenance plan consistent with the requirements of 40 CFR 51.165(a)(3)(ii)(G) for an
28 emission limitation that is part of a maximum achievable control technology standard that
29 the Administrator proposed or promulgated under Part 63 in Title 40 of the Code of Federal
30 Regulations, the baseline actual emissions shall be adjusted to account for such emission
31 reductions;

32 ~~(iv)(D)~~ For an electric utility steam generating unit, the average rate shall be adjusted downward
33 to reflect any emissions reductions under G.S. 143-215.107D and for which cost recovery
34 is sought pursuant to G.S. 62-133.6;

35 ~~(v)(E)~~ For a regulated NSR pollutant, when a project involves multiple emissions units, only one
36 consecutive 24-month period shall be used to determine the baseline actual emissions for

1 all the emissions units being changed. A different consecutive 24-month period can be used
2 for each regulated NSR pollutant; and

3 ~~(vi)~~(F) The average rate shall not be based on any consecutive 24-month period for which there is
4 inadequate information for determining annual emissions, in tons per year, and for
5 adjusting this amount if required by Subparts (ii) and (iii) of this Part;

6 ~~(B)~~(3) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions
7 increase that will result from the initial construction and operation of such unit shall equal zero; and
8 thereafter, for all other purposes, shall equal the unit's potential to emit; and

9 ~~(C)~~(4) For a plantwide applicability limit (PAL) for a stationary source, the baseline actual emissions shall
10 be calculated for existing emissions units in accordance with the procedures contained in Part (A)
11 of this Subparagraph, and for a new emissions unit in accordance with the procedures contained in
12 Part (B) of this Subparagraph;

13 ~~(2)~~(b) In the definition of "net emissions increase," the reasonable period specified in 40 CFR 51.165(a)(1)(vi)(C)(1)
14 is seven ~~years;~~ and years.

15 ~~(3)~~(c) Particulate matter ~~PM_{2.5}~~ PM2.5 significant levels in 40 CFR 51.165(a)(1)(x)(A) are incorporated by reference
16 except as otherwise provided in this Rule. Sulfur dioxide (SO₂) and nitrogen oxides (NO_x) are precursors to ~~PM_{2.5}~~
17 PM2.5 in all nonattainment areas. Volatile organic compounds and ammonia are not significant precursors to ~~PM_{2.5}~~
18 PM2.5.

19 (d) In 40 CFR 51.165(a)(1)(xxxvii)(D), starting January 1, 2011, in addition to PM10 and PM2.5, for particulate
20 matter (PM), condensable particulate matter shall be accounted for in applicability determinations and in establishing
21 emission limitations for each of these regulated NSR pollutants in nonattainment major NSR permits.

22 ~~(b)~~(e) Redesignation to Attainment. If any county or part of a county to which this Rule applies is later designated in
23 40 CFR 81.334 as attainment, all sources in that county subject to this Rule before the redesignation date shall continue
24 to comply with this Rule.

25 ~~(e)~~(f) Applicability. 40 CFR 51.165(a)(2) is incorporated by reference. This Rule applies to areas designated as
26 nonattainment in 40 CFR 81.334, including any subsequent amendments or editions.

27 ~~(d)~~(g) This Rule is not applicable to:

28 ~~(1) complex sources of air pollution regulated only under Section .0800 of this Subchapter and not~~
29 ~~under any other rule in this Subchapter;~~

30 ~~(2)~~(1) emission of pollutants at the new major stationary source or major modification located in the
31 nonattainment area that are pollutants other than the pollutant or pollutants for which the area is
32 nonattainment. ~~(A A major stationary source or major modification that is major for volatile organic~~
33 ~~compounds or nitrogen oxides is also major for ~~ozone~~); ozone;~~

34 ~~(3)~~(2) emission of pollutants for which the source or modification is not major;

35 ~~(4)~~(3) a new source or modification that qualifies for exemption under the provision of 40 CFR
36 51.165(a)(4); or

1 ~~(5)~~(4) emission of compounds listed under 40 CFR 51.100(s) as having been determined to have negligible
2 photochemical reactivity except carbon monoxide.

3 ~~(e)~~(h) 15A NCAC 02Q .0102 ~~and .0302~~ are is not applicable to any source to which this Rule applies. The owner or
4 operator of the source shall apply for and receive a permit as required in 15A NCAC 02Q .0300 or .0500.

5 ~~(f)~~(i) To issue a permit to a source to which this Rule applies, the Director shall determine that the source meets the
6 following requirements:

7 (1) The new major stationary source or major modification will emit the nonattainment pollutant at a
8 rate no more than the lowest achievable emission rate;

9 (2) The owner or operator of the proposed new major stationary source or major modification has
10 demonstrated that all major stationary sources in the State that are owned or operated by this person
11 (or any entity controlling, controlled by, or under common control with this person) are subject to
12 emission limitations and are in compliance, or on a schedule for compliance that is federally
13 enforceable or contained in a court decree, with all applicable emission limitations and standards of
14 this Subchapter that EPA has authority to approve as elements of the North Carolina State
15 Implementation Plan for Air Quality;

16 (3) The owner or operator of the proposed new major stationary source or major modification will
17 obtain sufficient emission reductions of the nonattainment pollutant from other sources in the
18 nonattainment area so that the emissions from the new major source and any associated new minor
19 sources will be less than the emissions reductions by a ratio of at least 1.00 to 1.15 for volatile
20 organic compounds and nitrogen oxides and by a ratio of less than one to one for carbon monoxide.
21 The baseline for this emission offset shall be the actual emissions of the source from which offset
22 credit is obtained. Emission reductions shall not include any reductions resulting from compliance
23 (or scheduled compliance) with applicable rules in effect before the application. The difference
24 between the emissions from the new major source and associated new minor sources of carbon
25 monoxide and the emission reductions shall be sufficient to represent reasonable further progress
26 toward attaining the National Ambient Air Quality Standards. The emissions reduction credits shall
27 also conform to the provisions of 40 CFR 51.165(a)(3)(ii)(A) through (G) and (J); and

28 (4) The North Carolina State Implementation Plan for Air Quality is being carried out for the
29 nonattainment area in which the proposed source is located.

30 ~~(g)~~(j) New natural gas-fired electrical utility generating units for which cost recovery is sought pursuant to G.S. 62-
31 133.6 shall install lowest achievable emission rate technology for NO_x and SO₂, regardless of the applicability of the
32 rest of this Rule.

33 ~~(h)~~(k) For the purposes of this Rule, 40 CFR 51.165(f) is incorporated by reference except that 40 CFR
34 51.165(f)(10)(iv)(A) reads: "If the emissions level calculated in accordance with Paragraph (f)(6) of this Section is
35 equal to or greater than 80 percent of the PAL level, the Director shall renew the PAL at the same level." 40 CFR
36 51.165(f)(10)(iv)(B) is not incorporated by reference.

1 ~~(j)(l)~~ When a particular source or modification becomes a major stationary source or major modification solely by
2 virtue of a relaxation in any enforceable limitation established after August 7, 1980, on the capacity of the source or
3 modification to emit a pollutant, such as a restriction on hours of operation, then the provisions of this Rule shall apply
4 to the source or modification as though construction had not yet begun on the source or modification.

5 ~~(j)(m)~~ To issue a permit to a source of a nonattainment pollutant, the Director shall determine, in accordance with
6 Section 173(a)(5) of the Clean Air Act and in addition to the other requirements of this Rule, that an analysis (produced
7 by the permit applicant) of alternative sites, sizes, production processes, and environmental control techniques for the
8 source demonstrates that the benefits of the source significantly outweigh the environmental and social costs imposed
9 as a result of its location, construction, or modification.

10 ~~(k)(n)~~ For the purposes of this Rule, the provisions of 40 CFR 52.21(r)(2) regarding the period of validity of approval
11 to construct are incorporated by reference except that the term "Administrator" is replaced with "Director."

12 ~~(j)(o)~~ Approval of an application regarding the requirements of this Rule does not relieve the owner or operator of
13 the responsibility to comply with applicable provisions of other rules of this Chapter and any other requirements ~~under~~
14 in local, ~~state~~, State, or federal law.

15 ~~(m)(p)~~ Except as provided in 40 CFR 52.28(c)(6), for a source or modification subject to this Rule the following
16 procedures shall be followed:

- 17 (1) Notwithstanding any other provisions of this Paragraph, the Director shall, no later than 60 days
18 after receipt of an application, notify the Federal Land Manager with the U.S. Department of Interior
19 and U.S. Department of Agriculture of an application from a source or modification subject to this
20 Rule;
- 21 (2) The owner or operator of the source shall provide an analysis of the impairment to visibility that
22 would occur because of the source or modification and general commercial, industrial and other
23 growth associated with the source or modification;
- 24 (3) When a source or modification may affect the visibility of a Class I area, the Director shall provide
25 written notification to all affected Federal Land Managers within 30 days of receiving the permit
26 application or within 30 days of receiving advance notification of an application. The notification
27 shall be given at least 30 days before the publication of the notice for public comment on the
28 application. The notification shall include a copy of all information relevant to the permit
29 application, including an analysis provided by the source of the potential impact of the proposed
30 source on visibility;
- 31 (4) The Director shall consider any analysis concerning visibility impairment performed by the Federal
32 Land Manager if the analysis is received within 30 days of notification. If the Director finds that
33 the analysis of the Federal Land Manager fails to demonstrate to the Director's satisfaction that an
34 adverse impact on visibility will result in the Class I area, the Director shall follow the public hearing
35 process described in 40 CFR 51.307(a)(3) on the application and include an explanation of the
36 Director's decision or notice where the explanation can be obtained;

1 (5) The Director shall issue permits only to those sources whose emissions will be consistent with
2 making reasonable progress, as defined in Section 169A of the Clean Air Act, toward the national
3 goal of preventing any future, and remedying any existing, impairment of visibility in mandatory
4 Class I areas when the impairment results from manmade air pollution. In making the decision to
5 issue a permit, the Director shall consider the cost of compliance, the time necessary for compliance,
6 the energy and nonair quality environmental impacts of compliance, and the useful life of the source;
7 and

8 (6) The Director may require monitoring of visibility in or around any Class I area by the proposed new
9 source or modification when the visibility impact analysis indicates possible visibility impairment.

10 The requirements of this Paragraph do not apply to nonprofit health or nonprofit educational institutions.

11 ~~(h)(q)~~ If the owner or operator of a source is using projected actual emissions to avoid applicability of nonattainment
12 new source review, the owner or operator shall ~~notify~~ submit an application to the Director of the modification before
13 beginning actual construction. The notification shall include:

- 14 (1) a description of the project;
- 15 (2) identification of sources whose emissions could be affected by the project;
- 16 (3) the calculated projected actual emissions and an explanation of how the projected actual emissions
17 were calculated, including identification of emissions excluded by 40 CFR
18 51.165(a)(1)(xxviii)(B)(3);
- 19 (4) the calculated baseline actual emissions and an explanation of how the baseline actual emissions
20 were calculated; and
- 21 (5) any netting calculations, if applicable.

22 If upon reviewing the ~~notification, application,~~ the Director finds that the project will cause a nonattainment new
23 source review evaluation, the Director shall notify the owner or operator of his or her findings. The owner or operator
24 shall not make the modification until it has received a permit issued pursuant to this Rule. If a permit revision is not
25 required pursuant to this Rule, the owner or operator shall maintain records of annual emissions in tons per years, on
26 a calendar year basis related to the modifications for 10 years, following resumption of regular operations after the
27 change if the project involves increasing the emissions unit's design capacity or its potential to emit the regulated NSR
28 pollutant; otherwise these records shall be maintained for five years following resumption of regular operations after
29 the change. The owner or operator shall submit a report to the Director within 60 days after the end of each year during
30 which these records must be generated. The report shall contain the items listed in 40 CFR 51.165(a)(6)(v)(A) through
31 (C). The owner or operator shall make the information documented and maintained under this Paragraph available to
32 the Director and the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

33 ~~(e)(r)~~ The reference to Portions of the regulations in the Code of Federal Regulations (CFR) that are referred to in
34 this Rule are incorporated by reference unless a specific reference states otherwise. Except for 40 CFR 81.334, the
35 The version of the CFR incorporated in this Rule Rule, with respect to 40 CFR 51.165, is that as of May 16, 2008
36 July 1, 2019, at <http://www.gpo.gov/fdsys/pkg/FR-2008-05-16/pdf/E8-10768.pdf>
37 <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol2/pdf/CFR-2019-title40-vol2-sec51-165.pdf> and does

1 not include any subsequent amendments or ~~editions to the referenced material~~ editions. Federal regulations referenced
2 in 40 CFR 51.165 shall include subsequent amendments and editions. The publication may be accessed free of charge.

3
4 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.108(b);
5 Eff. June 1, 1981;
6 Amended Eff. December 1, 1993; December 1, 1992; August 1, 1991; December 1, 1989; October
7 1, 1989; July 1, 1988; October 1, 1987; June 1, 1985; January 1, 1985; February 1, 1983;
8 Temporary Amendment Eff. March 8, 1994 for a period of 180 days or until the permanent rule is
9 effective, whichever is sooner;
10 Amended Eff. September 1, 2013; January 2, 2011; September 1, 2010; May 1, 2008; May 1, 2005;
11 July 1, 1998; July 1, 1996; July 1, 1995; July 1, ~~1994~~.1994;
12 Readopted Eff. _____.
13
14

1 15A NCAC 02D .0532 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 02D .0532 SOURCES CONTRIBUTING TO AN AMBIENT VIOLATION**

4 (a) This Rule applies to new major stationary sources and major modifications to which ~~Rule .0531 of this Section~~
5 15A NCAC 02D .0531 does not apply and which would contribute to a violation of a national ambient air quality
6 standard but which would not cause a new violation.

7 (b) For the purpose of this Rule the definitions contained in Section II.A. of Appendix S of 40 CFR Part 51 shall
8 apply.

9 (c) The Rule is not applicable to:

10 ~~(1)~~ ~~complex sources of air pollution that are regulated only under Section .0800 of this Subchapter and~~
11 ~~not under any other rule of this Subchapter;~~

12 ~~(2)~~(1) emission of pollutants for which the area in which the new or modified source is located is
13 designated as nonattainment;

14 ~~(3)~~(2) emission of pollutants for which the source or modification is not major;

15 ~~(4)~~(3) emission of pollutants other than sulfur dioxide, ~~total suspended particulates~~, nitrogen oxides, and
16 carbon monoxide;

17 ~~(5)~~(4) a new or modified source whose impact will not increase ~~not~~ more than:

18 (A) ~~1.0 ug/m³ of SO₂ on an annual basis,~~ 1.0 µg/m³ of SO₂ on an annual basis;

19 (B) ~~5 ug/m³ of SO₂ on a 24 hour basis,~~ 5 µg/m³ of SO₂ on a 24-hour basis;

20 (C) ~~25 ug/m³ of SO₂ on a 3 hour basis,~~ 25 µg/m³ of SO₂ on a 3-hour basis;

21 (D) ~~1.0 ug/m³ of total suspended particulates on an annual basis,~~ 0.3 µg/m³ of PM_{2.5} on an
22 annual basis;

23 (E) ~~5 ug/m³ of total suspended particulates on a 24 hour basis,~~ 1.2 µg/m³ of PM_{2.5} on a 24-
24 hour basis;

25 (F) ~~1.0 ug/m³ of NO₂ on an annual basis,~~ 1.0 µg/m³ of NO₂ on an annual basis;

26 (G) ~~0.5 mg/m³ of carbon monoxide on an 8 hour basis,~~ 0.5 mg/m³ of carbon monoxide on an 8-
27 hour basis;

28 (H) ~~2 mg/m³ of carbon monoxide on a one hour basis,~~ 2 mg/m³ of carbon monoxide on a one-
29 hour basis;

30 (I) ~~1.0 ug/m³ of PM₁₀ on an annual basis,~~ 1.0 µg/m³ of PM₁₀ on an annual basis; or

31 (J) ~~5 ug/m³ of PM₁₀ on a 24 hour basis,~~ 5 µg/m³ of PM₁₀ on a 24-hour basis

32 at any locality that does not meet a national ambient air quality standard;

33 ~~(6)~~(5) sources which are not major unless secondary emissions are included in calculating the potential to
34 emit;

35 ~~(7)~~(6) sources which are exempted by the provision in Section II.F. of Appendix S of 40 CFR Part 51;

36 ~~(8)~~(7) temporary emission sources which will be relocated within two years; and

37 ~~(9)~~(8) emissions resulting from the construction phase of the source.

1 (d) 15A NCAC ~~2Q 02Q .0102 and .0302~~ is not applicable to any source to which this Rule applies. The owner
2 or operator of the source shall apply for and receive a permit as required in 15A NCAC ~~2Q 02Q~~ .0300 or .0500.

3 (e) To issue a permit to a new or modified source to which this Rule applies, the Director shall determine that the
4 source will meet the following conditions:

5 (1) The sources will emit the nonattainment pollutant at a rate no more than the lowest achievable
6 emission rate.

7 (2) The owner or operator of the proposed new or modified source has demonstrated that all major
8 stationary sources in the State which are owned or operated by this person (or any entity controlling,
9 controlled by, or under common control with this person) are subject to emission limitations and are
10 in compliance, or on a schedule for compliance which is federally enforceable or contained in a
11 court decree, with all applicable emission limitations and standards of this Subchapter which EPA
12 has authority to approve as elements of the North Carolina State Implementation Plan for Air
13 Quality.

14 (3) The source will satisfy one of the following conditions:

15 (A) The source will comply with ~~Subparagraph (e)(3) of Rule .0531 of this Section~~ 15A NCAC
16 02D .0531(e)(3) when the source is evaluated as if it were in the nonattainment area; or

17 (B) The source will have an air quality offset, i.e., the applicant will have caused an air quality
18 improvement in the locality where the national ambient air quality standard is not met by
19 causing reductions in impacts of other sources greater than any additional impact caused
20 by the source for which the application is being made. The emissions reductions creating
21 the air quality offset shall be placed as a condition in the permit for the source reducing
22 emissions. The requirements of this Part may be partially waived if the source is a resource
23 recovery facility burning municipal solid waste, the source must switch fuels due to lack
24 of adequate fuel supplies, or the source is required to be modified as a result of EPA
25 regulations and no exemption from such regulations is available and if:

26 (i) the permit applicant demonstrates that it made its best efforts to obtain sufficient
27 air quality offsets to comply with this Part;

28 (ii) the applicant has secured all available air quality offsets; and

29 (iii) the applicant will continue to seek the necessary air quality offsets and apply them
30 when they become available.

31 (f) At such time that a particular source or modification becomes a major stationary source or major modification
32 solely by virtue of a relaxation in any enforceable limitation established after August 7, 1980, on the capacity of the
33 source or modification to emit a pollutant, such as a restriction on hours of operation, then the provisions of this Rule
34 shall apply to the source or modification as though construction had not yet begun on the source or modification.

35 (g) The version of the Code of Federal Regulations incorporated in this Rule is that as of ~~January 1, 1989~~, July 1,
36 2019, at <https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol2/pdf/CFR-2019-title40-vol2-part51-appS.pdf>

1 and does not include any subsequent amendments or editions to the referenced material. The publication may be
2 accessed free of charge.

3

4 *History Note:* *Filed as a Temporary Amendment Eff. March 8, 1994 for a period of 180 days or until the*
5 *permanent rule becomes effective, whichever is sooner;*

6 *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.108(b); 150B-21.6;*

7 *Eff. June 1, 1981;*

8 *Amended Eff. July 1, 1994; December 1, 1993; December 1, 1992; October 1, ~~1989~~1989;*

9 *Readopted Eff.*

1 15A NCAC 02D .0533 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0533 STACK HEIGHT**

4 (a) For the purpose of this Rule, the following definition shall apply:

5 ~~(1) "Stack" means any point in a source designed to emit solids, liquids, or gases into the air, including~~
6 ~~a pipe or duct but not including flares.~~

7 ~~(1)(2)~~ "A stack in existence" means that the owner or operator had:

8 (A) begun, or caused to begin, a continuous program of physical on-site construction of the
9 stack; or

10 (B) entered into binding agreements or contractual obligations, which could not be canceled or
11 modified without substantial loss to the owner or operator, to undertake a program of
12 construction of the stack to be completed in the time that is normally required to construct
13 such a stack.

14 ~~(2)(3) "Dispersion technique" "Dispersion technique";~~

15 (A) "Dispersion technique" means any technique which attempts to affect the concentration of
16 a pollutant in the ambient air by:

17 (i) using that portion of a stack which exceeds good engineering practice stack
18 height,

19 (ii) varying the rate of emission of a pollutant according to atmospheric conditions or
20 ambient concentrations of that pollutant, or

21 (iii) increasing final exhaust gas plume rise by manipulating source process
22 parameters, exhaust gas parameters, stack parameters, or combining exhaust gases
23 from several existing stacks into one stack; or other selective handling of exhaust
24 gas streams so as to increase the exhaust gas plume rise.

25 (B) "Dispersion technique" does not include:

26 (i) the reheating of a gas stream, following use of a pollution control system, for the
27 purpose of returning the gas to the temperature at which it was originally
28 discharged from the facility generating the gas stream;

29 (ii) the using of smoke management in agricultural or silvicultural prescribed burning
30 programs;

31 (iii) the merging of exhaust gas streams where:

32 (I) The facility owner or operator demonstrates that the source was
33 originally designed and constructed with such merged gas streams;

34 (II) After July 8, 1985, such merging is part of a change in operation at the
35 facility that includes the installation of pollution controls and is
36 accompanied by a net reduction in the allowable emissions of a pollutant.

37 This exclusion from the definition of "dispersion techniques" shall apply

1 only to the emission limitation for the pollutant affected by such change
2 in operation; or

3 (III) Before July 8, 1985, such merging was part of a change in operation at
4 the source that included the installation of emissions control equipment
5 or was carried out for sound economic or engineering reasons. Where
6 there was an increase in the emission limitation or in the event that no
7 emission limitation was in existence prior to the merging, an increase in
8 the quantity of pollutants actually emitted prior to the merging, the
9 Director shall presume that merging was significantly motivated by an
10 intent to gain emissions credit for greater dispersion. Absent a
11 demonstration by the source owner or operator that merging was not
12 significantly motivated by such intent, the Director shall deny credit for
13 the effects of such merging in calculating the allowable emissions for the
14 source;

15 (iv) Episodic restrictions on residential woodburning and open burning; or

16 (v) Techniques ~~under~~ pursuant to Subpart (A)(iii) of this Subparagraph which
17 increase final exhaust gas plume rise where the resulting allowable emissions of
18 sulfur dioxide from the facility do not exceed 5,000 tons per year.

19 ~~(4) "Good engineering practice (GEP) stack height" means the greater of:~~

20 ~~(A) 65 meters measured from the ground level elevation at the base of the stack;~~

21 ~~(B) 2.5 times the height of nearby structure(s) measured from the ground level elevation at the~~
22 ~~base of the stack for stacks in existence on January 12, 1979 and for which the owner or~~
23 ~~operator had obtained all applicable permit or approvals required under 15A NCAC 2Q~~
24 ~~and 40 CFR Parts 51 and 52, provided the owner or operator produces evidence that this~~
25 ~~equation was actually relied on in establishing an emission limitation;~~

26 ~~(C) for stacks not covered under Part (B) of this Subparagraph, the height of nearby structures~~
27 ~~measured from the ground level elevation at the base of the stack plus 1.5 times the lesser~~
28 ~~dimension (height or projected width) of nearby structure(s) provided that the Director may~~
29 ~~require the use of a field study or fluid model to verify GEP stack height for the source; or~~
30 ~~(D) the height demonstrated by a fluid model or a field study approved by the Director, which~~
31 ~~ensures that the emissions from a stack do not result in excessive concentrations of any air~~
32 ~~pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source~~
33 ~~itself, nearby structures or nearby terrain features.~~

34 ~~(5) "Nearby" means, for a specific structure or terrain feature:~~

35 ~~(A) under Parts (4)(B) and (C) of this Paragraph, that distance up to five times the lesser of the~~
36 ~~height or the width dimension of a structure but not greater than one half mile. The height~~
37 ~~of the structure is measured from the ground level elevation at the base of the stack.~~

1 ~~(B) — under Part (4)(D) of this Paragraph, not greater than one half mile, except that the portion~~
2 ~~of a terrain feature may be considered to be nearby which falls within a distance of up to~~
3 ~~10 times the maximum height [Ht] of the feature, not to exceed two miles if such feature~~
4 ~~achieves a height [ht] one half mile from the stack that is at least 40 percent of the GEP~~
5 ~~stack height determined by Part (4)(C) of this Paragraph or 26 meters, whichever is greater,~~
6 ~~as measured from the ground level elevation at the base of the stack. The height of the~~
7 ~~structure or terrain feature is measured from the ground level elevation at the base of the~~
8 ~~stack.~~

9 (3) "Emission limitation" means a requirement established by this Subchapter or a local air quality
10 program certified by the Commission that limits the quantity, rate, or concentration of emissions of
11 air pollutants on a continuous basis, including any requirements that limit the level of opacity,
12 prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a
13 source to assure continuous emission reduction.

14 (4)(6) "Excessive concentrations" means, for the purpose of determining good engineering practice stack
15 height ~~under in~~ Part (4)(D)(5)(D) of this Paragraph:

16 (A) for sources seeking credit for stack height exceeding that established ~~under in~~ Part
17 ~~(4)(B)(5)(B)~~ or (C) of this Paragraph, a maximum ground-level concentration due to
18 emissions from a stack due in whole or part to downwash, wakes, and eddy effects
19 produced by nearby structures or nearby terrain features which individually is at least 40
20 percent in excess of the maximum concentration experienced in the absence of such
21 downwash, wakes, or eddy effects and which contributes to a total concentration due to
22 emissions from all sources that is greater than an ambient air quality standard. For sources
23 subject to ~~Rule .0530 of this Section,~~ 15A NCAC 02D .0530, an excessive concentration
24 alternatively means a maximum ground-level concentration due to emissions from a stack
25 due in whole or part to downwash, wakes, or eddy effects produced by nearby structures
26 or nearby terrain features which individually is at least 40 percent in excess of the
27 maximum concentration experienced in the absence of such downwash, wakes, or eddy
28 effects and greater than a prevention of significant deterioration increment. The allowable
29 emission rate to be used in making demonstrations ~~under in~~ this Part shall be prescribed by
30 the new source performance standard that is applicable to the source category unless the
31 owner or operator demonstrates that this emission rate is infeasible. Where such
32 demonstrations are approved by the Director, an alternative emission rate shall be
33 established in consultation with the source owner or operator;

34 (B) for sources seeking credit after October 11, 1983, for increases in existing stack heights up
35 to the heights established ~~under in Part (4)(B) or (C) of this Paragraph;~~ 15A NCAC 02D
36 .0533 (a)(5)(B) or (C);

- (i) a maximum ground-level concentration due in whole or part to downwash, wakes or eddy effects as provided in Part (A) of this Subparagraph, except that the emission rate specified by any applicable Rule in this Subchapter (or, in the absence of such a limit, the actual emission rate) shall be ~~used, or used; or~~
- (ii) the actual presence of a local nuisance (odor, visibility impairment, or pollutant concentration) caused by the existing stack, as determined by the Director; and
- (C) for sources seeking credit after January 12, 1979, for a stack height determined ~~under by Part (4)(B) or (C) of this Paragraph, 15A NCAC 02D .0533 (a)(5)(B) or (c)~~ where the Director requires the use of a field study or fluid model to verify GEP stack height, for sources seeking stack height credit after November 9, 1984 based on the aerodynamic influence of cooling towers, and for sources seeking stack height credit after December 31, 1970 based on the aerodynamic influence of structures not adequately represented by ~~Part (4)(B) or (C) of this Paragraph, 15A NCAC 02D .0533 (a)(5)(B) or (c).~~ a maximum ground-level concentration due in whole or part to downwash, wakes, or eddy effects that is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

~~(7) "Emission limitation" means a requirement established by this Subchapter or a local air quality program certified by the Commission that limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements that limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.~~

- (5) "Good engineering practice (GEP) stack height" means the greater of:
- (A) 65 meters measured from the ground-level elevation at the base of the stack;
 - (B) 2.5 times the height of nearby structure(s) measured from the ground-level elevation at the base of the stack for stacks in existence on January 12, 1979 and for which the owner or operator had obtained all applicable permit or approvals required pursuant to 15A NCAC 02Q and 40 CFR Parts 51 and 52, provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation;
 - (C) for stacks not covered by Part (B) of this Subparagraph, the height of nearby structures measured from the ground-level elevation at the base of the stack plus 1.5 times the lesser dimension (height or projected width) of nearby structure(s) provided that the Director requires the use of a field study or fluid model to verify GEP stack height for the source;
or
 - (D) the height demonstrated by a fluid model or a field study approved by the Director, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures or nearby terrain features.

1 (6) "Nearby" means, for a specific structure or terrain feature:

2 (A) in Parts (5)(B) and (C) of this Subparagraph, that distance up to five times the lesser of the
3 height or the width dimension of a structure but not greater than one-half mile. The height
4 of the structure is measured from the ground-level elevation at the base of the Stack; or

5 (B) in Part (5)(D) of this Subparagraph, not greater than one-half mile, except that the portion
6 of a terrain feature may be considered to be nearby which falls within a distance of up to
7 10 times the maximum height [ht] of the feature, not to exceed two miles if such feature
8 achieves a height [ht] one-half mile from the stack that is at least 40 percent of the GEP
9 stack height determined by Part (5)(C) of this Subparagraph or 26 meters, whichever is
10 greater, as measured from the ground-level elevation at the base of the stack. The height
11 of the structure or terrain feature is measured from the ground-level elevation at the base
12 of the stack.

13 (7) "Stack" means any point in a source designed to emit solids, liquids, or gases into the air, including
14 a pipe or duct but not including flares.

15 (b) With the exception stated in Paragraphs (c) and (d) of this Rule, the degree of emission limitations required by
16 any rule in this Subchapter shall not be affected by:

- 17 (1) that amount of a stack height that exceeds good engineering practice; or
18 (2) any other dispersion technique.

19 (c) Paragraph (b) shall not apply to:

- 20 (1) stack heights in existence or dispersion techniques implemented before December 31, 1970, except
21 where pollutants are being emitted from such stacks or using such dispersion techniques by sources,
22 as defined in Section 111(a)(3) of the Clean Air Act, which were constructed, or reconstructed, or
23 for which major modifications, as defined in ~~Rules 15A NCAC 02D .0530 (b) and .0531 (b) of this~~
24 ~~Section~~ were carried out after December 31, 1970; or
25 (2) coal-fired steam electric generating units, subject to provisions of Section 118 of the federal Clean
26 Air Act, which began operation before July 1, 1957, and whose stacks were constructed ~~under by~~ a
27 construction contract awarded before February 8, 1974.

28 However, these exemptions shall not apply to a new stack that replaces a stack that is exempted by Subparagraphs (1)
29 and (2) of this Paragraph. These exemptions shall not apply to a new source using a stack that is exempted by
30 Subparagraphs (1) and (2) of this Paragraph.

31 (d) This Rule shall not restrict the actual stack height of any source.

32
33 *History Note:* *Filed as a Temporary Amendment Eff. March 8, 1994 for a period of 180 days or until the*
34 *permanent rule becomes effective, whichever is sooner;*

35 *Authority G.S. 143-215.3(a)(1);*

36 *Eff. November 1, 1982;*

37 *Amended Eff. July 1, 1994; July 1, 1987; April 1, ~~1986-1986~~;*

38 *Readopted Eff _____.*

1 15A NCAC 02D .0534 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0534 FLUORIDE EMISSIONS FROM PHOSPHATE FERTILIZER INDUSTRY**

4 (a) Emissions of total fluorides shall not exceed:

5 (1) 0.020 pounds per ton of phosphorus-bearing material fed to any wet-process phosphoric acid plant;

6 (2) 0.010 pounds per ton of phosphorus-bearing material fed to any superphosphoric acid plant;

7 (3) 0.40 pounds per ton of phosphorus-bearing material fed to any granular diammonium phosphate
8 plant;

9 (4) 0.20 pounds per ton of phosphorus-bearing material fed to any run-of-pile triple superphosphate
10 plant including curing and storing process;

11 (5) 0.20 pounds per ton of phosphorus-bearing material fed to any granular triple superphosphate plant
12 that began operating after December 31, 1969;

13 (6) 0.40 pounds per ton of phosphorus-bearing material fed to any granular triple superphosphate plant
14 that began operating before January 1, 1970; and

15 (7) 0.00050 pounds per hour per ton of phosphorus-bearing material cured or stored at any curing or
16 storage facility associated with a granular triple ~~superphosphate~~ superphosphate plant.

17 (b) The phosphorus-bearing material mentioned in Paragraph (a) of this ~~Regulation~~ Rule shall be expressed as
18 phosphorus pentoxide.

19

20 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);

21 *Eff. November 1, ~~1982~~, 1982;*

22 *Readopted Eff.* _____.

23

1 15A NCAC 02D .0535 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0535 EXCESS EMISSIONS REPORTING AND MALFUNCTIONS**

4 (a) For this Rule the following definitions apply:

5 (1) "Excess Emissions" means an emission rate that exceeds any applicable emission limitation or
6 standard allowed by any rule in ~~Sections~~ 15A NCAC 02D .0500, .0900, .1200, or .1400 of this
7 ~~Subchapter, 1400~~; or by a permit condition; or that exceeds an emission limit established in a permit
8 issued ~~under~~ pursuant to 15A NCAC 02Q .0700.

9 (2) "Malfunction" means any unavoidable failure of air pollution control equipment, process equipment,
10 or process to operate in a normal and usual manner that results in excess emissions. Excess
11 emissions during periods of routine start-up and shut-down of process equipment are not considered
12 a malfunction. Failures caused entirely or in part by poor maintenance, careless operations or any
13 other upset condition within the control of the emission source are not considered a malfunction.

14 (3) "Start-up" means the commencement of operation of any source that has shut-down or ceased
15 operation for a period sufficient to cause temperature, pressure, process, chemical, or a pollution
16 control device imbalance that would result in excess emission.

17 (4) "Shut-down" means the cessation of the operation of any source for any purpose.

18 (b) This Rule does not apply to sources to which Rules .0524, .1110, or .1111 of this Subchapter applies unless excess
19 emissions exceed an emission limit established in a permit issued under 15A NCAC 02Q .0700 that is more stringent
20 than the emission limit set by Rules .0524, .1110 or .1111 of this Subchapter.

21 (c) Any excess emissions that do not occur during start-up or shut-down are considered a violation of the appropriate
22 rule unless the owner or operator of the source of excess emissions demonstrates to the Director, that the excess
23 emissions are the result of a malfunction. To determine if the excess emissions are the result of a malfunction, the
24 Director shall consider, along with any other pertinent information, the following:

25 (1) The air cleaning device, process equipment, or process has been maintained and operated, to the
26 maximum extent practicable, consistent with good practice for minimizing emissions;

27 (2) Repairs have been made expeditiously when the emission limits have been exceeded;

28 (3) The amount and duration of the excess emissions, including any bypass, have been minimized to
29 the maximum extent practicable;

30 (4) All practical steps have been taken to minimize the impact of the excess emissions on ambient air
31 quality;

32 (5) The excess emissions are not part of a recurring pattern indicative of inadequate design, operation,
33 or maintenance;

34 (6) The requirements of Paragraph (f) of this Rule have been met; and

35 (7) If the source is required to have a malfunction abatement plan, it has followed that plan. All
36 malfunctions shall be repaired as expeditiously as practicable. However, the Director shall not
37 excuse excess emissions caused by malfunctions from a source for more than 15 percent of the

1 operating time during each calendar year. The Director may require the owner or operator of a
2 facility to maintain records of the time that a source operates when it or its air pollution control
3 equipment is malfunctioning or otherwise has excess emissions.

4 (d) All electric utility boiler units shall have a malfunction abatement plan approved by the Director as satisfying the
5 requirements of Subparagraphs (1) through (3) of this Paragraph. In addition, the Director may require any other
6 source to have a malfunction abatement plan approved by the Director as satisfying the requirements of Subparagraphs
7 (1) through (3) of this Paragraph. If the Director requires a malfunction abatement plan for a source other than an
8 electric utility boiler, the owner or operator of that source shall submit a malfunction abatement plan within 60 days
9 after receipt of the Director's request. The malfunction plans of electric utility boiler units and of other sources
10 required to have them shall be implemented when a malfunction or other breakdown occurs. The purpose of the
11 malfunction abatement plan is to prevent, detect, and correct malfunctions or equipment failures that could result in
12 excess emissions. A malfunction abatement plan shall contain:

- 13 (1) a complete preventive maintenance program including:
 - 14 (A) the identification of individuals or positions responsible for inspecting, maintaining and
15 repairing air cleaning devices;
 - 16 (B) a description of the items or conditions that will be inspected and maintained;
 - 17 (C) the frequency of the inspection, maintenance services, and repairs; and
 - 18 (D) an identification and quantities of the replacement parts that shall be maintained in
19 inventory for quick replacement;
- 20 (2) an identification of the source and air cleaning operating variables and outlet variables, such as
21 opacity, grain loading, and pollutant concentration, that may be monitored to detect a malfunction
22 or failure; the normal operating range of these variables and a description of the method of
23 monitoring or surveillance procedures and of informing operating personnel of any malfunctions,
24 including alarm systems, lights or other indicators; and
- 25 (3) a description of the corrective procedures that the owner or operator will take in case of a
26 malfunction or failure to achieve compliance with the applicable rule as expeditiously as practicable
27 but no longer than the next boiler or process outage that would provide for an orderly repair or
28 correction of the malfunction or 15 days, whichever is shorter. If the owner or operator anticipates
29 that the malfunction would continue for more than 15 days, a case-by-case repair schedule shall be
30 established by the Director with the source. The owner or operator shall maintain logs to show that
31 the operation and maintenance parts of the malfunction abatement plan are implemented. These
32 logs are subject to inspection by the Director or his designee upon request during business hours.

33 (e) The owner or operator of any source required by the Director to have a malfunction abatement plan shall submit
34 a malfunction abatement plan to the Director within six months after it has been required by the Director. The
35 malfunction abatement plan and any amendment to it shall be reviewed by the Director or his designee. If the plan
36 carries out the objectives described by Paragraph (d) of this Rule, the Director shall approve it. If the plan does not
37 carry out the objectives described by Paragraph (d) of this Rule, the Director shall disapprove the plan. The Director

1 shall state his reasons for his disapproval. The person who submits the plan shall submit an amendment to the plan to
2 satisfy the reasons for the Director's disapproval within 30 days of receipt of the Director's notification of disapproval.
3 Any person having an approved malfunction abatement plan shall submit to the Director for his approval amendments
4 reflecting changes in any element of the plan required by Paragraph (d) of this Rule or amendments when requested
5 by the Director. The malfunction abatement plan and amendments to it shall be implemented within 90 days upon
6 receipt of written notice of approval.

7 (f) The owner or operator of a source of excess emissions that last for more than four hours and that results from a
8 malfunction, a breakdown of process or control equipment or any other abnormal conditions, shall:

9 (1) notify the Director or his designee of any such occurrence by 9:00 a.m. Eastern time of the Division's
10 next business day of becoming aware of the occurrence and describe:

11 (A) name and location of the facility,

12 (B) the nature and cause of the malfunction or breakdown,

13 (C) the time when the malfunction or breakdown is first observed,

14 (D) the expected duration, and

15 (E) an estimated rate of emissions;

16 (2) notify the Director or his designee immediately when the corrective measures have been
17 accomplished;

18 (3) submit to the Director within 15 days after the request a written report that includes:

19 (A) name and location of the facility,

20 (B) identification or description of the processes and control devices involved in the
21 malfunction or breakdown,

22 (C) the cause and nature of the event,

23 (D) time and duration of the violation or the expected duration of the excess emission if the
24 malfunction or breakdown has not been fixed,

25 (E) estimated quantity of pollutant emitted,

26 (F) steps taken to control the emissions and to prevent recurrences and if the malfunction or
27 breakdown has not been fixed, steps planned to be taken, and

28 (G) any other pertinent information requested by the Director. After the malfunction or
29 breakdown has been corrected, the Director may require the owner or operator of the source
30 to test the source in accordance with Section .2600 of this Subchapter to demonstrate
31 compliance.

32 (g) Start-up and shut-down. Excess emissions during start-up and shut-down are considered a violation of the
33 appropriate rule if the owner or operator cannot demonstrate that the excess emissions are unavoidable. To determine
34 if excess emissions are unavoidable during startup or shutdown the Director shall consider the items listed in
35 ~~Paragraphs~~ ~~Subparagraphs~~ (c)(1), (c)(3), (c)(4), (c)(5), and (c)(7) of this Rule along with any other pertinent
36 information. The Director may specify for a particular source the amount, time, and duration of emissions allowed
37 during start-up or shut-down. The owner or operator shall, to the extent practicable, operate the source and any

1 associated air pollution control equipment or monitoring equipment in a manner consistent with best practicable air
2 pollution control practices to minimize emissions during start-up and shut-down.

3

4 *History Note: Authority G.S. 143-215.3(a)(1);143-215.107(a)(4); 143-215.107(a)(5);*

5 *Eff. March 1, 1983;*

6 *Amended Eff. June 1, 2008; April 1, 2001; July 1, 1998; July 1, 1996; October 1, 1991; May 1,*
7 *1990; April 1, 1986; July 1, 1984.*

8 *Readopted Eff.*

9

10

1 15A NCAC 02D .0536 is proposed for repeal through readoption as follows:

2
3 **15A NCAC 02D .0536 PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS**

4 ~~(a) The purpose of this Rule is to establish particulate and visible emission limits for the listed units by utilizing~~
5 ~~control technology to protect the public health and welfare of the State and its citizens.~~

6 ~~(b) Notwithstanding Rule .0503 of this Section, emissions of particulate matter from the utility boiler units specified~~
7 ~~in the following table shall not exceed the maximum emission rate in the table as measured by a stack test conducted~~
8 ~~in accordance with Section .2600 of this Subchapter. The results of any stack test shall be reported within 30 days,~~
9 ~~and the test report shall be submitted within 60 days after the test. In addition to limitations contained in Rule .0521~~
10 ~~of this Section, visible emissions from the utility boiler units specified in the table shall not exceed the annual average~~
11 ~~opacity limits in the table. Each day an annual average opacity value shall be calculated for each unit for the most~~
12 ~~recent 365 day period ending with the end of the previous day. The average is the sum of the measured non-~~
13 ~~overlapping six minute averages of opacity determined only while the unit is in operation divided by the number of~~
14 ~~such measured non overlapping six minute averages. Start up, shut down, and non operating time shall not be~~
15 ~~included in the annual average opacity calculation, but malfunction time shall be included, Rule .0535 of this Section~~
16 ~~notwithstanding. The Director may approve an alternate method of calculating the annual average opacity if:~~

- 17 (1) ~~the alternate method is submitted by the electric utility company,~~
18 (2) ~~the director concludes that the alternate method will not cause a systematic or unacceptable~~
19 ~~difference in calculated values from the specified method, and~~
20 (3) ~~it is mutually agreed that the values calculated using the alternate method can be used for~~
21 ~~enforcement purposes.~~

22 The owner or operator of each unit shall submit a report to the Director by the 30th day following the end of each
23 month. This report shall show for each day of the previous month the calculated annual average opacity of each unit
24 and the annual average opacity limit. If a violation occurs, the owner or operator of the unit shall immediately notify
25 the Director.

26

Facility	Boiler/Unit	Maximum Emission Rate (Lb/Million Btu of Heat Input)	Annual Average Opacity Limit (Percent)
Duke Power Comp.			
Allen	1	0.25	20
-	2	0.25	20
-	3	0.25	13
-	4	0.25	14
-	5	0.25	17
-			

Facility	Boiler/Unit	Maximum Emission Rate (Lb/Million Btu of Heat Input)	Annual Average Opacity Limit (Percent)
Belews Creek	1	0.15	17
-	2	0.15	17
-			
Buck	5	0.15	10
-	6	0.15	10
-	7	0.15	6
-	8	0.15	8
-	9	0.15	10
-			
Cliffside	1	0.25	8
-	2	0.25	12
-	3	0.25	8
-	4	0.25	8
-	5	0.25	16
-			
Dan River	1	0.15	7
-	2	0.15	9
-	3	0.25	20
Marshall	1	0.20	20
-	2	0.20	20
-	3	0.18	20
-	4	0.18	20
-			
Riverbend	4	0.12	12
-	5	0.12	12
-	6	0.12	12
-	7	0.12	12
-			
Carolina Power & Light Company			
Asheville	1	0.12	10

Facility	Boiler/Unit	Maximum Emission Rate (Lb/Million Btu of Heat Input)	Annual Average Opacity Limit (Percent)
-	2	0.12	5
-			
Cape Fear	5	0.20	17
-	6	0.20	15
-			
Lee	1	0.25	18
-	2	0.13	11
-	3	0.25	15
-			
Roxboro	1	0.25	15
-	2	0.16	20
-	3	0.10	25
-			
Sutton	1	0.11	14
-	2	0.11	14
-	3	0.11	20
-			
Weatherspoon	1	0.14	8
-	2	0.14	10
-	3	0.15	23

1
2 (c) For the purpose of this Rule, the heat input shall be the total heat content of all fuels burned in the unit during the
3 period of time for which the compliance determination is being made.

4 (d) Stack tests shall be conducted in accordance with Section .2600 of this Subchapter, and six minute average opacity
5 readings shall be recorded during the tests. If a stack test and opacity data are acceptable to the Director, the results
6 shall be used by the owner or operator to update and refine the mass opacity curve for that unit at least annually or
7 when otherwise requested by the Director. The owner or operator of a unit shall notify the Director whenever an
8 alteration in the equipment, method of operation, fuel, or other factors, may cause a systematic change in the mass
9 opacity curve expected to last more than one month.

10 (e) The owner or operator of units listed in Paragraph (b) of this Rule shall produce each year for each unit at least
11 one stack test conducted in accordance Section .2600 of this Subchapter, the results of which are submitted to and
12 accepted by the Director and which demonstrate achievement of the maximum emission rate for that unit.

1 ~~(f) Whenever a stack test shows emissions of particulate matter exceeding the maximum emission rate listed in~~
2 ~~Paragraph (b) of this Rule, all necessary steps shall be taken to ensure that the emissions of particulate matter do not~~
3 ~~continue to exceed the maximum emission rate and a retest shall be conducted before the 45th operating day following~~
4 ~~the day the excess was measured.~~

5 ~~(g) Opacity shall be measured using an opacity monitoring system that meets the performance specifications of~~
6 ~~Appendix B of 40 CFR Part 60. The opacity monitoring system shall be subjected to a quality assurance program in~~
7 ~~accordance with Rule .0613 of this Section approved by the Director. The owner or operator of each unit subject to~~
8 ~~this Rule shall have on file with the Director an approved quality assurance program, and shall submit to the Director~~
9 ~~within the time period of his request for his approval a revised quality assurance program, including procedures and~~
10 ~~frequencies for calibration, standards traceability, operational checks, maintenance, auditing, data validation, and a~~
11 ~~schedule for implementing the quality assurance program.~~

12 ~~(h) The owner or operator of each unit subject to this Rule shall have on file with the Director an approved malfunction~~
13 ~~abatement plan, and shall submit to the Director within the time period of his request for his approval a revised~~
14 ~~malfunction abatement plan, in accordance with Rule .0535 (d) and (e) of this Section. The owner or operator shall~~
15 ~~submit each month for each malfunction and other equipment failures that occurred at each unit during the preceding~~
16 ~~month a report that meets the requirements of Rule .0535 (f)(3) of this Section.~~

17
18 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
19 *Eff. March 1, 1983;*
20 *Amended Eff. June 1, 2008; April 1, 2001; August 1, 1991; August 1, 1987; February 1, ~~1986-1986~~;*
21 *Repealed Eff. _____.*

1 15A NCAC 02D .0537 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0537 CONTROL OF MERCURY EMISSIONS**

4 (a) For the purpose of this Rule, the following definitions shall apply:

5 (1) "Mercury" means the element mercury, excluding any associated elements, and includes mercury
6 in particulates, vapors, aerosols, and compounds.

7 (2) "Stationary source" means the total plant site. This includes all emissions (stacks, ducts, vents,
8 openings, fugitives, etc.) to the atmosphere within the property boundary.

9 (b) This Rule shall apply to all new and existing stationary sources engaged in the handling or processing of mercury
10 and not subject to standards on emissions for mercury ~~in Rule .0530, .1110, or .1111 of this Subchapter.~~ in 15A NCAC
11 02D .0530, .1110, or .1111.

12 (c) An owner or operator of a stationary source engaged in the handling or processing of mercury shall not cause,
13 allow, or permit particulate or gaseous mercury emissions ~~in excess of~~ more than 2300 grams per day into the ~~outdoor~~
14 atmosphere.

15

16 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

17 *Eff. June 1, 1985;*

18 *Amended Eff. July 1, ~~1996-1996~~;*

19 *Readopted Eff. _____.*

20

21

1 15A NCAC 02D .0538 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0538 CONTROL OF ETHYLENE OXIDE EMISSIONS**

4 (a) For purposes of this Rule, "medical devices" means instruments, apparatus, implements, machines, implants, in
5 vitro reagents, ~~contrivances~~, or other similar or related articles including their components, parts, and accessories,
6 intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; or
7 intended to affect the structure or any function of the body of man or other animals.

8 (b) This Rule applies to emissions of ethylene oxide resulting from use as a sterilant in:

- 9 (1) the production and subsequent storage of medical devices; or
10 (2) the packaging and subsequent storage of medical devices for sale;

11 at facilities for which construction began after August 31, 1992.

12 (c) This Rule does not apply to hospital or medical facilities.

13 (d) Facilities subject to this Rule shall comply with the following standards:

14 (1) ~~For~~for sterilization chamber evacuation, a closed loop liquid ring vacuum pump, or equipment
15 demonstrated to be as effective at reducing emissions of ethylene oxide shall be used;

16 (2) ~~For~~for sterilizer exhaust, a reduction in the weight of uncontrolled emissions of ethylene oxide of
17 at least 99.8 percent by weight shall be achieved;

18 (3) ~~For~~for sterilizer unload and backdraft valve ~~exhaust, a reduction:~~ exhaust:

19 (A) a reduction in uncontrolled emissions of ethylene oxide of at least 99 percent by weight
20 shall be achieved; or

21 (B) ~~to~~ a concentration of no more than one part per million by volume of ethylene oxide shall
22 be achieved;

23 (4) ~~Sterilized~~sterilized product ethylene oxide residual emissions shall be reduced by:

24 (A) a heated degassing room to aerate the products after removal from the sterilization
25 ~~chamber;~~chamber. ~~the~~The temperature of the degassing room shall be maintained at a
26 minimum of 95 degrees Fahrenheit during the degassing ~~cycle,~~ cycle and product hold time
27 in the aeration room shall be at least 24 hours; or

28 (B) a process demonstrated to be as effective as Part (d)(4)(A) of this Rule.

29 (5) ~~Emissions~~emissions of ethylene oxide from the degassing area ~~(or or equivalent process)~~ process
30 shall be vented to a control device capable of reducing uncontrolled ethylene oxide emissions by at
31 least 99 percent by weight or to no more than one part per million by volume of ethylene ~~oxide.~~
32 oxide. The product aeration room and the product transfer area shall be maintained under a negative
33 pressure.

34 (e) Before installation of the controls required by Paragraph (d) of this Rule, and annually thereafter, a written
35 description of waste reduction, elimination, or recycling plan shall be submitted ~~[as specified in G.S. 143-215.108(g)]~~
36 to determine if ethylene oxide use can be reduced or eliminated through alternative sterilization methods or process
37 modifications.

1 (f) The owner or operator of the facility shall conduct a performance test to verify initial efficiency of the control
2 devices. The owner or operator shall maintain temperature records to demonstrate proper operation of the degassing
3 room. Such records shall be retained for a period of at least two calendar years and shall be made available for
4 inspection by Division personnel.

5 (g) If the owner or operator of a facility subject to the Rule demonstrates, using the procedures in ~~Rule .1106 of this~~
6 ~~Section, 15A NCAC 02D .1106,~~ that the emissions of ethylene oxide from all sources at the facility do not cause the
7 acceptable ambient level of ethylene oxide in ~~Rule .1104 of this Section~~ 15A NCAC 02D .1104 to be exceeded, then
8 the requirements of Paragraphs (d) through (e) of this Rule shall not apply. This demonstration shall be at the option
9 of the owner or operator of the facility. If this option is chosen, the Director shall write the facility's permit to satisfy
10 the requirements of ~~Rule .1104(a) of this Section~~ 15A NCAC 02D .1104(a).

11
12 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(4),(5); 143-215.108(c);*
13 *Eff. September 1, 1992;*
14 *Amended Eff. June 1, 2004; August 1, ~~2002~~, 2002;*
15 *Readopted Eff. _____.*
16
17

1 15A NCAC 02D .0539 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0539 ODOR CONTROL OF FEED INGREDIENT MANUFACTURING PLANTS**

4 (a) Applicability. The requirements of this Rule apply to any facility that produces feed-grade animal proteins or feed-
5 grade animal fats and oils, but do not apply to any portions of such facilities ~~that are~~ engaged exclusively in the
6 processing of food for human consumption.

7 (b) This Rule does not apply to those facilities solely engaged in the processing of marine byproducts. Those facilities,
8 however, shall continue to control their odorous emissions ~~in accordance with Rule .1806 of this Subchapter.~~ pursuant
9 to 15A NCAC 02D .1806.

10 (c) A person shall not allow, cause, or permit the operation or use of any device, machine, equipment, or other
11 contrivance to process material to be used in the production of feed-grade animal proteins or feed-grade animal fats
12 and oils unless all gases, vapors, and gas-entrained effluents from these processes are passed through condensers to
13 remove all steam and other condensible materials. All noncondensibles passing through the condensers shall then be
14 incinerated at 1200 degrees Fahrenheit for a period of not less than 0.3 seconds, or treated in an equally effective
15 manner.

16 (d) Measurement and Recording Requirements. Any person processing or incinerating gases, vapors, or gas-entrained
17 matter as required by Paragraph (c) of this Rule shall install, operate, and maintain in good working order and
18 calibration continuous measuring and recording devices for equipment operational parameters to document equipment
19 operation in accordance with this Rule. In addition, the owner or operator of the facility shall:

- 20 (1) demonstrate ~~that~~ the measuring and recording devices are capable of verifying the compliance status
21 of the equipment on a continuous basis;
- 22 (2) describe the parameters to be used to determine the compliance status and how these parameters:
23 (A) are to be measured;
24 (B) are to be used to determine compliance status; and
- 25 (3) provide a quality assurance program approved by the Director for all monitoring devices and
26 systems that includes:
27 (A) procedures and frequencies for calibration;
28 (B) standards traceability;
29 (C) operational ~~checks,~~ checks;
30 (D) maintenance schedules and procedures;
31 (E) auditing schedules and procedures;
32 (F) data validation; and
33 (G) schedule for implementing the quality assurance program.

34 These data shall be available to the Director upon request.

35 (e) A person shall not allow, cause, or permit the installation or operation of expeller units unless they are properly
36 hooded and all exhaust gases are collected or ducted to odor control equipment.

1 (f) A person subject to this Rule shall not cause or permit any raw material to be handled, transported, or stored, or
2 to undertake the preparation of any raw material without taking reasonable precautions to prevent odors from being
3 discharged. For the purpose of this Rule, such raw material is in "storage" after it has been unloaded at a facility or
4 after it has been located at the facility for at least 36 hours. Reasonable precautions shall include the following:

- 5 (1) storage of all raw material before or in the process of preparation, in properly enclosed and vented
6 equipment or areas, together with the use of effective devices and methods to prevent the discharge
7 of odor bearing gases;
- 8 (2) use of covered vehicles or containers of watertight construction for the handling and transporting of
9 any raw material; and
- 10 (3) use of hoods and fans to enclose and vent the storage, handling, preparation, and conveying of any
11 odorous materials together with effective devices or methods, or both, to prevent emissions of odors
12 or odor bearing gases.

13 (g) A vehicle or container holding raw material, which has not been unloaded inside or parked inside an odor
14 controlled area within the facility, shall be unloaded for processing of the raw material prior to the expiration of the
15 following time limits:

- 16 (1) for feathers with only trace amounts of blood, such as those obtained from slaughtering houses that
17 separate blood from offal and feathers, no later than 48 hours after being weighed upon arrival at
18 the facility.
- 19 (2) for used cooking oil in sealed tankers, no later than 96 hours after being weighed upon arrival at the
20 facility.

21 (h) The owner or operator shall notify the regional supervisor of the appropriate regional office within two business
22 days after the provisions of Paragraph (g) of this Rule are not met and the conditions that are encountered that cause
23 or may cause release of excessive and malodorous gases or vapors.

24 ~~(i) Compliance Schedule. The owner or operator of a facility subject to this Rule that begins construction or is in
25 operation before July 1, 1996, shall adhere to the following increments of progress and schedules:~~

- 26 ~~(1) documentation that the facility complies with this Rule or an air permit application containing plans
27 to bring the facility into compliance and a schedule shall be submitted by January 1, 1997;~~
- 28 ~~(2) the compliance schedule shall contain the following increments of progress:~~
 - 29 ~~(A) a date by which contracts for the emission control system and process equipment shall be
30 awarded or orders shall be issued for purchase of component parts;~~
 - 31 ~~(B) a date by which on site construction or installation of the emission control and process
32 equipment shall begin;~~
 - 33 ~~(C) a date by which on site construction or installation of the emission control and process
34 equipment shall be completed; and~~
 - 35 ~~(D) a date by which final compliance shall be achieved.~~
- 36 ~~(3) The final compliance date under Subparagraph (2)(D) of this Paragraph shall be no later than July
37 1, 2001.~~

1 ~~The owner or operator shall certify to the Director within five days after the deadline, for each increment of progress,~~
2 ~~whether the required increment of progress has been met.~~

3 (j)(i) The owner or operator of a facility that begins construction after June 30, 1996, shall be in compliance with this
4 Rule before beginning operation.

5

6 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5);*

7 *Eff. July 1, 1996;*

8 *Amended Eff. June 1, 2018; April 1, ~~2001~~, 2001;*

9 *Readopted Eff*

1 15A NCAC 02D .0541 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0541 CONTROL OF EMISSIONS FROM ABRASIVE BLASTING**

4 (a) For the purpose of this Rule, the following definitions apply:

5 (1) "Abrasives" means any material used in abrasive blasting operations.

6 (2) "Abrasive blasting" means the operation of cleaning or preparing a surface by forcibly propelling a
7 stream of abrasive material against the surface. Sandblasting is one form of abrasive blasting.

8 (3) "Abrasive blasting equipment" means any equipment used in abrasive blasting operations.

9 ~~(4) "Fugitive dust emissions" means emissions of particulate matter into the outdoor atmosphere that is
10 not vented or captured by a stack or chimney.~~

11 ~~(4)(5)~~ "Building" means a structure with four or more sides and a roof that is used, in whole or in part, to
12 house or contain abrasive blasting.

13 ~~(5) "Fugitive dust emissions" means emissions of particulate matter into the outdoor atmosphere that is
14 not vented or captured by a stack or chimney.~~

15 (b) The owner or operator shall ensure that any abrasive blasting operation conducted outside a building or conducted
16 indoors and vented to the atmosphere is performed in accordance with the requirements set forth in 15A NCAC ~~2D~~
17 02D .0521, Control of Visible Emissions. For the purposes of this Rule, the visible emissions reading for abrasive
18 blasting performed outside a building shall be taken at a spot approximately one meter above the point of abrasive
19 blasting with a viewing distance of approximately five meters.

20 (c) Except as provided in Paragraph (d) of this Rule, all abrasive blasting operations shall be conducted within a
21 building.

22 (d) An abrasive blasting operation conducted under one or more of the following conditions is not required to be
23 conducted within a building:

24 (1) when the item to be blasted exceeds eight feet in any dimension;

25 (2) when the surface being blasted is situated at its permanent location or not further away from its
26 permanent location than is necessary to allow the surface to be blasted; or

27 (3) when the abrasive blasting operation is conducted at a private residence or farm and the visible
28 emissions created by this abrasive blasting operation do not migrate beyond the property boundary
29 of the private residence or farm on which the abrasive blasting operation is being conducted.

30 (e) The owner or operator of any abrasive blasting operation conducted in accordance with Subparagraphs (d)(1) and
31 (d)(2) of this Rule, outside a building, shall take appropriate measures to ensure that the fugitive dust emissions created
32 by the abrasive blasting operation do not migrate beyond the property boundaries in which the abrasive blasting
33 operation is being conducted. Appropriate measures include the following:

34 (1) the addition of a suppressant to the abrasive blasting material;

35 (2) wet abrasive blasting;

36 (3) hydroblasting;

37 (4) vacuum blasting;

- 1 (5) shrouded blasting; or
- 2 (6) shrouded hydroblasting.

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*History Note: Authority G.S. 143-215.3(a)(1); 143-215.108(c)(7); 143-215.108(d)(1);
Eff. July 1, ~~2000~~, 2000;
Readopted Eff. _____.*

1 15A NCAC 02D .0542 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0542 CONTROL OF PARTICULATE EMISSIONS FROM COTTON GINNING**
4 **OPERATIONS**

5 (a) Purpose. The purpose of this Rule is to establish control requirements for particulate emissions from cotton ginning
6 operations.

7 (b) Definitions. For the purposes of this Rule, the following definitions apply:

8 (1) "1D-3D cyclone" means any cyclone-type collector of the 1D-3D configuration. This designation
9 refers to the ratio of the cylinder to cone length, where D is the diameter of the cylinder portion. A
10 1D-3D cyclone has a cylinder length of 1xD and a cone length of 3xD.

11 (2) "2D-2D cyclone" means any cyclone-type collector of the 2D-2D configuration. This designation
12 refers to the ratio of the cylinder to cone length, where D is the diameter of the cylinder portion. A
13 2D-2D cyclone has a cylinder length of 2xD and a cone length of 2xD.

14 (3) "Bale" means a compressed and bound package of cotton lint, ~~nominaly~~approximately weighing
15 500 pounds.

16 (4) "Existing facility" means a cotton ginning operation ~~that operated~~ site operating prior to July 1,
17 2002.

18 (5) "Ginning operation" means any facility or plant ~~that removes~~ removing seed, lint, ~~and~~ trash, ~~or one~~
19 ~~or more~~ any combination of these from raw cotton or bales of lint cotton.

20 (6) "Ginning season" means the period of time during which the gin is in operation, which is generally
21 from September of the current year through January of the following year.

22 (7) "High pressure exhausts" means the exhaust air systems at a cotton gin ~~that are~~ not defined as "low
23 pressure exhausts."

24 (8) "Low pressure exhausts" means the exhaust cotton handling systems located at a cotton gin that
25 handle air from the cotton lint handling system and battery condenser.

26 (c) Applicability. This rule applies to all ~~existing, new, new, existing,~~ and modified cotton ginning operations. Existing
27 facilities with a maximum rated capacity of less than 20 bales per hour that do not have cyclones on lint cleaners and
28 battery condensers as of July 1, 2002 are not ~~be~~ required to add:

29 (1) the emission control devices in ~~Paragraph Subparagraph~~ (d)(1) of this Rule to lint cleaning exhausts
30 if emissions from the lint cleaning are controlled by fine mesh screens; and

31 (2) the emission control devices in ~~Paragraph Subparagraph~~ (d)(2) of this Rule to battery condenser
32 exhausts if the emissions from the battery condenser are controlled by fine mesh screens.

33 (d) Emission Control Requirements. The owner or operator of each cotton ginning operation shall control particulate
34 emissions from the facility by controlling:

35 (1) all high pressure exhausts and lint cleaning exhausts with an emission control system ~~that~~
36 ~~includes~~including:

37 (A) one or more 1D-3D or 2D-2D cyclones to achieve 95 percent efficiency; or

1 (B) a device with a minimum of 95 percent efficiency.

2 (2) low pressure exhausts, except lint cleaning exhausts, by an emission control system ~~that~~
3 ~~includes:~~including:

4 (A) one or more 1D-3D or 2D-2D cyclones to achieve 90 percent efficiency; or

5 (B) a device with at least a 90 percent efficiency.

6 Efficiency is based on the removal of particulate matter between the cyclone's inlet and outlet; it is measured using
7 test methods in ~~Section .2600 of this Subchapter.~~ 15A NCAC 02D .2600.

8 (e) ~~Raincaps-Exhaust Rain Caps.~~ Exhausts from emission points or control devices shall not be equipped with
9 ~~raincaps exhaust rain caps~~ or other devices that deflect the emissions downward or outward.

10 (f) Operation and Maintenance. To ensure ~~that~~ optimum control efficiency is maintained, the owner or operator shall
11 establish, based on manufacturers recommendations, an inspection and maintenance schedule for the control devices,
12 other emission processing equipment, and monitoring devices ~~that are~~ used pursuant to this Rule. The inspection and
13 maintenance schedule shall be followed throughout the ginning season. The results of the inspections and any
14 maintenance performed on the control equipment, emission processing equipment, or monitoring devices shall be
15 recorded in the log book required in Paragraph (k) of this Rule.

16 (g) Fugitive Emissions. The owner or operator shall minimize fugitive emissions from cotton ginning operations as
17 follows.

18 (1) The owner or operator of a

19 (A) trash stacker shall:

20 (i) install, maintain, and operate a three sided enclosure with a roof whose sides are
21 high enough above the opening of the dumping device to prevent wind from
22 dispersing dust or debris; or

23 (ii) install, maintain, and operate a device to provide wet suppression at the dump area
24 of the trash cyclone and minimize free fall distance of waste material exiting the
25 trash ~~eyclone; or cyclone.~~

26 (B) trash stacker/trash composting system shall: install, maintain, and operate a wet
27 suppression system providing dust suppression in the auger box assembly and at the dump
28 area of the trash stacker system. The owner or operator shall keep the trash material wet
29 and compost it in place until the material is removed from the dump area for additional
30 composting or disposal.

31 (2) Gin Yard. The owner or operator shall clean and dispose of accumulations of trash or lint on the
32 non-storage areas of the gin yard daily.

33 (3) Traffic areas. The owner or operator shall clean paved roadways, parking, and other traffic areas at
34 the facility as necessary to prevent re-entrainment of dust or debris. The owner or operator shall
35 treat unpaved roadways, parking, and other traffic areas at the facility with wet or chemical dust
36 suppressant as necessary to prevent dust from leaving the facility's property and shall install and

1 maintain signs limiting vehicle speed to 10 miles per hour where chemical suppression is used and
2 to 15 miles per hour where wet suppression is used.

- 3 (4) Transport of Trash Material. The owner or operator shall ensure ~~that~~ all trucks transporting gin trash
4 material are covered and ~~that~~ the trucks are cleaned of over-spill material before trucks leave the
5 trash hopper dump area. The dump area shall be cleaned daily.

6 (h) Alternative Control Measures. The owner or operator of a ginning operation may petition for use of alternative
7 control measures to those specified in this Rule. The petition shall include:

- 8 (1) the name and address of the petitioner;
9 (2) the location and description of the ginning operation;
10 (3) a description of the alternative control measure;
11 (4) a demonstration ~~that~~ the alternative control ~~measure is at least as effective as~~ measure's effectiveness
12 is equal to or greater than the control device or method specified in this Rule.

13 (i) Approval of Alternative Control Measure. The Director shall approve the alternative control measure if he or she
14 ~~finds that:~~ finds:

- 15 (1) all the information required by Paragraph (h) of this Rule has been submitted; and
16 (2) the alternative control ~~measure is at least as effective as~~ measure's effectiveness is equal to or greater
17 than the control device or method specified in this Rule.

18 (j) Monitoring.

- 19 (1) The owner or operator of each ginning operation shall install, maintain, and calibrate monitoring
20 devices ~~that measure~~ measuring pressures, rates of flow, and other operating conditions necessary
21 to determine if the control devices ~~are functioning~~ function properly.

- 22 (2) Before or during the first week of operation of the 2002-2003 ginning season, the owner or operator
23 of each gin shall conduct a baseline study of the entire dust collection system, without cotton being
24 processed, to ensure air flows ~~are stay~~ within the design range for each collection device. For 2D-
25 2D cyclones the air flow design range is 2600 to 3600 feet per minute. For 1D-3D cyclones the
26 design range is 2800 to 3600 feet per minute. For other control devices the air flow design range is
27 that found in the manufacturer's specifications. Gins constructed after the 2002-2003 ginning season
28 shall conduct the baseline study before or during the first week of operation of the first ginning
29 season following construction. During the baseline study the owner or operator shall measure or
30 determine according to the methods specified in this Paragraph and record in a logbook:

- 31 (A) the calculated inlet velocity for each control device; and
32 (B) the pressure drop across each control device.

33 The owner or operator shall use Method 1 and Method 2 of 40 CFR Part 60 Appendix A to measure
34 flow and static pressure and determine inlet velocity or the USDA method for determining duct
35 velocity and static pressure in Agricultural Handbook Number 503, *Cotton Ginners Handbook*,
36 dated December 1994. The Cotton Ginners Handbook method shall only be used where test holes
37 are located a minimum of eight and one-half pipe diameters downstream and one and one-half pipe

1 diameters upstream from elbows, valves, dampers, changes in duct diameter or any other flow
2 disturbances. Where Method 2 is used a standard pitot tube may be used in lieu of the s-pitot
3 specified in Method 2 subject to the conditions specified in Paragraph 2.1 of Method 2.

4 (3) On a monthly basis following the baseline study, the owner or operator shall measure and record in
5 the logbook the static pressure at each port where the static pressure was measured in the baseline
6 study. Measurements shall be made using a manometer, a Magnahelic® gauge, or other device ~~that~~
7 the Director ~~has approved~~ approves as being equivalent to a manometer. If the owner or operator
8 measures a change in static pressure of 20 percent or more from that measured in the baseline study,
9 the owner or operator shall initiate corrective action. Corrective action shall be recorded in the
10 logbook. If corrective action will take more than 48 hours to complete, the owner or operator shall
11 notify the regional supervisor of the region in which the ginning operation is located as soon as
12 possible, but by no later than the end of the day such static pressure is measured.

13 (4) When any design changes to the dust control system are made, the owner or operator shall conduct
14 a new baseline study for that portion of the system and shall record the new values in the logbook
15 required in Paragraph (k) of this Rule. Thereafter monthly static pressure readings for that portion
16 of the system shall be compared to the new values.

17 (5) During the ginning season, the owner or operator shall daily inspect for structural integrity of the
18 control devices and other emissions processing systems and shall ensure that the control devices and
19 emission processing systems conform to normal and proper operation of the gin. If a problem is
20 found, corrective action shall be taken and recorded in the logbook required in Paragraph (k) of this
21 Rule.

22 (6) At the conclusion of the ginning season, the owner or operator shall conduct an inspection of the
23 facility to identify all scheduled maintenance activities and repairs needed relating to the
24 maintenance and proper operation of the air pollution control devices for the next season. Any
25 deficiencies identified through the inspection shall be corrected before beginning operation of the
26 gin for the next season.

27 (k) Recordkeeping. The owner operator shall establish and maintain on-site a logbook documenting the following
28 items:

- 29 (1) Results of the baseline study as specified in ~~Paragraph Subparagraph~~ (j)(2) of this Rule;
- 30 (2) Results of new baseline studies as specified in ~~Paragraph Subparagraph~~ (j)(4) of this Rule;
- 31 (3) Results of monthly static pressure checks and any corrective action taken as specified in ~~Paragraph~~
32 Subparagraph (j)(3) of this Rule;
- 33 (4) Observations from daily inspections of the facility and any resulting corrective actions taken as
34 required in ~~Paragraph Subparagraph~~ (j)(5) of this Rule; and
- 35 (5) A copy of the manufacturer's specifications for each type of control device installed.

36 The logbook shall be maintained on site and made available to Division representatives upon request.

37 (l) Reporting. The owner or operator shall submit by March 1 of each year a report containing the following:

- 1 (1) the name and location of the cotton gin;
- 2 (2) the number of bales of cotton produced during the previous ginning season;
- 3 (3) a maintenance and repair schedule based on inspection of the facility at the conclusion of the
- 4 previous cotton ginning season required in ~~Paragraph Subparagraph~~ (j)(6) of this Rule; and
- 5 (4) signature of the ~~appropriate~~ responsible official as identified in 15A NCAC 02Q ~~.0304(j)~~, certifying
- 6 as to the truth and accuracy of the report. .0303.

7 (m) Compliance Schedule. Existing sources shall comply as specified in Paragraph (d) of this Rule. New and modified
8 sources shall be in compliance upon start-up.

9 (n) Record retention. The owner or operator shall retain all records required to be kept by this Rule for three years
10 from the date of recording.

11
12 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
13 *Eff. August 1, 2002;*
14 *Amended Eff. June 1, ~~2008~~ 2008;*
15 *Readopted Eff._____.*
16
17

1 15A NCAC 02D .0543 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0543 BEST AVAILABLE RETROFIT TECHNOLOGY**

4 (a) For the purposes of this Rule, the definitions at 40 CFR 51.301 shall apply.

5 (b) Mandatory Class I Federal areas are identified in 40 CFR Part 81, Subpart D.

6 (c) The Director shall have the maximum flexibility allowed ~~under~~ pursuant to 40 CFR 51.308 or 40 CFR Part 51,
7 Appendix Y.

8 (d) This rule applies to BART-eligible sources ~~as determined using 40~~ meeting the requirements of 40 CFR Part 51,
9 Appendix Y ~~that cause or contribute causing or contributing~~ to any visibility impairment in a mandatory Class I
10 Federal area as determined ~~by~~ using 40 CFR Part 51, Subpart P.

11 (e) Unless exempted ~~under~~ pursuant to 40 CFR 51.303, the owner or operator of a BART-eligible emission unit
12 subject to this Rule shall perform a best available retrofit technology (BART) ~~evaluation for that emission unit.~~
13 evaluation. Pursuant to 40 CFR 51.308, the evaluation shall include:

- 14 (1) the technology ~~available,~~ available;
- 15 (2) the cost of ~~compliance,~~ compliance;
- 16 (3) the energy and non-air quality environmental impacts of ~~compliance,~~ compliance;
- 17 (4) any pollution control equipment in use at ~~source,~~ the source;
- 18 (5) the remaining useful life of the ~~source,~~ source; and
- 19 (6) the degree of improvement in visibility ~~that may reasonably be~~ anticipated to result from the use of
20 such technology.

21 (f) The owner or operator of a BART-subject emission unit shall install, operate, and maintain BART as approved by
22 the Director after considering the ~~six items~~ factors listed in Paragraph (e) of this Rule and incorporated in the unit's
23 permit issued ~~under~~ pursuant to 15A NCAC 02Q.

24 ~~(g) The owner or operators of a BART-eligible source required to install BART under this Rule shall submit permit~~
25 ~~applications for the installation and operation of BART by September 1, 2006. The Director shall extend the deadline~~
26 ~~for submitting a permit application if additional time is needed to complete the evaluation required under Paragraph~~
27 ~~(e) of this Rule.~~

28 ~~(h)(g)~~ BART shall be determined using "Guidelines for Determining Best Available Retrofit Technology for Coal-
29 fired Power Plants and Other Existing Stationary Facilities" (1980), 40 CFR 51.308(e)(1)(ii), and 40 CFR Part 51,
30 Appendix Y. ~~Electric generating units covered under and complying with 15A NCAC 02D .2400, Clean Air Interstate~~
31 ~~Rules, are considered to be in compliance with the BART requirements for nitrogen oxides and sulfur dioxide under~~
32 ~~this Rule.~~

33 ~~(i) The owner or operator of a BART-eligible source required to install BART under this Rule shall have installed~~
34 ~~and begun operation of the BART controls by December 31, 2012.~~

35 ~~(j)(h)~~ "Guidelines for Determining Best Available Retrofit Technology for Coal-fired Power Plants and Other
36 Existing Stationary Facilities" is incorporated by reference, exclusive of appendix E, and shall include any later
37 amendments or editions. This document, which was published in the Federal Register on February 6, 1980 (45 FR

1 8210), is EPA publication No. 450/3-80-009b and can be obtained from the National Service Center for
2 Environmental Publications (NSCEP) available for free through their online publication search tool at:
3 <https://www.epa.gov/nscep>. The document is also available through the U.S. Department of Commerce, National
4 Technical Information Service located at 5301 Shawnee Road Alexandria, VA 22312. ~~5285 Port Royal Road,~~
5 ~~Springfield, Virginia 22161 for eighty four dollars (\$84.00).~~ It is also available for inspection at the National
6 Archives and Records Administration (NARA). Information on the availability of this material at NARA may be
7 found at: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

8

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

10 *Eff. September 1, 2006;*

11 *Amended Eff. May 1, ~~2007-2007~~;*

12 *Readopted Eff. _____.*

13

14

1 15A NCAC 02D .0544 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0544 PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS FOR**
4 **GREENHOUSE GASES**

5 (a) The purpose of this Rule is to implement a program for the prevention of significant deterioration of air quality
6 for greenhouse gases as required by 40 CFR 51.166. Wherever the language of the portions of 40 CFR 51.166
7 referenced in this Paragraph speaks of the "plan," the requirements described therein shall apply to the source to which
8 they pertain, except as otherwise provided in this Rule. Whenever the portions of 40 CFR 51.166 referenced in this
9 Paragraph provide that the State plan may exempt or not apply certain requirements in certain circumstances, those
10 exemptions and provisions of nonapplicability are also hereby adopted under this Rule. However, this provision shall
11 not be interpreted so as to limit information that may be requested from the owner or operator by the Director as
12 specified in 40 CFR 51.166(n)(2). For purposes of greenhouse gases, the provisions of this Rule shall apply rather
13 than the provisions ~~of Rule .0530 of this Section.~~ in 15A NCAC 02D .0530. A major stationary source or major
14 modification shall not be required to obtain a prevention of significant deterioration (PSD) permit on the sole basis of
15 its greenhouse gases emissions. For all other regulated new source review (NSR) pollutants, the provisions ~~of Rule~~
16 ~~.0530 of this Section~~ in 15A NCAC 02D .0530 shall apply.

17 (b) For the purposes of this Rule, the definitions contained in 40 CFR 51.166(b) and 40 CFR 51.301 shall apply except
18 the definition of "baseline actual emissions." "Baseline actual emissions" means the rate of emissions, in tons per year,
19 of a regulated NSR pollutant, as determined in accordance with Subparagraphs (1) through (3) of this Paragraph:

20 (1) For an existing emissions unit, baseline actual emissions means the average rate, in tons per year, at
21 which the emissions unit emitted the pollutant during any consecutive 24-month period selected by
22 the owner or operator within the 5-year period preceding the date that a complete permit application
23 is received by the Division for a permit required under this Rule. The Director shall allow a different
24 time period, not to exceed 10 years preceding the date that a complete permit application is received
25 by the Division, if the owner or operator demonstrates that it is more representative of normal source
26 operation. For the purpose of determining baseline actual emissions, the following shall apply:

27 (A) The average rate shall include fugitive emissions to the extent quantifiable, and emissions
28 associated with startups, shutdowns, and malfunctions;

29 (B) The average rate shall be adjusted downward to exclude any non-compliant emissions that
30 occurred while the source was operating above any emission limitation that was legally
31 enforceable during the consecutive 24-month period;

32 (C) For an existing emission ~~unit (other unit, other~~ than an electric utility steam generating
33 ~~unit), unit,~~ unit, the average rate shall be adjusted downward to exclude any emissions that
34 would have exceeded an emission limitation with which the major stationary source shall
35 currently comply. However, if the State has taken credit in an attainment demonstration or
36 maintenance plan consistent with the requirements of 40 CFR 51.165(a)(3)(ii)(G) for an
37 emission limitation that is part of a maximum achievable control technology standard that

1 the Administrator proposed or promulgated under part 63 of the Code of Federal
2 Regulations, the baseline actual emissions shall be adjusted to account for such emission
3 reductions;

4 (D) For an electric utility steam generating unit, the average rate shall be adjusted downward
5 to reflect any emissions reductions under G.S. 143-215.107D and for which cost recovery
6 is sought pursuant to G.S. 62-133.6;

7 (E) For a regulated NSR pollutant, when a project involves multiple emissions units, only one
8 consecutive 24-month period shall be used to determine the baseline actual emissions for
9 all the emissions units being changed. A different consecutive 24-month period for each
10 regulated NSR pollutant can be used for each regulated NSR pollutant; and

11 (F) The average rate shall not be based on any consecutive 24-month period for which there is
12 inadequate information for determining annual emissions, in tons per year, and for
13 adjusting this amount if required by Parts (B) and (C) of this Subparagraph;

14 (2) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions
15 increase that will result from the initial construction and operation of such unit shall equal zero; and
16 thereafter, for all other purposes, shall equal the unit's potential to emit; and

17 (3) For a plantwide applicability limit (PAL) for a stationary source, the baseline actual emissions shall
18 be calculated for existing emissions units in accordance with the procedures contained in
19 Subparagraph (1) of this Paragraph and for a new emissions unit in accordance with the procedures
20 contained in Subparagraph (2) of this Paragraph.

21 (c) In the definition of "net emissions increase," the reasonable period specified in 40 CFR 51.166(b)(3)(ii) shall be
22 seven years.

23 (d) In the definition of "subject to regulation", a greenhouse gas's global warming potential is the global warming
24 potential published at Table A-1 of Subpart A of 40 CFR Part 98 and shall include subsequent amendments and
25 editions.

26 (e) The limitation specified in 40 CFR 51.166(b)(15)(ii) shall not apply.

27 (f) Major stationary sources and major modifications shall comply with the requirements contained in 40 CFR
28 51.166(i) and (a)(7) and by extension in 40 CFR 51.166(j) through (o) and (w). ~~The transition provisions allowed by~~
29 ~~40 CFR 52.21 (i)(11)(i) and (ii) and (m)(1)(vii) and (viii) are hereby adopted under this Rule. The minimum~~
30 ~~requirements described in the portions of 40 CFR 51.166 referenced in this Paragraph are hereby adopted as the~~
31 ~~requirements to be used under this Rule, except as otherwise provided in this Rule. Wherever the language of the~~
32 ~~portions of 40 CFR 51.166 referenced in this Paragraph speaks of the "plan," the requirements described therein shall~~
33 ~~apply to the source to which they pertain, except as otherwise provided in this Rule. Whenever the portions of 40 CFR~~
34 ~~51.166 referenced in this Paragraph provide that the State plan may exempt or not apply certain requirements in certain~~
35 ~~circumstances, those exemptions and provisions of nonapplicability are also hereby adopted under this Rule. However,~~
36 ~~this provision shall not be interpreted so as to limit information that may be requested from the owner or operator by~~
37 ~~the Director as specified in 40 CFR 51.166(n)(2).~~

1 (g) 40 CFR 51.166(w)(10)(iv)(a) is changed to read: "If the emissions level calculated in accordance with Paragraph
2 (w)(6) of this Section is equal to or greater than 80 percent of the PAL [plant wide applicability limit] level, the
3 Director shall renew the PAL at the same level." 40 CFR 51.166(w)(10)(iv)(b) is not incorporated by reference.

4 (h) 15A NCAC 02Q .0102 ~~and .0302~~ ~~are~~ ~~is~~ not applicable to any source to which this Rule applies. The owner or
5 operator of the sources to which this Rule applies shall apply for and receive a permit as required in 15A NCAC 02Q
6 .0300 or .0500.

7 (i) When a particular source or modification becomes a major stationary source or major modification solely by virtue
8 of a relaxation in any enforceable limitation that was established after August 7, 1980, on the capacity of the source
9 or modification to emit a pollutant, such as a restriction on hours of operation, then the provisions of this Rule shall
10 apply to the source or modification as though construction had not yet begun on the source or modification.

11 (j) The provisions of 40 CFR 52.21(r)(2) regarding the period of validity of approval to construct are incorporated by
12 reference except that the term "Administrator" is replaced with "Director".

13 (k) Permits may be issued based on innovative control technology as set forth in 40 CFR 51.166(s)(1) if the
14 requirements of 40 CFR 51.166(s)(2) have been met, subject to the condition of 40 CFR 51.166(s)(3), and with the
15 allowance set forth in 40 CFR 51.166(s)(4).

16 (l) A permit application subject to this Rule shall be processed in accordance with the procedures and requirements
17 of 40 CFR 51.166(q). Within 30 days of receipt of the application, applicants shall be notified if the application is
18 complete as to initial information submitted. Commencement of construction before full prevention of significant
19 deterioration approval is obtained constitutes a violation of this Rule.

20 (m) Approval of an application with regard to the requirements of this Rule shall not relieve the owner or operator of
21 the responsibility to comply with applicable provisions of other rules of this Subchapter or Subchapter 02Q of this
22 Title and any other requirements under local, ~~state~~, State, or federal law.

23 (n) In the lieu of the requirements in 40 CFR 51.166(r)(6) and (7), the following shall apply. If the owner or operator
24 of a source is using projected actual emissions to avoid applicability of prevention of significant deterioration
25 requirements, the owner or operator shall ~~notify~~ submit an application to the Director of the modification before
26 beginning actual construction. The ~~notification~~ application shall include:

- 27 (1) a description of the project;
- 28 (2) identification of sources whose emissions could be affected by the project;
- 29 (3) the calculated projected actual emissions and an explanation of how the projected actual emissions
30 were calculated, including identification of emissions excluded by 40 CFR 51.166(b)(40)(ii)(c);
- 31 (4) the calculated baseline actual emissions and an explanation of how the baseline actual emissions
32 were calculated; and
- 33 (5) any netting calculations, if applicable.

34 If upon reviewing the ~~notification~~, application, the Director finds that the project will cause a prevention of significant
35 deterioration evaluation, then the Director shall notify the owner or operator of his or her findings. The owner or
36 operator shall not make the modification until the owner or operator has received a permit issued pursuant to this Rule.

37 ~~If a permit revision is not required pursuant to this Rule, the~~ The owner or operator shall maintain records of annual

1 emissions in tons per year, on a calendar year basis related to the modifications for 10 years following resumption of
2 regular operations after the change if the project involves increasing the emissions unit's design capacity or its potential
3 to emit the regulated NSR pollutant; otherwise these records shall be maintained for five years following resumption
4 of regular operations after the change. The owner or operator shall submit a report to the Director within 60 days after
5 the end of each year during which these records must be generated. The report shall contain the items listed in 40 CFR
6 51.166(r)(6)(v)(a) through (c). The owner or operator shall make the information documented and maintained under
7 this Paragraph available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).
8 (o) ~~The references to Portions of the regulations in~~ the Code of Federal Regulations (CFR) that are referred to in this
9 Rule are incorporated by reference unless a specific reference states otherwise. The version of the CFR incorporated
10 in this ~~Rule~~ Rule, with respect to 40 CFR 51.166, is that as of ~~July 20, 2011~~ July 1, 2019 ~~as set forth here~~
11 ~~<http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol2/pdf/CFR-2011-title40-vol2-sec51-166.pdf>,~~
12 ~~<http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol3/pdf/CFR-2011-title40-vol3-sec52-21.pdf>,~~ and with the
13 ~~amendment set forth on 76 FR 43507 at <http://www.gpo.gov/fdsys/pkg/FR-2011-07-20/pdf/2011-17256.pdf> at~~
14 ~~<https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol2/pdf/CFR-2019-title40-vol2-sec51-166.pdf> and does~~
15 not include any subsequent amendments or ~~editions to the referenced material.~~ editions. Federal regulations
16 referenced in 40 CFR 51.166 shall include subsequent amendments and editions. This Rule is applicable in accordance
17 with 40 CFR 51.166(b)(48) and (b)(49)(iv) and (v).

18
19 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3); 143-215.107(a)(5); 143-215.107(a)(7); 143-*
20 *215.108(b); 150B-21.6;*
21 *Eff. January 28, 2011 pursuant to E.O. 81, Beverly E. Perdue;*
22 *Pursuant to G.S. 150B-21.3(c), a bill was not ratified by the General Assembly to disapprove this*
23 *rule;*
24 *Temporary Amendment Eff. December 23, 2011;*
25 *Amended Eff. July 1, 2012;*
26 *Temporary Amendment Eff. December 2, 2014;*
27 *Amended Eff. September 1, ~~2015-2015~~;*
28 *Readopted Eff. _____.*

1 15A NCAC 02D .0615 is proposed for repeal through readoption as follows:

2

3 ~~15A NCAC 02D .0615~~ — **DELEGATION**

4 ~~The Director may delegate his administrative and approval functions under this Section to the Deputy Director,~~
5 ~~regional air quality supervisor, or any supervisor in the Permitting, Ambient Monitoring, or Technical Services Section~~
6 ~~of the Division as he considers appropriate.~~

7

8 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(4);*

9

Eff. April 1, 1999-1999;

10

Repealed Eff.

1 15A NCAC 02D .0901 is proposed for readoption without substantive changes as follows:

2
3 **SECTION .0900 - VOLATILE ORGANIC COMPOUNDS**

4
5 **15A NCAC 02D .0901 DEFINITIONS**

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

- 7 (1) "Coating" means a functional, protective, or decorative film applied in a thin layer to a surface.
- 8 (2) "Coating applicator" means an apparatus used to apply a surface coating.
- 9 (3) "Coating line" means one or more apparatus or operations in a single line ~~wherein~~ at which point a
10 surface coating is applied, dried, or cured and which include a coating applicator and flashoff area
11 and may include an oven or associated control devices.
- 12 (4) "Continuous vapor control system" means a vapor control system which treats vapors displaced
13 from tanks during filling on a demand basis without intermediate accumulation.
- 14 (5) "Delivered to the applicator" means the condition of coating after dilution by the user just before
15 application to the substrate.
- 16 (6) "Flashoff area" means the space between the application area and the oven.
- 17 (7) "High solids coating" means a coating which contains a higher percentage of solids and a lower
18 percentage of volatile organic compounds and water than conventional organic solvent borne
19 coatings.
- 20 (8) "Hydrocarbon" means any organic compound of carbon and hydrogen only.
- 21 (9) "Incinerator" means a combustion apparatus designed for high temperature operation in which solid,
22 semisolid, liquid, or gaseous combustible wastes are ignited and burned efficiently and from which
23 the solid and gaseous residues contain little or no combustible material.
- 24 (10) "Intermittent vapor control system" means a vapor control system which employs an intermediate
25 vapor holder to accumulate vapors displaced from tanks during filling. The control device treats the
26 accumulated vapors only during automatically controlled cycles.
- 27 (11) "Loading rack" means an aggregation or combination of loading equipment arranged so that all
28 loading outlets in the combination equipment can be connected to a cargo tank-truck or trailer parked
29 in a specified loading space.
- 30 (12) "Low solvent coating" means a coating which contains a substantially lower amount of volatile
31 organic compounds than conventional organic solvent borne coatings; it usually falls into one of
32 three major groups of high solids, waterborne, or powder coatings.
- 33 (13) "Organic material" means a chemical compound of carbon excluding carbon monoxide, carbon
34 dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.
- 35 (14) "Oven" means a chamber ~~within which heat is used to~~ bake, cure, polymerize, or dry a surface
36 coating, coating using heat.

- 1 (15) "Potential emissions" means the quantity of a pollutant which would be emitted at the maximum
2 capacity of a stationary source to emit the pollutant under its physical and operational design. Any
3 physical or operational limitation on the capacity of the source to emit a pollutant, including air
4 pollution control equipment and restrictions on hours of operation or on the type or amount of
5 material combusted, stored, or processed, shall be treated as part of its design if the limitation or the
6 effect it would have on emissions is described or contained as a condition in the federally
7 enforceable permit. Secondary emissions do not count in determining potential emissions of a
8 stationary source. Fugitive emissions count, to the extent quantifiable, in determining the potential
9 emissions only in these cases:
- 10 (a) petroleum refineries;
11 (b) chemical process plants; and
12 (c) petroleum storage and transfer units with a total storage capacity exceeding 300,000
13 barrels.
- 14 (16) "Prime coat" means the first film of coating applied to a surface to protect it or to prepare it to
15 receive subsequent coatings.
- 16 (17) "Reasonably available control technology" ~~(also also denoted as RACT)~~ "RACT", means the lowest
17 emission limit ~~which~~ a particular source is capable of meeting by the application of control
18 technology that is reasonably available considering technological and economic feasibility. It may
19 require technology ~~which that~~ has been applied to similar, but not necessarily identical, source
20 categories.
- 21 (18) "Reid vapor pressure" means the absolute vapor pressure of volatile crude oil and volatile
22 nonviscous petroleum liquids except liquefied petroleum gases as determined by American Society
23 for Testing and Materials, Part 17, 1973, D 323-72 (reapproved 1977). Materials test method D323-
24 15A.
- 25 (19) "Shutdown" means the cessation of operation of a source or a part thereof or emission control
26 equipment.
- 27 (20) "Solvent" means organic materials which are liquid at standard conditions and which are used as
28 dissolvers, viscosity reducers, or cleaning agents.
- 29 (21) "Standard conditions" means a temperature of ~~68 degrees~~ 68 degrees Fahrenheit and pressure of
30 29.92 inches of mercury.
- 31 (22) ~~"Stage I"~~, "Stage I" means vapor control systems that minimize, collect, and transfer vapors in a
32 gasoline storage tank, displaced by the incoming gasoline, ~~which vapors~~ are routed through pipes
33 and hoses back into the ~~tank truck cargo~~ tank to be transported to where the ~~truck tank~~ is loaded and
34 the vapors are recovered or destroyed. Vent lines on storage tanks with vapor control systems use
35 pressure release valves or flow restrictors to minimize releases to the atmosphere.
- 36 (23) "Startup" means the setting in operation of a source or emission control equipment.
- 37 (24) "Substrate" means the surface to which a coating is applied.

- 1 (25) "Topcoat" means the final films of coating applied in a multiple or single coat operation.
- 2 (26) "True vapor pressure" means the equilibrium partial pressure exerted by a petroleum liquid as
- 3 determined in accordance with methods described in American Petroleum Institute ~~Bulletin 2517,~~
- 4 ~~"Evaporation Loss from Floating Roof Tanks," 1962.~~ Manual of Petroleum Measurement
- 5 Standards, Chapter 19.2, Evaporative Loss From Floating-Roof Tanks.
- 6 (27) "Vapor collection system" means a vapor transport system which uses direct displacement by the
- 7 liquid loaded to force vapors from the tank into a vapor control system.
- 8 (28) "Vapor control system" means a system which prevents release to the atmosphere of at least 90
- 9 percent by weight of organic compounds in the vapors displaced from a tank during the transfer of
- 10 gasoline.
- 11 (29) "Volatile organic compound" ~~(also also~~ denoted as ~~VOC)~~ "VOC", means any compound of carbon
- 12 whose volatile content can be determined by the procedure described in ~~Section 2600-15A NCAC~~
- 13 02D .2600 of this Subchapter excluding any compound that is listed under 40 CFR 51.100(s) as
- 14 having been determined to have negligible photochemical reactivity.
- 15

16 *History Note: Authority G.S. 143-215.3(a)(1);*

17 *Eff. July 1, 1979;*

18 *Amended Eff. January 1, 2009; June 1, 2008; July 1, 1996; December 1, 1993; July 1, 1991;*

19 *March 1, 1991; December 1, ~~1989-1989~~;*

20 *Readopted Eff. _____.*

21

22

1 15A NCAC 02D .0902 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0902 APPLICABILITY**

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

5 (b) This Section applies to sources that emit greater than or equal to 15 pounds of volatile organic compounds per
6 day unless specified otherwise in this Section.

7 (c) Rules 15A NCAC 02D .0925, .0926, .0927, .0928, .0931, .0932, .0933, and .0958 ~~of this Section~~ apply regardless
8 of the level of emissions of volatile organic compounds unless the provisions specified in Paragraph Subparagraph
9 (d)(1) of this Rule are applied.

10 (d) This Section does not apply to:

11 (1) sources that emit less than 800 pounds of volatile organic compounds per calendar month and that
12 are:

13 (A) bench-scale, on-site equipment used exclusively for chemical or physical analysis for
14 quality control purposes, staff instruction, water or wastewater analyses, or non-production
15 environmental compliance assessments;

16 (B) bench-scale experimentation, chemical or physical analyses, training or instruction from
17 not-for-profit, non-production educational laboratories;

18 (C) bench-scale experimentation, chemical or physical analyses, training or instruction from
19 hospitals or health laboratories pursuant to the determination or diagnoses of illness; or

20 (D) research and development laboratory activities, provided the activity produces no
21 commercial product or feedstock material; or

22 (2) emissions of volatile organic compounds during startup or shutdown operations from sources that
23 use incineration or other types of combustion to control emissions of volatile organic compounds
24 whenever the off-gas contains an explosive mixture during the startup or shutdown operation if the
25 exemption is approved by the Director as meeting the requirements of this Subparagraph.

26 (e) The following rules of this Section apply to facilities located statewide:

27 (1) 15A NCAC 02D .0925, Petroleum Liquid Storage in Fixed Roof Tanks, for fixed roof tanks at
28 gasoline bulk plants and gasoline bulk terminals;

29 (2) 15A NCAC 02D .0926, Bulk Gasoline Plants;

30 (3) 15A NCAC 02D .0927, Bulk Gasoline Terminals;

31 (4) 15A NCAC 02D .0928, Gasoline Service Stations Stage I;

32 (5) 15A NCAC 02D .0932, Gasoline ~~Truck Cargo~~ Tanks and Vapor Collection Systems;

33 (6) 15A NCAC 02D .0933, Petroleum Liquid Storage in External Floating Roof Tanks, for external
34 floating roof tanks at bulk gasoline plants and bulk gasoline terminals;

35 (7) 15A NCAC 02D .0948, VOC Emissions from Transfer Operations; and

36 (8) 15A NCAC 02D .0949, Storage of Miscellaneous Volatile Organic ~~Compounds; and~~ Compounds.

1 (f) Except as provided in Paragraph (e) of this Rule, the rules in this Section apply to facilities subject to Section
2 182(b)(2) of the Clean Air Act with potential to emit 100 or more tons per year of VOC and to facilities with potential
3 to emit less than 100 tons per year of volatile organic compounds in categories for which the United States
4 Environmental Protection Agency has issued Control Technique Guidelines that are located in the following moderate
5 nonattainment areas for the 1997 8-hour ozone standard as designated in 40 CFR 81.334 prior to January 2, 2014:

- 6 (1) Cabarrus County;
- 7 (2) Gaston County;
- 8 (3) Lincoln County;
- 9 (4) Mecklenburg County;
- 10 (5) Rowan County;
- 11 (6) Union County; and
- 12 (7) Davidson Township and Coddle Creek Township in Iredell County.

13 These facilities are subject to reasonably available control technology requirements under this Section and shall
14 comply with these requirements in accordance with ~~Rule .0909 of this Section through use of Rule .0951 of this~~
15 ~~Section and with Rule .0958 of this Section.~~ 15A NCAC 02D .0909 through .0951 and with 15A NCAC 02D .0958.

16 (g) If any county or part of a county to which this Section applies is later designated in 40 CFR 81.334 as attainment
17 and becomes a maintenance area for the 1997 8-hour ozone standard, all sources in that county or part of county
18 subject to Paragraph (f) of this Rule that achieved compliance in accordance with ~~Rule .0909 of this Section~~ 15A
19 NCAC 02D .0909 shall continue to comply with this Section. Facilities with potential to emit less than 100 tons of
20 volatile organic compounds per year for that year, where the compliance date in ~~Rule .0909 of this Section~~ 15A NCAC
21 02D .0909 has not passed before redesignation of the area to attainment for the 1997 ozone ~~standard~~ standard, shall
22 comply in accordance with Paragraph (h) of this Rule.

23 (h) If a violation of the 1997 ambient air quality standard for ozone occurs when the areas listed in Paragraph (f) of
24 this Rule become ozone maintenance area, no later than 10 days after the violation occurs, the Director shall initiate
25 ~~technical analysis~~ analyses to determine the control measures needed to attain and maintain the 1997 8-hour ambient
26 air quality standard for ozone. By the following May 1, the Director shall implement the specific stationary source
27 control measures contained in this Section that are required as part of the control strategy necessary to bring the area
28 into compliance and to maintain compliance with the 1997 8-hour ambient air quality standard for ozone. The Director
29 shall implement the rules in this Section identified as being necessary by the analysis by notice in the North Carolina
30 Register. The notice shall identify the rules that are to be implemented and shall identify whether the Rules
31 implemented are to apply in the areas listed in Paragraph (f) of this Rule. At least one week before the scheduled
32 publication date of the North Carolina Register containing the Director's notice implementing rules in this Section, the
33 Director shall send written notification to all permitted facilities within the counties in which the Rules of this Section
34 are being implemented notifying them that they are or may be subject to the requirements defined in ~~Rule .0909 of~~
35 ~~this Section.~~ 15A NCAC 02D .0909.

1 For Mecklenburg County, "Director" ~~means, for the purpose of notifying permitted facilities in Mecklenburg County,~~
2 means the Director of the Mecklenburg County local air pollution control ~~program.~~ program for the purpose of
3 notifying permitted facilities in Mecklenburg County.

4 (i) Sources whose emissions of volatile organic compounds that are not subject to limitation under this Section may
5 still be subject to emission limits on volatile organic compounds in ~~Rules .0524, .1110, or .1111 of this Subchapter.~~
6 15A NCAC 02D .0524, .1110, and .1111.

7

8 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

9 *Eff. July 1, 1979;*

10 *Amended Eff. November 1, 2016; May 1, 2013; September 1, 2010; January 1, 2009; July 1, 2007;*

11 *March 1, 2007; August 1, 2004; July 1, 2000; April 1, 1997; July 1, 1996; July 1, 1995; May 1,*
12 *1995; July 1, ~~1994.~~1994;*

13 *Readopted Eff. _____.*

14

15

1 15A NCAC 02D .0903 is proposed for readoption without substantive changes as follows:
2

3 **15A NCAC 02D .0903 RECORDKEEPING: REPORTING: MONITORING**

4 (a) The owner or operator of any volatile organic compound emission source or control equipment shall:

- 5 (1) install, operate, and maintain process and control equipment monitoring instruments or procedures
6 as necessary to comply with the requirements of this Section; and
7 (2) maintain, in writing, data and reports relating to monitoring instruments or procedures which will,
8 upon review, document the compliance status of the volatile organic compound emission source or
9 control equipment. Such data and reports shall be maintained daily unless otherwise specified in this
10 Section.

11 (b) The owner or operator of any volatile organic compound emission source or control equipment subject to the
12 requirements of this Section shall comply with the monitoring, recordkeeping, and reporting requirements in ~~Section~~
13 ~~.0600 of this Subchapter.~~ 15A NCAC 02D .0600.

14
15 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
16 Eff. July 1, 1979;
17 Amended Eff. May 1, 2013; April 1, 1999; July 1, 1993; July 1, 1991; December 1, 1989; January
18 1, ~~1985-1985~~;
19 Readopted Eff.

20
21 .
22

1 15A NCAC 02D .0906 is proposed for reoption without substantive changes as follows:

2

3 **15A NCAC 02D .0906 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, ~~the use of which that~~ conceals an emission which would otherwise constitute a violation of an
6 applicable ~~regulation, rule.~~

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

10

11 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

12 *Eff. July 1, 1979;*

13 *Amended Eff. January 1, ~~1985-1985~~;*

14 *Readopted Eff. _____.*

15

1 15A NCAC 02D .0909 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0909 COMPLIANCE SCHEDULES FOR SOURCES IN OZONE NONATTAINMENT**
4 **AND MAINTENANCE AREAS**

5 (a) Applicability. This Rule applies to sources located at any facility covered by Paragraphs (f) and (h) of ~~Rule .0902~~
6 ~~of this Section.~~ 15A NCAC 02D .0902.

7 (b) Exceptions. This Rule does not apply to facilities subject to ~~the rules listed under Paragraph (e) in Rule .0902 of~~
8 ~~this Section.~~ 15A NCAC 02D .0902(e). Facilities subject to ~~the rules listed in Paragraph (e) of Rule .0902~~ 15A NCAC
9 02D .0902(e) shall comply ~~in accordance~~ with the provisions of those Rules rather than the schedule in Paragraphs (c)
10 and (d) of this Rule.

11 (c) Maintenance area contingency plan. The owner or operator of any source subject to this Rule shall adhere to the
12 following increments of progress and schedules:

13 (1) If compliance with applicable rules in this Section is to be achieved by installing emission control
14 equipment, replacing process equipment, or modifying existing process equipment:

15 (A) The owner or operator shall submit a permit application and a compliance schedule within
16 six months after the Director notices the implementation of rules in the North Carolina
17 Register that resolves a violation of the ambient air quality standard for ozone;

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

19 (i) a date by which contracts for the emission control system and process equipment
20 shall be awarded or orders shall be issued for purchase of component parts;

21 (ii) a date by which on-site construction or installation of the emission control and
22 process equipment shall begin; and

23 (iii) a date by which on-site construction or installation of the emission control and
24 process equipment shall be completed; and

25 (C) Final compliance with applicable rules in this Section shall be achieved within three years
26 after the Director notices the implementation of rules in the North Carolina Register that
27 resolves a violation of the ambient air quality standard for ozone.

28 (2) If compliance with applicable rules in this Section is to be achieved by using low solvent-~~content~~
29 coating technology:

30 (A) The owner or operator shall submit a permit application and a compliance schedule within
31 six months after the Director notices the implementation of rules in the North Carolina
32 Register that resolves a violation of the ambient air quality standard for ozone;

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

34 (i) a date by which purchase orders shall be issued for low solvent-~~content~~ coatings
35 and process modifications;

36 (ii) a date by which process modifications shall be initiated; and

- 1 (iii) a date by which process modifications shall be completed and use of low solvent
2 ~~content~~ coatings shall begin; and
- 3 (C) Final compliance with applicable rules in this Section shall be achieved within two years
4 after the Director notices the implementation of rules in the North Carolina Register that
5 resolves a violation of the ambient air quality standard for ozone.
- 6 (3) The owner or operator shall certify to the Director within five days after each increment deadline of
7 progress defined in this Paragraph, whether the required increment of progress has been met.
- 8 (d) Moderate nonattainment areas. The owner or operator of any source subject to this Rule shall adhere to the
9 following increments of progress and schedules:
- 10 (1) If compliance with applicable rules in this Section is to be achieved by installing emission control
11 equipment, replacing process equipment, or modifying existing process equipment:
- 12 (A) The owner or operator shall submit a permit application and a compliance schedule by
13 August 1, 2007;
- 14 (B) The compliance schedule shall contain the following increments of progress:
- 15 (i) a date by which contracts for the emission control system and process equipment
16 shall be awarded or orders shall be issued for purchase of component parts;
- 17 (ii) a date by which on-site construction or installation of the emission control and
18 process equipment shall begin; and
- 19 (iii) a date by which on-site construction or installation of the emission control and
20 process equipment shall be completed; and
- 21 (C) For facilities with potential to emit 100 tons or more of volatile organic compounds per
22 year, final compliance with applicable rules in this Section shall be achieved no later than
23 April 1, 2009.
- 24 (D) For facilities with potential to emit less than 100 tons of volatile organic compounds per
25 year, final compliance with applicable rules in this Section shall be achieved no later than
26 May 1, 2016.
- 27 (2) If compliance with applicable rules in this Section is to be achieved by using low solvent ~~content~~
28 coating technology:
- 29 (A) The owner or operator shall submit a permit application and a compliance schedule by
30 August 1, 2007;
- 31 (B) The compliance schedule shall contain the following increments of progress:
- 32 (i) a date by which purchase orders shall be issued for low solvent ~~content~~ coatings
33 and process modifications;
- 34 (ii) a date by which process modifications shall be initiated; and
- 35 (iii) a date by which process modifications shall be completed and use of low solvent
36 ~~content~~ coatings shall begin; and

1 (C) Final compliance with applicable rules in this Section shall be achieved no later than April
2 1, 2009;

3 (D) For facilities with potential to emit less than 100 tons of volatile organic compounds per
4 year, final compliance with applicable rules in this Section shall be achieved no later than
5 May 1, 2015.

6 (3) The owner or operator shall certify to the Director within five days after the deadline, for each
7 increment of progress defined in this Paragraph, whether the required increment of progress has
8 been met.

9 (e) If the Director requires a test in ~~accordance with Section .2600 of this Subchapter~~ 15A NCAC 02D .2600 to
10 demonstrate that compliance has been achieved, the owner or operator of sources subject to this Rule shall conduct a
11 test and submit a final test report within six months after the stated date of final compliance.

12 (f) Sources already in compliance.

13 (1) Maintenance area contingency plan. Paragraph (c) of this Rule shall not apply to any source subject
14 to this Rule that is in compliance with applicable rules of this Section when the Director notices the
15 implementation of rules in the North Carolina Register that resolves a violation of the ambient air
16 quality standard for ozone and that have determined and certified compliance to the satisfaction of
17 the Director within six months after the Director notices the implementation of rules in the North
18 Carolina Register that resolves a violation of the ambient air quality standard for ozone.

19 (2) Moderate nonattainment areas. Paragraph (d) of this Rule does not apply to sources subject to this
20 Rule if they are in compliance with applicable rules of this Section on March 1, 2007.

21 (g) New sources.

22 (1) Maintenance area contingency plan. The owner or operator of any source subject to this Rule not
23 in existence or under construction before the date that the Director notices in the North Carolina
24 Register ~~in accordance with Paragraph (h) of Rule .0902 of this Section~~ the implementation of rules
25 ~~in the North Carolina Register~~ that resolves a violation of the ambient air quality standard for ozone,
26 shall comply with all applicable rules in this Section upon start-up of the source.

27 (2) Moderate nonattainment areas. The owner or operator of any new source subject to this Rule not in
28 existence or under construction before March 1, 2007 in an area identified in ~~Paragraph (f) of Rule~~
29 ~~.0902~~ 15A NCAC 02D .0902(f) shall comply with all applicable rules in this Section upon start-up
30 of the source.

31
32 *History Note Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

33 *Eff. July 1, 1979;*

34 *Amended Eff. May 1, 2013; September 1, 2010; January 1, 2009; July 1, 2007; March 1, 2007; July*
35 *1, 2000; April 1, 1997; July 1, 1995; July 1, 1994; July 1, 1988; January 1, ~~1985-1985~~;*

36 *Readopted Eff. _____.*
37

1 15A NCAC 02D .0912 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0912 GENERAL PROVISIONS ON TEST METHODS AND PROCEDURES**

4 (a) The owner or operator of any volatile organic compound source required to comply with rules in this Section shall
5 demonstrate compliance by the methods described in ~~Section 2600 of this Subchapter.~~ 15A NCAC 02D .2600, if the
6 test method is not stated in the Rule. The owner or operator of a volatile organic compound source shall demonstrate
7 compliance when the Director requests such demonstration.

8 (b) If the volatile organic compound emissions test shows noncompliance, the owner or operator of the volatile organic
9 source shall submit along with the final test ~~report~~ report, proposed corrective action.

10 (c) Compliance shall be determined on a line-by-line basis using the more stringent of the following two:

11 (1) Compliance shall be determined on a daily basis for each coating line using a weighted average, that
12 is, dividing the sum of the mass ~~(pounds)~~ in pounds of volatile organic compounds in coatings
13 consumed on that coating line, as received, and the mass ~~(pounds)~~ in pounds of volatile organic
14 compound solvents added to the coatings on that coating line by the volume ~~(gallons)~~ in gallons of
15 coating solids consumed during that day on that coating line; or

16 (2) Compliance shall be determined as follows:

17 (A) When low solvent or high solids coatings are used to reduce emissions of volatile organic
18 compounds, compliance shall be determined instantaneously.

19 (B) When add on control devices, e.g., solvent recovery systems or incinerators, are used to
20 reduce emissions of volatile organic compounds, compliance shall be determined by
21 averaging emissions over a one-hour period.

22
23 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

24 *Eff. July 1, 1979;*

25 *Amended Eff. June 1, 2008; April 1, 2003; July 1, 1993; July 1, 1991; March 1, 1991; December 1,*
26 *1989; January 1, 1985; July 1, ~~1980-1980~~;*

27 *Readopted Eff.*
28
29

1 15A NCAC 02D .0918 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0918 CAN COATING**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "End sealing compound" means a synthetic rubber compound which is coated onto can ends and
6 ~~which~~ functions as a gasket when the end is assembled on the can.
- 7 (2) "Exterior base coating" means a coating applied to the exterior of a can to provide exterior protection
8 to the metal and to provide background for the lithographic or printing operation.
- 9 (3) "Interior base coating" means a coating applied by roller coater or spray to the interior of a can to
10 provide a protective lining between the can metal and product.
- 11 (4) "Interior body spray" means a coating sprayed on the interior of the can body to provide a protective
12 film between the product and the can.
- 13 (5) "Overvarnish" means a coating applied directly over ink to reduce the coefficient of friction, to
14 provide gloss, and to protect the finish against abrasion and corrosion.
- 15 (6) "Three-piece can side-seam spray" means a coating sprayed on the exterior and interior of a welded,
16 cemented, or soldered seam to protect the exposed metal.
- 17 (7) "Two-piece can exterior end coating" means a coating applied by roller coating or spraying to the
18 exterior end of a can to provide protection to the metal.

19 (b) This Rule applies to volatile organic compound emissions from coating applicator(s) applicators and oven(s)
20 ovens of sheet, can, or end coating lines involved in sheet exterior and interior basecoat (~~exterior and interior~~) and
21 overvarnish; two-piece can interior body spray; two-piece spray or roll coat can exterior end (~~spray or roll coat~~); end;
22 three-piece can side-seam spray and end sealing compound operations.

23 (c) With the exception stated in Paragraph (d) of this Rule, emissions of volatile organic compounds from any can
24 coating line subject to this Rule shall not exceed:

- 25 (1) 4.5 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator
26 from sheet exterior and interior basecoat (~~exterior and interior~~) and overvarnish or two-piece can
27 exterior (~~basecoat and overvarnish~~) basecoat and overvarnish operations;
- 28 (2) 9.8 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator
29 from two and three-piece can interior body spray and two-piece spray or roll coat can exterior end
30 (~~spray or roll coat~~) operations;
- 31 (3) 21.8 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator
32 from a three-piece applicator from a three-piece can side-seam spray operations; or
- 33 (4) 7.4 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator
34 from end sealing compound operations.

35 (d) Any source which has chosen to control emissions under Rule .0518(e) of this Subchapter and which has installed
36 air pollution control equipment in accordance with an air quality permit in order to comply with this Rule before
37 December 1, 1989, may comply with the limits contained in this Paragraph instead of those contained in Paragraph

1 (c) of this Rule. Emissions of volatile organic compounds from any can coating line subject to this Rule shall not
2 exceed:

3 (1) 2.8 pounds of volatile organic compounds per gallon of coating, excluding water and exempt
4 compounds, delivered to the coating applicator from sheet exterior and interior basecoat (~~exterior~~
5 ~~and interior~~) and overvarnish or two-piece can exterior (~~basecoat and overvarnish~~) basecoat and
6 overvarnish operations;

7 (2) 4.2 pounds of volatile organic compounds per gallon of coating, excluding water and exempt
8 compounds, delivered to the coating applicator from two and three-piece can interior body spray
9 and two-piece can spray or roll coat exterior end (~~spray or roll coat~~) operations;

10 (3) 5.5 pounds of volatile organic compounds per gallon of coating, excluding water and exempt
11 compounds, delivered to the coating applicator from a three-piece applicator from a three-piece can
12 side-seam spray operations; or

13 (4) 3.7 pounds of volatile organic compounds per gallon of coating, excluding water and exempt
14 compounds, delivered to the coating applicator from end sealing compound operations.

15
16 *History Note:* *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

17 *Eff. July 1, 1979;*

18 *Amended Eff. July 1, 1996; July 1, 1991; December 1, 1989; January 1, ~~1985-1985~~;*

19 *Readopted Eff.*

20
21

1 15A NCAC 02D .0919 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0919 COIL COATING**

4 (a) For the purpose of this Rule, the following definitions shall apply:

5 (1) "Coil coating" means the coating of any flat metal sheet or strip that comes in rolls or coils.

6 (2) "Quench area" means a chamber where the hot metal exiting the oven is cooled by either a spray of
7 water or a blast of air followed by water cooling.

8 (b) This Rule applies to volatile organic compound emissions from the coating applicator(s), applicators, oven(s),
9 ovens and quench area(s) areas of coil coating lines involved in prime and top coat or single coat operations.

10 (c) With the exception stated in Paragraph (d) of this Rule, emissions of volatile organic compounds from any coil
11 coating line subject to this Rule shall not exceed 4.0 pounds of volatile organic compounds per gallon of solids
12 delivered to the coating applicator from prime and topcoat or single coat operations.

13 (d) Any source which has chosen to control emissions of volatile organic compounds under Rule .0518(e) of this
14 Subchapter and which has installed air pollution control equipment in accordance with an air quality permit in order
15 to comply with this Rule before December 1, 1989, may comply with the limits contained in this Paragraph instead of
16 those contained in Paragraph (c) of this Rule. Emissions of volatile organic compounds from any coil coating line
17 subject to this Rule shall not exceed 2.6 pounds of volatile organic compounds per gallon of coating, excluding water
18 and exempt compounds, delivered to the coating applicator from prime and topcoat or single coat operations.

19

20 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

21 *Eff. July 1, 1979;*

22 *Amended Eff. July 1, 1996; July 1, 1991; December 1, 1989; January 1, ~~1985-1985~~;*

23 *Readopted Eff. _____.*

24

25

1 15A NCAC 02D .0922 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0922 METAL FURNITURE COATINGS**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "Application area" means the area where the coating is applied by spraying, dipping, or flowcoating
6 techniques.
7 (2) "Coating unit" means one or more coating areas and any associated drying area or oven wherein a
8 coating is applied, dried, or cured.
9 (3) "Metal furniture coatings" means paints, sealants, caulks, inks, adhesives, and maskants.

10 (b) This Rule applies to each metal furniture surface coating unit source whose emissions of volatile organic
11 compounds exceeds the threshold established in ~~Paragraph (b) of Rule .0902 of this Section.~~ 15A NCAC 02D .0902(b).

12 (c) With the exception stated in Paragraph (f) of this Rule, emissions of all volatile organic compounds from metal
13 furniture coating unit subject to this Rule shall not exceed:

- 14 (1) 2.3 pounds of volatile organic compounds per gallon of coating excluding water and exempt
15 compounds ~~(3.3 or 3.3 pounds of volatile organic compounds per gallon of solids)~~ solids delivered
16 from general, one component or general, multi-component types of coating operations; and
17 (2) 3.0 pounds of volatile organic compounds per gallon of coating excluding water and exempt
18 compounds ~~(5.1 or 5.1 pounds of volatile organic compounds per gallon of solids)~~ solids delivered
19 from any other types of coating operations.

20 (d) EPA Method 24 ~~(40 CFR Part 60, Appendix A-7)~~ of Appendix A to 40 CFR Part 60 shall be used to determine
21 the volatile organic compounds content of coating materials used at metal furniture surface coating units unless the
22 facility maintains records to document the volatile organic compounds content of coating materials from the
23 manufacturer.

24 (e) Emissions limits established in Subparagraph (c)(2) of this Rule do not apply to stencil coatings, safety-indicating
25 coatings, solid film lubricants, electric-insulating and thermal-conducting coatings, touch up and repair coatings,
26 coating application utilizing hand- held aerosol cans, or cleaning operations.

27 (f) Any coating unit which has chosen to use add-on control for coating operations rather than the emission limits
28 established in Paragraph (c) of this Rule shall install control equipment with an overall control efficiency of 90 percent
29 or use a combination of coating and add-on control equipment on a coating unit to meet limits established in Paragraph
30 (c) of this Rule.

31 (g) The owner or operator of any facility subject to this rule shall comply with ~~the Rules .0903 and .0958 of this~~
32 Section. 15A NCAC 02D .0903 and .0958.

33
34 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

35 *Eff. July 1, 1979;*

36 *Amended Eff. September 1, 2010; July 1, 1996; July 1, 1991; December 1, 1989; January 1,*

37 *~~1985-1985.~~*

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Readopted Eff.

1 15A NCAC 02D .0923 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0923 SURFACE COATING OF LARGE APPLIANCE PARTS**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "Application area" means the area where the coating is applied by spraying, dipping, or flow coating
6 techniques.
- 7 (2) "Coating" means paints, sealants, caulks, inks, adhesives, and maskants.
- 8 (3) "Coating unit" means a unit that consists of a series of one or more coating applicators and any
9 associated drying area or oven where a coating is ~~dried~~dried or cured.
- 10 (4) "Large appliance part" means any organic surface-coated metal lid, door, casing, panel, or other
11 interior or exterior metal part or accessory that is assembled to form a large appliance product.
- 12 (5) "Large appliance product" means any organic surface-coated metal range, oven, microwave oven,
13 refrigerator, freezer, washer, dryer, dishwasher, water heater, or trash compactor manufactured for
14 household, commercial, or recreational use.

15 (b) This Rule applies to each large appliance coating unit source whose volatile organic compounds emissions exceed
16 the threshold established in ~~Paragraph (b) of Rule .0902 of this Section.~~15A NCAC 02D .0902.

17 (c) Emissions of all volatile organic compounds from any large appliance coating unit subject to this Rule shall not
18 exceed:

- 19 (1) 2.3 pounds of volatile organic compounds per gallon of coating, excluding water and exempt
20 compounds ~~(3.3 or 3.3 pounds of volatile organic compounds per gallon of solids)~~ solids delivered
21 from general, one component coating or general, multi-component types of coating operations; and
- 22 (2) 2.8 pounds of volatile organic compounds per gallon of coating, excluding water and exempt
23 compounds ~~(4.5 or 4.5 pounds of volatile organic compounds per gallon of solids)~~ solids delivered
24 from any other types of coating operations.

25 (d) EPA Method 24 ~~(40 CFR Part 60, Appendix A-7)~~ of Appendix A to 40 CFR Part 60 shall be used to determine
26 the volatile organic compounds content of coating materials used at surface coating of large appliances parts facilities
27 unless the facility maintains records to document the volatile organic compounds content of coating materials from
28 the manufacturer.

29 (e) Emissions limits established in Subparagraph (c)(2) of this Rule do not apply to stencil coatings, safety-indicating
30 coatings, solid film lubricants, electric-insulating and thermal-conducting coatings, touch up and repair coatings,
31 coating applications utilizing hand- held aerosol cans, or any cleaning material.

32 (f) Any coating unit which has chosen to use add-on controls for coating operations rather than the emission limits
33 established in Paragraph (c) of this Rule shall install control equipment with an overall control efficiency of 90 percent
34 or use a combination of coating and add-on control equipment on a coating unit to meet limits established in Paragraph
35 (c) of this Rule.

36 (g) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this~~
37 Section. 15A NCAC 02D .0903 and .0958.

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*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. July 1, 1979;
Amended Eff. September 1, 2010; July 1, 1996; July 1, 1991; December 1, 1989; January 1,
~~1985-1985~~;
Readopted Eff. _____.*

1 15A NCAC 02D .0924 is proposed for reoption without substantive changes as follows:

2

3 **15A NCAC 02D .0924 MAGNET WIRE COATING**

4 (a) For the purpose of this Rule, "magnet wire coating" means the process of applying a coating of electrically
5 insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

6 (b) This Rule applies to volatile organic compound emissions from the oven(s) of magnet wire coating operations.

7 (c) With the exception stated in Paragraph (d) of this Rule, emissions of volatile organic compounds from any magnet
8 wire coating oven subject to this Rule shall not exceed 2.2 pounds of volatile organic compounds per gallon of solids
9 delivered to the coating applicator from magnet wire coating operations.

10 (d) Any source which has chosen to control emissions of volatile organic compounds ~~under Rule .0518(e) of this~~
11 ~~Subchapter pursuant to 15A NCAC 02D .0518(e) prior to July 1, 2000~~ and which has installed air pollution control
12 equipment in accordance with an air quality permit in order to comply with this Rule before December 1, 1989, may
13 comply with the limits contained in this Paragraph instead of those contained in Paragraph (c) of this Rule. Emissions
14 of volatile organic compounds from any magnet wire coating oven subject to this Rule shall not exceed 1.7 pounds of
15 volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating
16 applicator from magnet wire coating operations.

17

18 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

19 *Eff. July 1, 1979;*

20 *Amended Eff. July 1, 1996; July 1, 1991; December 1, 1989; January 1, ~~1985-1985;~~*

21 *Readopted Eff. _____.*

22

1 15A NCAC 02D .0925 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0925 PETROLEUM LIQUID STORAGE IN FIXED ROOF TANKS**

4 (a) For the purpose of this ~~Regulation, Rule,~~ the following definitions apply:

- 5 (1) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes
6 in the temperature and/or pressure and remains liquid at standard conditions.
- 7 (2) "Crude oil" means a naturally occurring mixture which consists of hydrocarbons and/or sulfur,
8 nitrogen and/or oxygen derivatives of hydrocarbons and which is a liquid at standard conditions.
- 9 (3) "Custody transfer" means the transfer of produced crude oil and/or condensate, after processing
10 and/or treating in the producing operations, from storage tanks or automatic transfer facilities to
11 pipeline or any other forms of transportation.
- 12 (4) "External floating roof" means a storage vessel cover in an open top tank consisting of a double
13 deck or pontoon single deck which rests upon and is supported by the petroleum liquid being
14 contained and is equipped with a closure seal or seals to close the space between the roof edge and
15 tank shell.
- 16 (5) "Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floated
17 upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the
18 space between the roof edge and tank shell.
- 19 (6) "Petroleum liquids" means crude oil, condensate, and any finished or intermediate products
20 manufactured or extracted in a petroleum refinery.
- 21 (7) "Petroleum refinery" means any facility engaged in producing gasoline, kerosene, distillate fuel oils,
22 residual fuel oils, lubricants, or other products through distillation of crude oils, or through
23 redistillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

24 (b) This ~~Regulation, Rule~~ applies to all fixed roof storage vessels with capacities greater than 39,000 gallons containing
25 volatile petroleum liquids whose true vapor pressure is greater than 1.52 ~~psia-pounds per square inch.~~

26 (c) This ~~Regulation, Rule~~ does not apply to volatile petroleum liquid storage vessels:

- 27 (1) equipped with external floating ~~roofs, roofs;~~ or
28 (2) having capacities less than 416,000 gallons used to store produced crude oil and condensate prior to
29 lease custody transfer.

30 (d) With the exceptions stated in Paragraph (c) of this ~~Regulation, Rule,~~ the owner or operator of any fixed roof
31 storage vessel subject to this ~~Regulation, Rule~~ shall not use the storage vessel unless:

- 32 (1) The storage vessel has been retrofitted with an internal floating roof equipped with a closure seal,
33 or seals, to close the space between the roof edge and tank wall;
- 34 (2) The storage vessel is maintained such that there are no visible holes, tears, or other openings in the
35 seal or any seal fabric or materials;
- 36 (3) All openings, except stub drains are equipped with covers, lids, or seals such that:
37 (A) ~~The~~ the cover, lid, or seal is in the closed position at all times except when in actual use;

- 1 (B) ~~Automatic-automatic~~ bleeder vents are closed at all times except when the roof is floated
- 2 off or landed on the roof leg supports; and
- 3 (C) ~~Rim-rim~~ vents, if provided, are set to open when the roof is being floated off the roof leg
- 4 supports or at the manufacturer's recommended setting;
- 5 (4) Routine visual inspections are conducted through roof hatches once per month;
- 6 (5) A complete inspection of cover and seal is conducted whenever the tank is emptied for maintenance,
- 7 shell inspection, cleaning, or for other nonoperational reasons or whenever excessive vapor leakage
- 8 is observed; and
- 9 (6) Records are maintained in accordance with ~~Regulation .0903 of this Section~~ 15A NCAC 02D .0903
- 10 and shall include:
- 11 (A) reports of the results of inspections conducted ~~under Parts~~ pursuant to Subparagraph (d)(4)
- 12 and (d)(5) of this Regulation, Rule;
- 13 (B) a record of the average monthly storage temperature, and true vapor pressures of petroleum
- 14 liquids ~~stored,~~ stored; and
- 15 (C) records of the throughput quantities and types of petroleum liquids for each storage vessel.

16
17 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
18 Eff. July 1, 1979;
19 Amended Eff. March 1, 1991; December 1, 1989; January 1, ~~1985-1985;~~
20 Readopted Eff. _____.

1 15A NCAC 02D .0926 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 02D .0926 BULK GASOLINE PLANTS**

4 (a) For the purpose of this Rule, the following definitions apply:

- 5 (1) "Average daily throughput" means annual throughput of gasoline divided by 312 days per year.
- 6 (2) "Bottom filling" means the filling of a cargo tank-truck or stationary storage tank through an opening
7 ~~that is~~ flush with the tank bottom.
- 8 (3) "Bulk gasoline plant" means a gasoline storage and distribution facility ~~which has~~ with an average
9 daily throughput of less than 20,000 gallons of gasoline and which usually receives gasoline from
10 bulk terminals by ~~trailer~~ cargo tank transport, stores it in tanks, and subsequently dispenses it via
11 account ~~trucks~~ cargo tanks to local farms, businesses, and service stations.
- 12 (4) "Bulk gasoline terminal" means a gasoline storage facility which usually receives gasoline from
13 refineries primarily by pipeline, ship, or barge; and delivers gasoline to bulk gasoline plants or to
14 commercial or retail accounts primarily by ~~tank-truck;~~ cargo tank; and has an average daily
15 throughput of more than 20,000 gallons of gasoline.
- 16 (5) "Gasoline" means any petroleum distillate having a ~~Reid vapor pressure of four psia~~ Reid Vapor
17 Pressure (RVP) of 4.0 psi or greater.
- 18 (6) "Incoming vapor balance system" means a combination of pipes or hoses which create a closed
19 system between the vapor spaces of an unloading cargo tank-truck ~~or trailer~~ and a receiving
20 stationary storage tank such that vapors displaced from the receiving stationary storage tank are
21 transferred to the cargo tank-truck ~~or trailer~~ being unloaded.
- 22 (7) "Outgoing vapor balance system" means a combination of pipes or hoses which create a closed
23 system between the vapor spaces of an unloading stationary storage tank and a receiving cargo tank
24 ~~truck or trailer~~ such that vapors displaced from the receiving cargo tank-truck ~~or trailer~~ are
25 transferred to the stationary storage tank being unloaded.
- 26 (8) "Splash filling" means the filling of a cargo tank-truck or stationary storage tank through a pipe or
27 hose whose discharge opening is above the surface level of the liquid in the tank being filled.
- 28 (9) "Submerged filling" means the filling of a cargo tank-truck or stationary tank through a pipe or hose
29 whose discharge opening is entirely submerged when the pipe normally used to withdraw liquid
30 from the tank can no longer withdraw any liquid, or whose discharge opening is entirely submerged
31 when the liquid level is six inches above the bottom of the tank.

32 (b) This Rule applies to the unloading, loading, and storage facilities of all bulk gasoline plants and of all ~~tank-trucks~~
33 ~~or trailers~~ cargo tanks delivering or receiving gasoline at bulk gasoline plants except stationary storage tanks with
34 capacities less than 528 gallons.

35 (c) The owner or operator of a bulk gasoline plant shall not transfer gasoline to any stationary storage tanks ~~after May~~
36 ~~1, 1993,~~ unless the unloading cargo tank-truck ~~or trailer~~ and the receiving stationary storage tank are equipped with

1 an incoming vapor balance system as described in Paragraph (i) of this Rule and the receiving stationary storage tank
2 is equipped with a fill line whose discharge opening is flush with the bottom of the tank.

3 (d) The owner or operator of a bulk gasoline plant with an average daily gasoline throughput of 4,000 gallons or more
4 shall not load ~~cargo tank trucks or trailers~~ at such plant ~~after May 1, 1993~~, unless the unloading stationary storage tank
5 and the receiving ~~cargo tank truck or trailer~~ are equipped with an outgoing vapor balance system as described in
6 Paragraph (i) of this Rule and the receiving ~~cargo tank truck or trailer~~ is equipped for bottom filling.

7 (e) The owner or operator of a bulk gasoline plant with an average daily throughput of more than 2,500 gallons but
8 less than 4,000 gallons located in an area with a housing density exceeding specified limits as described in this
9 Paragraph shall not load any ~~cargo tank truck or trailer~~ at such bulk gasoline plant ~~after November 1, 1996~~, unless the
10 unloading stationary storage tank and receiving ~~cargo tank truck or trailer~~ are equipped with an outgoing vapor balance
11 system as described in Paragraph (i) of this Rule and the receiving ~~cargo tank truck or trailer~~ is equipped for bottom
12 filling. In the counties of Alamance, Buncombe, Cabarrus, Catawba, Cumberland, Davidson, Durham, Forsyth,
13 Gaston, Guilford, Mecklenburg, New Hanover, Orange, Rowan, and Wake, the specified limit on housing density is
14 50 residences in a square one mile on a side with the square centered on the loading rack at the bulk gasoline plant
15 and with one side oriented in a true North-South direction. In all other counties the specified limit on housing density
16 is 100 residences per square mile. The housing density shall be determined by counting the number of residences
17 using aerial photographs or other methods ~~determined~~ approved by the Director to provide equivalent accuracy.

18 (f) The owner or operator of a bulk gasoline plant not subject to the outgoing vapor balance system requirements of
19 Paragraph (d) or (e) of this Rule shall not load ~~trucks or trailers~~ cargo tanks at such plants unless:

20 (1) ~~Equipment~~ equipment is available at the bulk gasoline plant to provide for ~~submerge~~ submerged
21 filling of each ~~tank truck or trailer~~; cargo tank; or

22 (2) ~~Each~~ each receiving ~~cargo tank truck or trailer~~ is equipped for bottom filling.

23 (g) For a gasoline bulk plants located in a nonattainment area for ozone, ~~once the average daily throughput of gasoline~~
24 ~~at the bulk gasoline plant reaches or exceeds the applicability threshold in Paragraph (d) or (e) of this Rule or if~~
25 ~~Paragraph (d) or (e) is currently applicable to the bulk gasoline plant, the bulk gasoline plant shall continue to comply~~
26 ~~with the outgoing vapor balance system requirements of Paragraph (d) or (e) of this Rule, as is applicable, even though~~
27 ~~the average daily gasoline throughput falls below the threshold contained in Paragraph (d) or (e) of this Rule. the~~
28 owner or operator shall continue to comply with Paragraph (d) or (e) of this Rule even if the average daily throughput
29 falls below the applicable threshold if ever the facility throughput triggered compliance.

30 (h) The owner or operator of a bulk gasoline plant, ~~cargo tank truck or trailer~~ that is required to be equipped with a
31 vapor balance system pursuant to Paragraphs (c), (d), or (e) of this Rule shall not transfer gasoline between cargo tank
32 ~~truck or trailer~~ and stationary storage tank unless:

33 (1) ~~The~~ the vapor balance system is in good working order and is connected and operating;

34 (2) ~~Tank~~ cargo tank truck or trailer hatches are closed at all times during loading and unloading
35 operations; and

1 (3) ~~The the tank truck's or trailer's cargo tank's~~ pressure/vacuum relief valves and hatch covers and the
2 ~~truck tanks or storage tanks or valves, hatch covers, and the cargo tank's and storage tank's~~
3 associated vapor and liquid lines are vapor tight during loading or unloading.

4 (i) Vapor balance systems required under Paragraphs (c), (d), and (e) of this Rule shall consist of the following major
5 components:

6 (1) a vapor space connection on the stationary storage tank equipped with fittings which are vapor tight
7 and will be automatically and immediately closed upon disconnection ~~so as to~~ prevent release of
8 volatile organic material;

9 (2) a connecting pipe or hose equipped with fittings which are vapor tight and will be automatically and
10 immediately closed upon disconnection ~~so as to~~ prevent release of volatile organic material; and

11 (3) a vapor space connection on the cargo tank truck or trailer equipped with fittings which are vapor
12 tight and will be automatically and immediately closed upon disconnection ~~so as to~~ prevent release
13 of volatile organic material.

14 (j) The owner or operator of a bulk gasoline plant shall paint all tanks used for gasoline storage white or ~~silver at the~~
15 ~~next scheduled painting or before November 1, 2002, whichever is sooner.~~ silver.

16 (k) The pressure relief valves on ~~tank trucks or trailers~~ cargo tanks loading or unloading at bulk gasoline plants shall
17 be set to release at the highest possible pressure (~~in in~~ accordance with state or local fire codes or the National Fire
18 Prevention Association ~~guidelines~~). Guidelines. The pressure relief valves on stationary storage tanks shall be set at
19 0.5 psi for storage tanks placed in service on or after November 1, 1992, and 0.25 psi for storage tanks existing before
20 November 1, 1992.

21 (l) No owner or operator of a bulk gasoline plant may permit gasoline to be spilled, discarded in sewers, stored in
22 open containers, or handled in any other manner that would result in evaporation.

23 (m) The owner or operator of a bulk gasoline plant shall observe loading and unloading operations and shall
24 discontinue the transfer of gasoline:

25 (1) if any liquid leaks are observed, or

26 (2) if any vapor leaks are observed where a vapor balance system is required under Paragraphs (c), (d),
27 or (e) of this Rule.

28 (n) The owner or operator of a bulk gasoline plant shall not load, or allow to be loaded, gasoline into any cargo tank
29 ~~truck tank or trailer~~ unless the cargo tank truck tank or trailer has been certified leak tight in accordance with Rule
30 ~~.0932 of this Section within the last 12 months where the bulk gasoline plant is required to use an outgoing vapor~~
31 ~~balance system.~~ 15A NCAC 02D .0932, .0960, and .2615.

32
33 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

34 *Eff. July 1, 1979;*

35 *Amended Eff. July 1, 1996; May 1, 1993; March 1, 1991; December 1, 1989; January 1, ~~1985-1985;~~*

36 *Readopted Eff. _____.*

1 15A NCAC 02D .0927 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 02D .0927 BULK GASOLINE TERMINALS**

4 (a) For the purpose of this Rule, the following definitions apply:

5 (1) "Bulk gasoline terminal" means:

6 (A) ~~breakout tanks~~ a pipeline breakout station of an interstate oil pipeline facility; or

7 (B) a gasoline storage facility that usually receives gasoline from refineries primarily by
8 pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail
9 accounts primarily by ~~tank truck~~; cargo tank; and has an average daily throughput of more
10 than 20,000 gallons of gasoline.

11 ~~(2) "Breakout tank" means a tank used to:~~

12 ~~(A) relieve surges in a hazardous liquid pipeline system, or~~

13 ~~(B) receive and store hazardous liquids transported by pipeline for reinjection and continued~~
14 ~~transport by pipeline.~~

15 ~~(2) "Contact deck" means a deck in an internal floating roof tank that rises and falls with the liquid level~~
16 ~~and floats in direct contact with the liquid surface.~~

17 ~~(3) "Gasoline" means a petroleum distillate having a Reid vapor pressure of four psia or greater.~~

18 ~~(4) "Contact deck" means a deck in an internal floating roof tank that rises and falls with the liquid level~~
19 ~~and floats in direct contact with the liquid surface.~~

20 ~~(3)(5) "Degassing" means the process by which a tank's interior vapor space is decreased to below the~~
21 ~~lower explosive limit for the purpose of cleaning, inspection, or repair.~~

22 ~~(4) "Gasoline" means a petroleum distillate having a Reid vapor pressure of four psia or greater.~~

23 ~~(5)(6) "Leak" means a crack or hole that lets letting petroleum product vapor or liquid escape that can be~~
24 ~~identified through the use of identifiable through sight, sound, smell, an explosimeter, or the use of~~
25 ~~a meter that measures volatile organic compounds. When an explosimeter or meter is used to detect~~
26 ~~a leak, a leak is a measurement that is equal to or greater than 100 percent of the lower explosive~~
27 ~~limit, as detected by a combustible gas detector using the test procedure described in Rule .0940 of~~
28 ~~this Section. 15A NCAC 02D .0940.~~

29 ~~(6)(7) "Liquid balancing" means a process used to degas floating roof gasoline storage tanks with a liquid~~
30 ~~whose vapor pressure is below 1.52 psia. psi. This is done by removing as much gasoline as possible~~
31 ~~without landing the roof on its internal supports, pumping in the replacement fluid, allowing mixing,~~
32 ~~remove as much mixture as possible without landing the roof, and repeating these steps until the~~
33 ~~vapor pressure of the mixture is below 1.52 psia. psi.~~

34 ~~(7)(8) "Liquid displacement" means a process by which gasoline vapors, remaining in an empty tank, are~~
35 ~~displaced by a liquid with a vapor pressure below 1.52 psia. psi.~~

36 ~~(8) "Pipeline breakout station" means a facility along a pipeline containing storage tanks used to:~~

37 ~~(A) relieve surges in a hazardous liquid pipeline system; or~~

1 (B) receive and store hazardous liquids transported by pipeline for reinjection and continued
2 transport by pipeline.

3 (b) This Rule applies to bulk gasoline terminals and the appurtenant equipment necessary to load the cargo tank-truck
4 ~~or trailer~~ compartments.

5 (c) Gasoline shall not be loaded into any cargo tank-trucks or trailers from any bulk gasoline terminal unless:

6 (1) ~~The~~ the bulk gasoline terminal is equipped with a vapor control system that prevents the emissions
7 of volatile organic compounds from exceeding 35 milligrams per liter. The owner or operator shall
8 obtain from the manufacturer and maintain in his records a pre-installation certification stating the
9 vapor control efficiency of the system in use;

10 (2) ~~Displaced~~ displaced vapors and gases are vented only to the vapor control system or to a flare;

11 (3) ~~A~~ a means is provided to prevent liquid drainage from the loading device when it is not in use or to
12 accomplish complete drainage before the loading device is disconnected; and

13 (4) ~~All~~ all loading and vapor lines are equipped with fittings that make vapor-tight connections and that
14 are automatically and immediately closed upon disconnection.

15 (d) Sources regulated by Paragraph (b) of this Rule shall not:

16 (1) allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that
17 would result in ~~evaporation,~~ evaporation; or

18 (2) allow the pressure in the vapor collection system to exceed the cargo tank-truck or trailer pressure
19 relief settings.

20 (e) The owner or operator of a bulk gasoline terminal shall paint all tanks used for gasoline storage white or ~~silver at~~
21 ~~the next scheduled painting or by December 1, 2002, whichever occurs first.~~ silver.

22 (f) The owner or operator of a bulk gasoline terminal shall install on each external floating roof tank with an inside
23 diameter of 100 feet or less used to store gasoline a self-supporting roof, such as a geodesic ~~dome, at the next time~~
24 ~~that the tank is taken out of service or by December 1, 2002, whichever occurs first.~~ dome.

25 (g) The following equipment shall be required on all tanks storing gasoline at a bulk gasoline terminal:

26 (1) rim-mounted secondary seals on all external and internal floating roof tanks,

27 (2) gaskets on deck fittings, and

28 (3) floats in the slotted guide poles with a gasket around the cover of the poles.

29 (h) Decks shall be required on all above ground tanks with a capacity greater than 19,800 gallons storing gasoline at
30 a bulk gasoline terminal. All decks installed after June 30, 1998 shall comply with the following requirements:

31 (1) deck seams shall be welded, bolted or riveted; and

32 (2) seams on bolted contact decks and on riveted contact decks shall be gasketed.

33 (i) If, upon facility or operational modification of a bulk gasoline terminal that existed before December 1, 1992, an
34 increase in benzene emissions results such that:

35 (1) emissions of volatile organic compounds increase by more than 25 tons cumulative at any time
36 during the five years following modifications; and

1 (2) annual emissions of benzene from the cluster where the bulk gasoline terminal is located (including
2 the pipeline and marketing terminals served by the pipeline) exceed benzene emissions from that
3 cluster based upon calendar year 1991 gasoline throughput and application of the requirements of
4 this Subchapter,

5 then, the annual increase in benzene emissions due to the modification shall be offset within the cluster by reduction
6 in benzene emissions beyond that otherwise achieved from compliance with this Rule, in the ratio of at least 1.3 to 1.

7 (j) The owner or operators of a bulk gasoline terminal that has received an air permit before December 1, 1992, to
8 emit toxic air pollutants under 15A NCAC 02Q .0700 to comply with Section .1100 of this Subchapter shall continue
9 to follow all terms and conditions of the permit issued under 15A NCAC 02Q .0700 and to bring the terminal into
10 compliance with Section .1100 of this Subchapter according to the terms and conditions of the permit, in which case
11 the bulk gasoline terminal shall continue to need a permit to emit toxic air pollutants and shall be exempted from
12 Paragraphs (e) through (i) of this Rule.

13 (k) The owner or operator of a bulk gasoline terminal shall not load, or allow to be loaded, gasoline into any ~~truck~~
14 ~~tank or trailer~~ cargo tank unless the ~~truck tank or trailer~~ cargo tank has been certified leak tight according to ~~Rule~~
15 ~~.0932 of this Section within the last 12 months.~~ 15A NCAC 02D .0932, .0960, and .2615.

16 (l) The owner or operator of a bulk gasoline terminal shall have on file at the terminal a copy of the certification test
17 conducted according to Rule .0932 of this Section for each gasoline cargo tank ~~truck~~ loaded at the terminal.

18 (m) Emissions of gasoline from degassing of external or internal floating roof tanks at a bulk gasoline terminal shall
19 be collected and controlled by at least 90 percent by weight. Liquid balancing shall not be used to degas gasoline
20 storage tanks at bulk gasoline terminals. Bulk gasoline storage tanks containing not more than 138 gallons of liquid
21 gasoline or the equivalent of gasoline vapor and gasoline liquid are exempted from the degassing requirements if
22 gasoline vapors are vented for at least 24-hours. Documentation of degassing external or internal floating roof tanks
23 shall be made according to 15A NCAC 02D .0903.

24 (n) According to Rule .0903 of this Section, the owner or operator of a bulk gasoline terminal shall visually inspect
25 the following for leaks each day that the terminal is both manned and open for business:

- 26 (1) the vapor collection ~~system,~~ system;
- 27 (2) the vapor control ~~system,~~ system; and
- 28 (3) each lane of the loading rack while a gasoline cargo tank ~~truck or trailer~~ is being loaded.

29 If no leaks are found, the owner or operator shall record that no leaks were found. If a leak is found, the owner or
30 operator shall record the information specified in Paragraph (p) of this Rule. The owner or operator shall repair all
31 leaks found according to Paragraph (q) of this Rule.

32 (o) The owner or operator of a bulk gasoline terminal shall inspect weekly for leaks:

- 33 (1) the vapor collection ~~system,~~ system;
- 34 (2) the vapor control ~~system,~~ system; and
- 35 (3) each lane of the loading rack while a gasoline cargo tank ~~truck or trailer~~ is being loaded.

36 The weekly inspection shall be done using sight, sound, or smell; a meter used to measure volatile organic compounds;
37 or an explosimeter. An inspection using either a meter used to measure volatile organic compounds or an explosimeter

1 shall be conducted every month. If no leaks are found, the owner or operator shall record the date that the inspection
2 was done and that no leaks were found. If a leak is found, the owner or operator shall record the information specified
3 in Paragraph (p) of this Rule. The owner or operator shall repair all leaks found according to Paragraph (q) of this
4 Rule.

5 (p) For each leak found under Paragraph (n) or (o) of this Rule, the owner or operator of a bulk gasoline terminal
6 shall record:

- 7 (1) the date of the ~~inspection,~~inspection;
- 8 (2) the findings (~~location, nature and severity of each leak~~), detailing the location, nature, and severity
9 of each leak;
- 10 (3) the corrective action ~~taken,~~taken;
- 11 (4) the date when corrective action was ~~completed,~~completed; and
- 12 (5) any other information that the terminal deems necessary to demonstrate compliance.

13 (q) The owner or operator of a bulk gasoline terminal shall repair all leaks as follows:

- 14 (1) The vapor collection hose that connects to the cargo tank ~~truck or trailer~~ shall be repaired or replaced
15 before another cargo tank ~~truck or trailer~~ is loaded at that rack after a leak has been detected
16 originating with the terminal's equipment rather than from the ~~gasoline tank truck or trailer,~~ cargo
17 tank.
- 18 (2) All other leaks shall be repaired as expeditiously as possible but no later than 15 days from their
19 detection. If more than 15 days are required to make the repair, the reasons that the repair cannot be
20 made shall be documented, and the leaking equipment shall not be used after the fifteenth day from
21 when the leak detection was found until the repair is made.

22
23 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
24 *Eff. July 1, 1979;*
25 *Amended Eff. January 1, 2007; April 1, 2003; August 1, 2002; July 1, 1998; July 1, 1996; July 1,*
26 *1994; December 1, 1992; December 1, 1989; January 1, ~~1985.~~ 1985;*
27 *Readopted Eff.*
28
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1 15A NCAC 02D .0928 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0928 GASOLINE SERVICE STATIONS STAGE I**

4 (a) Definitions. For the purpose of this Rule, the following definitions apply:

5 (1) "Coaxial vapor recovery system" means the delivery of the product and recovery of vapors occurring
6 through a single coaxial fill tube, which is a tube within a tube. Product is delivered through the
7 inner tube, and vapor is recovered through the annular space between the walls of the inner tube and
8 outer tube.

9 ~~(1) "Gasoline" means a petroleum distillate having a Reid vapor pressure of four psia or greater.~~

10 ~~(2) "Delivery vessel" means tank trucks or trailers cargo tanks equipped with a storage tank and used~~
11 ~~for the transport of gasoline from sources or supply to stationary storage tanks of gasoline dispensing~~
12 ~~facilities.~~

13 (3) "Dual point vapor recovery system" means the delivery of the product to the stationary storage tank
14 and the recovery of vapors from the stationary storage tank occurring through two separate openings
15 in the storage tank and two separate hoses between the cargo tank and the stationary storage tank.

16 ~~(3) "Submerged fill pipe" means any fill pipe with a discharge opening which is entirely submerged~~
17 ~~when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid,~~
18 ~~or which is entirely submerged when the level of the liquid is:~~

19 ~~(A) six inches above the bottom of the tank if the tank does not have a vapor recovery adaptor,~~
20 ~~or~~

21 ~~(B) 12 inches above the bottom of the tank if the tank has a vapor recovery adaptor. If the~~
22 ~~opening of the submerged fill pipe is cut at a slant, the distance is measured from the top~~
23 ~~of the slanted cut to the bottom of the tank.~~

24 ~~(4) "Owner" means any person who has legal or equitable title to the gasoline storage tank at a facility.~~

25 ~~(5) "Operator" means any person who leases, operates, controls, or supervises a facility at which~~
26 ~~gasoline is dispensed.~~

27 (4) "Gasoline" means a petroleum distillate having a Reid vapor pressure of four psia or greater.

28 ~~(6)(5) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline~~
29 ~~tanks from stationary storage tanks.~~

30 ~~(7)(6) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the~~
31 ~~motoring public from stationary storage tanks.~~

32 ~~(8) "Throughput" means the amount of gasoline dispensed at a facility during a calendar month after~~
33 ~~November 15, 1990.~~

34 ~~(9)(7) "Line" means any pipe suitable for transferring gasoline.~~

35 ~~(10) "Dual point system" means the delivery of the product to the stationary storage tank and the recovery~~
36 ~~of vapors from the stationary storage tank occurs through two separate openings in the storage tank~~
37 ~~and two separate hoses between the tank truck and the stationary storage tank.~~

1 ~~(11)~~ "Coaxial system" means the delivery of the product and recovery of vapors occur through a single
2 coaxial fill tube, which is a tube within a tube. Product is delivered through the inner tube, and
3 vapor is recovered through the annular space between the walls of the inner tube and outer tube.

4 ~~(8)~~ "Operator" means any person who leases, operates, controls, or supervises a facility at which
5 gasoline is dispensed.

6 ~~(9)~~ "Owner" means any person who has legal or equitable title to the gasoline storage tank at a facility.

7 ~~(12)~~~~(10)~~ "Poppeted vapor recovery adaptor" means a vapor recovery adaptor that automatically and
8 immediately closes itself when the vapor return line is disconnected and maintains a tight seal when
9 the vapor return line is not connected.

10 ~~(13)~~~~(11)~~ "Stationary storage tank" means a gasoline storage container which is a permanent fixture.

11 ~~(12)~~ "Submerged fill pipe" means any fill pipe with a discharge opening which is entirely submerged
12 when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid,
13 or which is entirely submerged when the level of the liquid is:

14 ~~(A)~~ six inches above the bottom of the tank if the tank does not have a vapor recovery adaptor,
15 or

16 ~~(B)~~ 12 inches above the bottom of the tank if the tank has a vapor recovery adaptor. If the
17 opening of the submerged fill pipe is cut at a slant, the distance is measured from the top
18 of the slanted cut to the bottom of the tank.

19 ~~(13)~~ "Throughput" means the amount of gasoline dispensed at a facility during a calendar month after
20 November 15, 1990.

21 (b) Applicability. This Rule applies to all gasoline dispensing facilities and gasoline service stations, and to delivery
22 vessels delivering gasoline to a gasoline dispensing facility or gasoline service station.

23 (c) Exemptions. This Rule does not apply to:

24 (1) transfers made to storage tanks at gasoline dispensing facilities or gasoline service stations equipped
25 with floating roofs or their equivalent;

26 (2) stationary tanks with a capacity of not more than 2,000 gallons which are in place before July 1,
27 1979, if the tanks are equipped with a permanent or portable submerged fill pipe;

28 (3) stationary storage tanks with a capacity of not more than 550 gallons which are installed after June
29 30, 1979, if tanks are equipped with a permanent or portable submerged fill pipe;

30 (4) stationary storage tanks with a capacity of not more than ~~2000~~ 2,000 gallons located on a farm or a
31 residence and used to store gasoline for farm equipment or residential use if gasoline is delivered to
32 the tank through a permanent or portable submerged fill pipe except that this exemption does not
33 apply in ozone non-attainment areas;

34 (5) stationary storage tanks at a gasoline dispensing facility or gasoline service station where the
35 combined annual throughput of gasoline at the facility or station does not exceed 50,000 gallons, if
36 the tanks are permanently equipped with submerged fill pipes;

37 (6) any tanks used exclusively to test the fuel dispensing meters.

1 (d) With exceptions stated in Paragraph (c) of this Rule, gasoline shall not be transferred from any delivery vessel
2 into any stationary storage tank unless:

- 3 (1) ~~The the~~ tank is equipped with a submerged fill pipe, and the vapors displaced from the storage tank
4 during filling are controlled by a vapor control system as described in Paragraph (e) of this Rule;
- 5 (2) ~~The the~~ vapor control system is in good working order and is connected and operating with a vapor
6 tight connection;
- 7 (3) ~~The the~~ vapor control system is properly maintained and all damaged or malfunctioning components
8 or elements of design are repaired, ~~replaced-replaced~~, or modified;
- 9 (4) ~~Gauges, gauges,~~ meters, or other specified testing devices are maintained in proper working order;
- 10 (5) ~~The the~~ delivery vessel and vapor collection system complies with ~~Rule .0932 of this Section; 15A~~
11 NCAC 02D .0932; and
- 12 (6) ~~The the~~ following records, ~~as a minimum, records~~ are kept in accordance with ~~Rule .0903 of this~~
13 Section: 15A NCAC 02D .0903:
 - 14 (A) the scheduled date for maintenance or the date that a malfunction was detected;
 - 15 (B) the date the maintenance was performed or the malfunction corrected; and
 - 16 (C) the component or element of design of the control system repaired, replaced, or modified.

17 (e) The vapor control system required by Paragraph (d) of this Rule shall include one or more of the following:

- 18 (1) a vapor-tight line from the storage tank to the delivery vessel and:
 - 19 (A) for a coaxial vapor recovery system, either a poppeted or unpoppeted vapor recovery
20 adaptor;
 - 21 (B) for a dual point vapor recovery system, a poppeted vapor recovery adaptor; or
- 22 (2) a refrigeration-condensation system or equivalent designed to recover at least 90 percent by weight
23 of the volatile organic compounds in the displaced vapor.

24 (f) If an unpoppeted vapor recovery adaptor is used pursuant to Part (e)(1)(A) of this Rule, the tank liquid fill
25 connection shall remain covered either with a vapor-tight cap or a vapor return line except when the vapor return line
26 is being connected or disconnected.

27 (g) If an unpoppeted vapor recovery adaptor is used pursuant to Part (e)(1)(A) of this Rule, the unpoppeted vapor
28 recovery adaptor shall be replaced with a poppeted vapor recovery adaptor when the tank is replaced or is removed
29 and upgraded.

30 (h) Where vapor lines from the storage tanks are manifolded, poppeted vapor recovery adaptors shall be used. No
31 more than one tank is to be loaded at a time if the manifold vapor lines are size ~~2-1/2~~2.5 inches and smaller. If the
32 manifold vapor lines are 3.0 inches and larger, then two tanks at a time may be loaded.

33 (i) Vent lines on tanks with Stage I controls shall have pressure release valves or restrictors.

34 (j) The vapor-laden delivery vessel:

- 35 (1) shall be designed and maintained to be vapor-tight during loading and unloading operations and
36 during transport with the exception of normal pressure/vacuum venting as required by regulations
37 of the Department of Transportation; and

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(2) if it is refilled in North Carolina, shall be refilled only at:

- (A) bulk gasoline plants complying with ~~Rule .0926 of this Section,~~ 15A NCAC 02D .0926; or
- (B) bulk gasoline terminals complying with ~~Rule .0927 of this Section or Rule .0524 of this Subchapter.~~ 15A NCAC 02D .0927 or .0524.

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. July 1, 1979;
Amended Eff. July 1, 1996; July 1, 1994; March 1, 1991; December 1, 1989; January 1, ~~1985-1985~~;
Readopted Eff.*

1 15A NCAC 02D .0930 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .0930 SOLVENT METAL CLEANING**

4 (a) For the purpose of this ~~Regulation~~, Rule, the following definitions apply:

- 5 (1) "Cold cleaning" means the batch process of cleaning and removing soils from metal surfaces by
6 spraying, brushing, flushing, or immersion while maintaining the solvent below its boiling point.
7 Wipe cleaning is not included in this definition.
- 8 (2) "Conveyorized degreasing" means the continuous process of cleaning and removing soils from
9 metal surfaces by operating with either cold or vaporized solvents.
- 10 (3) "Freeboard height" means for vapor degreasers the distance from the top of the vapor zone to the
11 top of the degreaser tank. For cold cleaners, freeboard height means the distance from liquid solvent
12 level in the degreaser tank to the top of the tank.
- 13 (4) "Freeboard ratio" means the freeboard height divided by the width of the degreaser.
- 14 (5) "Open top vapor degreasing" means the batch process of cleaning and removing soils from metal
15 surfaces by condensing hot solvent vapor on the colder metal parts.
- 16 (6) "Solvent metal cleaning" means the process of cleaning soils from metal surfaces by cold cleaning
17 or open top vapor degreasing or conveyorized degreasing.

18 (b) This ~~Regulation~~-Rule applies to cold cleaning, open top vapor degreasing, and conveyorized degreasing
19 operations.

20 (c) The provisions of this ~~Regulation~~-Rule shall apply with the following exceptions:

- 21 (1) Open top vapor degreasers with an open area smaller than 10.8 square feet shall be exempt from
22 Subparagraph (e)(3) of this ~~Regulation~~; Rule; and
- 23 (2) Conveyorized degreasers with an air/vapor interface smaller than 21.6 square feet shall be exempt
24 from Subparagraph (f)(2) of this ~~Regulation~~-Rule.

25 (d) The owner or operator of a cold cleaning facility shall:

- 26 (1) equip the cleaner with a cover and the cover shall be designed so that it can be easily operated with
27 one hand, if:
- 28 (A) ~~The~~ the solvent volatility is greater than 15 millimeters of mercury or 0.3 pounds per square
29 inch measured at 100°F;
- 30 (B) ~~The~~ the solvent is agitated; or
- 31 (C) ~~The~~ the solvent is heated;
- 32 (2) equip the cleaner with a facility for draining cleaned parts. The drainage facility shall be constructed
33 internally so that parts are enclosed under the cover while draining if the solvent volatility is greater
34 than 32 millimeters of mercury or 0.6 pounds per square inch measured at 100°F. However, the
35 drainage facility may be external for applications where an internal type cannot fit into the cleaning
36 system;

- 1 (3) install one of the following control devices if the solvent volatility is greater than 33 millimeters of
2 mercury or 0.6 pounds per square inch measured at 100°F, or if the solvent is heated above 120°F;
3 (A) freeboard which gives a freeboard ratio greater than or equal to 0.7;
4 (B) water cover if the solvent is insoluble in and heavier than water; or
5 (C) other systems of equivalent control, such as refrigerated chiller or carbon adsorption,
6 approved by the Director;
- 7 (4) provide a permanent, conspicuous label, summarizing the operating requirements;
- 8 (5) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to
9 another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into
10 the atmosphere;
- 11 (6) close the cover whenever parts are not being handled in the cleaner;
- 12 (7) drain the cleaned parts for at least 15 seconds or until dripping ceases; and
- 13 (8) if used, supply a solvent spray which is a solid fluid stream (not a fine, atomized, or shower type
14 spray) at a pressure which does not cause excessive splashing.
- 15 (e) With the exception stated in Paragraph (c) of ~~the Regulation~~, this Rule the owner or operator of an open top vapor
16 degreaser shall:
- 17 (1) equip the vapor degreaser with a cover which can be opened and closed easily without disturbing
18 the vapor zone;
- 19 (2) provide the following safety switches or devices:
- 20 (A) a condenser flow switch and thermostat or other device which prevents heat input if the
21 condenser coolant is either not circulating or too warm,
- 22 (B) a spray safety switch or other device which shuts off the spray pump if the vapor level
23 drops more than 10 inches, and
- 24 (C) a vapor level control thermostat or other device which prevents heat input when the vapor
25 level rises too high;
- 26 (3) install one of the following control devices:
- 27 (A) freeboard ratio greater than or equal to 0.75. If the degreaser opening is greater than 10.8
28 square feet, the cover must be powered;
- 29 (B) refrigerated chiller;
- 30 (C) enclosed design (~~The where~~ cover or door opens only when the dry part is actually entering
31 or exiting the ~~degreaser~~); degreaser or
- 32 (D) carbon adsorption system, with ventilation greater than or equal to 50 cubic feet per minute
33 per square foot of air/vapor area (~~when when~~ cover is ~~open~~), open, and exhausting less than
34 25 parts per million of solvent averaged over one complete adsorption cycle;
- 35 (4) keep the cover closed at all times except when processing workloads through the degreaser; and
- 36 (5) minimize solvent carryout by:
- 37 (A) racking parts to allow complete ~~drainage~~, drainage;

- 1 (B) moving parts in and out of the degreaser at less than 11 feet per ~~minute,~~ minute;
- 2 (C) holding the parts in the vapor zone at least 30 seconds or until condensation ~~ceases,~~ ceases;
- 3 (D) tipping out any pools of solvent on the cleaned parts before removal from the vapor ~~zone,~~
- 4 zone; and
- 5 (E) allowing parts to dry within the degreaser for at least 15 seconds or until visually dry;
- 6 (6) not degrease porous or absorbent materials, such as cloth, leather, wood, or rope;
- 7 (7) not occupy more than half of the degreaser's open top area with a workload;
- 8 (8) not load the degreaser to the point where the vapor level would drop more than 10 inches when the
- 9 workload is removed from the vapor zone;
- 10 (9) always spray below the vapor level;
- 11 (10) repair solvent leaks immediately or shutdown the degreaser;
- 12 (11) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to
- 13 another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into
- 14 the atmosphere;
- 15 (12) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water
- 16 separator;
- 17 (13) not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 65
- 18 cubic feet per minute per square foot of degreaser open area, unless necessary to meet OSHA
- 19 requirements (OSHA is the U.S. Occupational Safety and Health Administration; in North Carolina
- 20 the N.C. Labor Department has delegation of OSHA programs); and
- 21 (14) provide a permanent, conspicuous label, summarizing the operating procedures of ~~Subparagraph (4)~~
- 22 ~~through (12) of this Paragraph.~~ 15A NCAC 02D .0930(c)(4) through (12).
- 23 (f) With the exception stated in ~~Paragraph (e) of this Regulation,~~ 15A NCAC 02D .0930(c), the owner or operator of
- 24 a conveyorized degreaser shall:
- 25 (1) not use workplace fans near the degreaser opening, nor provide exhaust ventilation exceeding 65
- 26 cubic feet per minute per square foot of degreaser opening, unless necessary to meet OSHA
- 27 requirements;
- 28 (2) install one of the following control devices:
- 29 (A) refrigerated chiller; or
- 30 (B) carbon adsorption system, with ventilation greater than or equal to 50 cubic feet per minute
- 31 per square foot of air/vapor area (when downtime covers are open), and exhausting less
- 32 than 25 parts per million of solvent by volume averaged over a complete adsorption cycle;
- 33 (3) equip the cleaner with equipment, such as a drying tunnel or rotating (tumbling) basket, sufficient
- 34 to prevent cleaned parts from carrying out solvent liquid or vapor;
- 35 (4) provide the following safety switches or devices:
- 36 (A) a condenser flow switch and thermostat or other device which prevents heat input if the
- 37 condenser coolant is either not circulating or too ~~warm,~~ warm;

- 1 (B) a spray safety switch or other device which shuts off the spray pump or the conveyor if the
2 vapor level drops more than 10 ~~inches,~~ inches; and
3 (C) a vapor level control thermostat or other device which prevents heat input when the vapor
4 level rises too high;
- 5 (5) minimize openings during operation so that entrances and exits will silhouette workloads with an
6 average clearance between the parts and the edge of the degreaser opening of less than four inches
7 or less than 10 percent of the width of the opening;
- 8 (6) provide downtime covers for closing off the entrance and exit during shutdown hours;
- 9 (7) minimize carryout emissions by:
- 10 (A) racking parts for best drainage; and
11 (B) maintaining the vertical conveyor speed at less than 11 feet per minute;
- 12 (8) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to
13 another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into
14 the atmosphere;
- 15 (9) repair solvent leaks immediately, or shut down the degreaser;
- 16 (10) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water
17 separator; and
- 18 (11) place downtime covers over entrances and exits or conveyORIZED degreasers immediately after the
19 conveyors and exhausts are shutdown and not remove them until just before start-up.

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21 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
22 *Eff. July 1, 1979;*
23 *Amended Eff. March 1, 1991; December 1, 1989; January 1, ~~1985-1985;~~*
24 *Readopted Eff.*

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1 15A NCAC 02D .0931 is proposed for readoption without substantive changes as follows:

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3 **15A NCAC 02D .0931 CUTBACK ASPHALT**

4 (a) For the purpose of this ~~Regulation, Rule,~~ the following definitions apply:

- 5 (1) "Asphalt" means a dark-brown to black cementitious ~~material (solid, material, solid,~~ semisolid, or
6 liquid in ~~consistency)~~ consistency, in which the predominating constituents are bitumens which
7 occur in nature as such or which are obtained as residue in refining petroleum.
- 8 (2) "Cutback asphalt" means asphalt cement which has been liquefied by blending with petroleum
9 solvents (~~diluents~~) or diluents. Upon exposure to atmospheric conditions, the diluents evaporate,
10 leaving the asphalt cement to perform its function.
- 11 (3) "Emulsified asphalt" means an emulsion of asphalt cement and water which contains a small amount
12 of an emulsifying agent; a heterogeneous system containing two normally immiscible ~~phases~~
13 (~~asphalt phases, asphalt and water~~) water, in which the water forms the continuous phase of the
14 emulsion, and minute globules of asphalt form the discontinuous phase.
- 15 (4) "Penetrating prime coat" means an application of low-viscosity liquid asphalt to an absorbent
16 surface. It is used to prepare an untreated base for an asphalt surface. The prime penetrates the base
17 and plugs the voids, hardens the top, and helps bind it to the overlying asphalt course. It also reduces
18 the necessity of maintaining an untreated base course prior to placing the asphalt pavement.

19 (b) This ~~Regulation Rule~~ applies to the manufacture and use of cutback asphalts for the purpose of paving or
20 maintaining roads, highways, streets, parking lots, driveways, curbs, sidewalks, ~~airfields (runways, airfields, runways,~~
21 taxiways, and parking ~~aprons), aprons,~~ recreational ~~facilities (tennis facilities, tennis courts, playgrounds, and trails),~~
22 trails, and other similar structures.

23 (c) Cutback asphalt shall not be manufactured, mixed, stored, used, or applied except where:

- 24 (1) ~~Long life (one long life, of one month or more) more,~~ stockpile storage is necessary;
- 25 (2) ~~The the~~ use or application at ambient temperatures less than 50°F, as measured at the nearest
26 National Weather Service Field Local Office or Federal Aviation Administration Surface Weather
27 Observation Station is necessary;
- 28 (3) ~~The the~~ cutback asphalt is to be used solely as a penetrating prime coat; or
- 29 (4) ~~The the~~ user can demonstrate to the Director that there are no volatile organic compound emissions
30 under conditions of normal use.

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32 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
33 *Eff. July 1, 1979;*
34 *Amended Eff. December 1, 1989; January 1, 1985; June 1, ~~1980-1980:~~*
35 *Readopted Eff. _____.*
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37

1 15ANCAC 02D .0932 is proposed for readoption with substantive changes as follows:

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3 **15A NCAC 02D .0932 GASOLINE ~~TRUCK~~ CARGO TANKS AND VAPOR COLLECTION SYSTEMS**

4 (a) For the purposes of this Rule, the following definitions apply:

- 5 (1) "Bottom filling" means the filling of a cargo tank ~~truck~~ or stationary storage tank through an opening
6 ~~that is~~ flush with the tank bottom.
- 7 (2) "Bulk gasoline plant" means a gasoline storage and distribution facility ~~that has~~ with an average
8 daily throughput of less than 20,000 gallons of gasoline and which usually receives gasoline from
9 bulk terminals by trailer transport, stores it in tanks, and subsequently dispenses it via ~~account trucks~~
10 cargo tanks to local farms, businesses, and service stations.
- 11 (3) "Bulk gasoline terminal" means:
- 12 (A) ~~breakout tanks~~ a pipeline breakout station of an interstate oil pipeline facility; or
- 13 (B) a gasoline storage facility that usually receives gasoline from refineries primarily by
14 pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail
15 accounts primarily by ~~tank truck~~; cargo tank; and has an average daily throughput of more
16 than 20,000 gallons of gasoline.
- 17 (4) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from
18 sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants,
19 gasoline dispensing facilities and gasoline service stations.
- 20 (5)(4) ~~"Certified facility" means any facility that has been certified under Rule .0960 of this Section to~~
21 ~~perform leak tightness tests on truck tanks.~~ "Cargo tank testing facility" means any facility
22 complying with Subpart F "Registration of Cargo Tank and Cargo Tank Motor Vehicle
23 Manufacturers, Assemblers, Repairers, Inspectors, Testers, and Design Certifying Engineers" of 49
24 CFR Part 107.
- 25 (6) "Cargo tank vapor collection equipment" means any piping, hoses, and devices on the cargo tank
26 used to collect and route gasoline vapors in the tank to or from the bulk gasoline terminal, bulk
27 gasoline plant, gasoline dispensing facility or gasoline service station vapor control system or vapor
28 balance system.
- 29 (7)(5) "Gasoline" means any petroleum distillate having a ~~Reid vapor pressure of 4.0 psia~~ Reid Vapor
30 Pressure (RVP) of 4.0 psi or greater.
- 31 (8)(6) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline
32 tanks from stationary storage tanks.
- 33 (9)(7) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the
34 motoring public from stationary storage tanks.
- 35 (8) ~~"Truck tank" means the storage vessels of trucks or trailers used to transport gasoline from sources~~
36 ~~of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline~~
37 ~~dispensing facilities and gasoline service stations.~~

1 ~~(9) "Truck tank vapor collection equipment" means any piping, hoses, and devices on the truck tank~~
2 ~~used to collect and route gasoline vapors in the tank to or from the bulk gasoline terminal, bulk~~
3 ~~gasoline plant, gasoline dispensing facility or gasoline service station vapor control system or vapor~~
4 ~~balance system.~~

5 (10) "Vapor balance system" means a combination of pipes or hoses that create a closed system between
6 the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the
7 receiving tank are transferred to the tank being unloaded.

8 (11) "Vapor collection system" means a vapor balance system or any other system used to collect and
9 control emissions of volatile organic compounds.

10 (b) This Rule applies to gasoline ~~truck cargo~~ tanks that are equipped for vapor collection and to vapor control systems
11 at bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations equipped
12 with vapor balance or vapor control systems.

13 (c) ~~Gasoline Truck Tanks,~~ For cargo tanks, the following requirements shall apply:

14 (1) Gasoline ~~truck cargo~~ tanks and their vapor collection systems shall be tested annually by a ~~certified~~
15 ~~cargo tank testing facility. The test procedure that shall be used is described in Section .2600 of this~~
16 ~~Subchapter and is according to Rule .0912 of this Section. The facility shall follow test procedure~~
17 ~~as defined by 15A NCAC 02D .2615 to certify the gasoline cargo tank leak tight. The gasoline truck~~
18 ~~cargo tank shall not be used if it sustains a pressure change greater than 3.0 inches of water in five~~
19 ~~minutes when pressurized to a gauge pressure of 18 inches of water or when evacuated to a gauge~~
20 ~~pressure of 6.0 inches of water, unless it is certified leak tight.~~

21 (2) Each gasoline ~~truck cargo~~ tank that has been certified leak tight, according to Subparagraph (1) of
22 this Paragraph shall display a sticker near the Department of Transportation certification plate
23 required by 49 CFR 178.340-10b.

24 (3) There shall be no liquid leaks from any gasoline ~~truck cargo~~ tank.

25 (4) Any ~~truck cargo~~ tank with a leak equal to or greater than 100 percent of the lower explosive limit,
26 as detected by a combustible gas detector using the test procedure described in Rule .2615 of this
27 Subchapter shall not be used beyond 15 days after the leak has been discovered, unless the leak has
28 been repaired and the ~~truck cargo~~ tank has been certified to be leak tight according to Subparagraph (1)
29 of this Paragraph.

30 (5) The owner or operator of a gasoline ~~truck tanks~~ ~~truck cargo~~ tank with a vapor collection system shall
31 maintain records of all ~~certification-leak~~ testing and repairs. The records shall identify the gasoline
32 ~~truck cargo~~ tank, the date of the test or repair; and, if applicable, the type of repair and the date of
33 retest. The records of ~~certification-leak~~ tests shall include:

34 (A) ~~the gasoline truck tank identification number; name, address, and telephone number of~~
35 ~~cargo tank testing facility performing the leak test;~~

36 (B) ~~the initial test pressure and the time of the reading; name and signature of the individual~~
37 ~~performing the leak test;~~

- 1 (C) ~~the final test pressure and the time of the reading;~~name and address of the owner of the
2 tank;
- 3 (D) ~~the initial test vacuum and the time of reading;~~identification number of the tank;
- 4 (E) ~~the final test vacuum and the time of the reading;~~documentation of tests performed
5 including the date and summary of results;
- 6 (F) ~~the date and location of the tests;~~continued qualification statement and returned to service
7 status; and
- 8 (G) ~~the NC sticker number issued; and~~list or description of identified corrective repairs to the
9 tank, if none are performed then the report shall state "no corrective repairs performed."
- 10 (H) ~~the final change in pressure of the internal vapor value test.~~

11 (6) A copy of the most recent ~~certification-leak testing~~ report shall be kept with the ~~truck cargo~~ tank.
12 The owner or operator of the ~~truck cargo~~ tank shall also file a copy of the most recent ~~certification~~
13 ~~test-leak testing report~~ with each bulk gasoline terminal that loads the ~~truck cargo~~ tank. The records
14 shall be maintained for at least two years after the date of the testing or repair, and copies of such
15 records shall be made available within a reasonable time to the Director upon written request.

16 (d) ~~Bulk Gasoline Terminals, Bulk Gasoline Plants Equipped With Vapor Balance or Vapor Control Systems For~~
17 bulk gasoline terminals, bulk gasoline plants equipped with vapor balance or vapor control systems, the following
18 requirements shall apply:

- 19 (1) The vapor collection system and vapor control system shall be designed and operated to prevent
20 gauge pressure in the ~~truck cargo~~ tank from exceeding 18 inches of water and to prevent a vacuum
21 of greater than six inches of water.
- 22 (2) During loading and unloading operations there shall be:
 - 23 (A) no vapor leakage from the vapor collection system such that a reading equal to or greater
24 than 100 percent of the lower explosive limit at one inch around the perimeter of each
25 potential leak source as detected by a combustible gas detector using the test procedure
26 described in ~~Rule .2615 of this Subchapter;~~ 15A NCAC 02D .2615; and
 - 27 (B) no liquid leaks.
- 28 (3) If a leak is discovered that exceeds the limit in Subparagraph (2) of this Paragraph:
 - 29 (A) For bulk gasoline plants, the vapor collection system or vapor control system (and therefore
30 the source) shall not be used beyond 15 days after the leak has been discovered, unless the
31 leak has been repaired and the system has been retested and found to comply with
32 Subparagraph (2) of this Paragraph;
 - 33 (B) For bulk gasoline terminals, the vapor collection system or vapor control system shall be
34 repaired following the procedures in ~~Rule .0927 of this Section;~~ 15A NCAC 02D .0927.
- 35 (4) The owner or operator of a vapor collection system at a bulk gasoline plant or a bulk gasoline
36 terminal shall test, according to ~~Rule .0912 of this Section;~~ 15A NCAC 02D .0912, the vapor
37 collection system at least once per year. If after two complete annual checks no more than 10 leaks

1 are found, the Director ~~may~~shall allow less frequent monitoring. If more than 20 leaks are found,
2 the Director ~~may~~shall require ~~that~~ the frequency of monitoring be increased.

3 (5) The owner or operator of a vapor control systems at bulk gasoline terminals, bulk gasoline plants,
4 gasoline dispensing facilities, and gasoline service stations equipped with vapor balance or vapor
5 control systems shall maintain records of all certification testing and repairs. The records shall
6 identify the vapor collection system, or vapor control system; the date of the test or repair; and, if
7 applicable, the type of repair and the date of retest.

8
9 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
10 Eff. July 1, 1980;
11 Amended Eff. August 1, 2008; June 1, 2008; January 1, 2007; April 1, 2003; August 1, 2002; July
12 1, 1994; December 1, 1989; January 1, ~~1985~~1985;
13 Readopted Eff. _____.

1 15A NCAC 02D .0933 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0933 PETROLEUM LIQUID STORAGE IN EXTERNAL FLOATING ROOF TANKS**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes
6 in the temperature or pressure and remains liquid at standard conditions.
- 7 (2) "Crude oil" means a naturally occurring mixture consisting of hydrocarbons or sulfur, nitrogen or
8 oxygen derivatives of hydrocarbons or mixtures thereof which is a liquid in the reservoir at standard
9 conditions.
- 10 (3) "Custody transfer" means the transfer of produced crude oil or condensate, after processing or
11 treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines
12 or any other forms of transportation.
- 13 (4) "External floating roof" means a storage vessel cover in an open top tank consisting of a double
14 deck or pontoon single deck which rests upon and is supported by the petroleum liquid being
15 contained and is equipped with a closure seal or seals to close the space between the roof edge and
16 tank shell.
- 17 (5) "Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floated
18 upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the
19 space between the roof edge and tank shell.
- 20 (6) "Liquid-mounted seal" means a primary seal mounted so the bottom of the seal covers the liquid
21 surface between the tank shell and the floating roof.
- 22 (7) "Vapor-mounted seal" means a primary seal mounted so there is an annular vapor space underneath
23 the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank shell, the
24 liquid surface, and the floating roof.
- 25 (8) "Petroleum liquids" means crude oil, condensate, and any finished or intermediate products
26 manufactured or extracted in a petroleum refinery.

27 (b) This Rule applies to all external floating roof tanks with capacities greater than 950 barrels containing petroleum
28 liquids whose true vapor pressure exceed 1.52 pounds per square inch absolute.

29 (c) This Rule does not apply to petroleum liquid storage vessels:

- 30 (1) that have external floating roofs that have capacities less than 10,000 barrels and that are used to
31 store produced crude oil and condensate prior to custody transfer;
- 32 (2) that have external floating roofs and that store waxy, heavy-pour crudes;
- 33 (3) that have external floating roofs, and that contain a petroleum liquid with a true vapor pressure less
34 than 4.0 pounds per square inch absolute and:
- 35 (A) ~~The~~the tanks are of welded construction; and
- 36 (B) ~~The~~the primary seal is a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-
37 mounted filled type seal, or any other closure device of demonstrated equivalence; or

1 (4) that have fixed roofs with or without internal floating roofs.

2 (d) With the exceptions stated in Paragraph (c) of this Rule, an external floating roof tank subject to this Rule shall
3 not be used unless:

4 (1) The tank has:

5 (A) a continuous secondary seal extending from the floating roof to the tank ~~wall-wall, (a~~
6 known as a rim-mounted secondary); secondary seal;

7 (B) a metallic-type shoe primary seal and a secondary seal from the top of the shoe seal to the
8 tank ~~wall-wall, (shoe-mounted~~known as a shoe-mounted secondary seal); or

9 (C) a closure or other control device demonstrated to have an efficiency equal to or greater than
10 that required under Part (A) or (B) of this Subparagraph;

11 (2) The seal closure devices meet the following requirements:

12 (A) There shall be no visible holes, tears, or other openings in the seal or seal fabric;

13 (B) The seal shall be intact and uniformly in place around the circumference of the floating
14 roof between the floating roof and the tank wall; and

15 (C) For vapor mounted primary seals, the gap-area of gaps exceeding 0.125 inch in width
16 between the secondary seal and the tank wall shall not exceed 1.0 square inch per foot of
17 tank diameter;

18 (3) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and
19 leg sleeves, are:

20 (A) provided with a projection below the liquid surface; and

21 (B) equipped with covers, seals, or lids that remain in a closed position at all times except when
22 in actual use;

23 (4) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the
24 roof leg supports;

25 (5) Rim vents are set to open only when the roof is being floated off the roof leg supports or at the
26 manufacturer's recommended setting;

27 (6) Any emergency roof drains are provided with slotted membrane fabric covers or equivalent covers
28 that cover at least 90 percent of the area at the opening;

29 (7) Routine visual inspections are conducted once per month;

30 (8) For tanks equipped with a vapor-mounted primary seal, the secondary seal gap measurements are
31 made annually in accordance with Paragraph (e) of this Rule; and

32 (9) Records are maintained ~~in accordance with Rule .0903 of this Section and include:~~pursuant to 15A
33 NCAC 02D .0903 including:

34 (A) reports of the results of inspections conducted under Subparagraph (7) and (8) of this
35 Paragraph;

36 (B) a record of the average monthly storage temperature and the true vapor pressures or Reid
37 vapor pressures of the petroleum liquids stored; and

1 (C) records of the throughput quantities and types of volatile petroleum liquids for each storage
2 vessel.

3 (e) The secondary seal gap area is determined by measuring the length and width of the gaps around the entire
4 circumference of the secondary seal. Only gaps equal to or greater than 0.125 inch are used in computing the gap area.
5 The area of the gaps are accumulated to determine compliance with Part (d)(2)(C) of this Rule.

6 (f) Notwithstanding the definition of volatile organic compound found in ~~Rule .0901(28) of this Section,~~ 15A NCAC
7 02D .0901, the owner or operator of a petroleum liquid storage vessel with an external floating roof not equipped with
8 a secondary seal or approved alternative, that contains a petroleum liquid with a true vapor pressure greater than 1.0
9 pound per square inch shall maintain records of the average monthly storage temperature, the type of liquid, throughput
10 quantities, and the maximum true vapor pressure for all petroleum liquids with a true vapor pressure greater than 1.0
11 pound per square inch.

12
13 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
14 *Eff. July 1, 1980;*
15 *Amended Eff. June 1, 2004; July 1, 1994; March 1, 1991; December 1, 1989; January 1, ~~1985-1985;~~*
16 *Readopted Eff. _____.*
17
18

1 15A NCAC 02D .0935 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0935 FACTORY SURFACE COATING OF FLAT WOOD PANELING**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) Flat wood paneling coatings means wood paneling product that are any interior, exterior or tileboard
6 ~~(class-class I hardboard)~~ hardboard panel to which a protective, decorative, or functional material
7 or layer has been applied.
8 (2) "Hardboard" is a panel manufactured primarily from inter felted lignocellulosic fibers which are
9 consolidated under heat and pressure in a hot-press.
10 (3) "Tileboard" means a premium interior wall paneling product made of hardboard that is used in high
11 moisture area of the home.

12 (b) This Rule applies to each flat wood paneling coatings source whose volatile organic compounds emissions exceed
13 the threshold established in ~~Paragraph (b) of Rule .0902 of this Section~~ 15A NCAC 02D .0902(b) at the facilities with
14 flat wood paneling coating applications for the following products:

- 15 (1) class II finishes on hardboard panels;
16 (2) exterior siding;
17 (3) natural finish hardwood plywood panels;
18 (4) printed interior panels made of hardwood, plywood, and thin particleboard; and
19 (5) tileboard made of hardboard.

20 (c) Emissions of volatile organic compounds from any ~~factory facility~~ finished flat wood product operation subject
21 to this Rule shall not exceed 2.1 pounds of volatile organic compounds per gallon material excluding water and exempt
22 compounds ~~(2.9- or 2.9 pounds of volatile organic compounds per gallon solids.)~~ solids.

23 (d) EPA Method 24 ~~(40 CFR Part 60, Appendix A-7)~~ of Appendix A to 40 CFR Part 60 shall be used to determine
24 the volatile organic compounds content of coating materials used at surface coating of flat wood paneling facilities
25 unless the facility maintains records to document the volatile organic compounds content of coating materials from
26 the manufacturer.

27 (e) Any facility that meet ~~definition~~ applicability requirements of Paragraph (b) of this Rule and which has chosen to
28 use add-on controls for flat wood paneling coating operation rather than the emission limits established in Paragraph
29 (c) of this Rule shall install control equipment with an overall control efficiency of 90 percent or use a combination
30 of coating and add-on control equipment on a flat wood paneling coating operation to meet limits established in
31 Paragraph (c) of this Rule.

32 (f) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this~~
33 Section. 15A NCAC 02D .0903 and .0958.

34
35 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

36 *Eff. July 1, 1980;*

37 *Amended Eff. September 1, 2010; July 1, 1996; December 1, 1989; January 1, ~~1985-1985~~;*

1
2
3

Readopted Eff.

1 15A NCAC 02D .0937 is proposed for reoption without substantive changes as follows:

2
3 **15A NCAC 02D .0937 MANUFACTURE OF PNEUMATIC RUBBER TIRES**

4 (a) For the purpose of this Rule, the following definitions shall apply:

5 (1) "Bead dipping" means the dipping of an assembled tire bead into a solvent based cement.

6 (2) "Green tires" means assembled tires before molding and ~~curing have occurred~~ curing.

7 (3) "Green tire spraying" means ~~the spraying of green tires, both inside and outside, with release~~
8 ~~compounds which help remove air from the tire during molding and prevent the tire from sticking~~
9 ~~to the mold after curing.~~ spray coating release compounds inside and outside of green tires to remove
10 air during the molding process and prevent the tire from sticking to the mold after curing completion.

11 (4) "Pneumatic rubber tire manufacture" means the production of passenger car tires, light and medium
12 truck tires, and other tires manufactured on assembly lines.

13 (5) "Tread end cementing" means the application of a solvent based cement to the tire tread ends.

14 (6) "Undertread cementing" means the application of a solvent based cement to the underside of a tire
15 tread.

16 (b) This Rule applies to undertread cementing, tread end cementing, bead dipping, and green tire spraying operations
17 of pneumatic rubber tire manufacturing.

18 (c) ~~With the exception stated in Paragraph (d) of this Rule, emissions~~ Emissions of volatile organic compounds from
19 any pneumatic rubber tire manufacturing plant shall not exceed:

20 (1) 25 grams of volatile organic compounds per tire from each undertread cementing ~~operation,~~
21 operation;

22 (2) 4.0 grams of volatile organic compounds per tire from each tread end cementing ~~operation,~~
23 operation;

24 (3) 1.9 grams of volatile organic compounds per tire from each bead dipping ~~operation,~~ operation; or

25 (4) 24 grams of volatile organic compounds per tire from each green tire spraying operation.

26 (d) If the total volatile organic compound emissions from ~~all~~ undertread cementing, tread end cementing, bead
27 dipping, and green tire spraying operations at a pneumatic rubber tire manufacturing facility does not exceed 50 grams
28 per tire, Paragraph (c) of this Rule shall not apply.

29
30 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

31 *Eff. July 1, 1980;*

32 *Amended Eff. July 1, 1996; December 1, 1989; January 1, 1985.*

33 *Readopted Eff. _____.*
34
35

1 15A NCAC 02D .0943 is proposed for reoption without substantive changes as follows:

2
3 **15A NCAC 02D .0943 SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING**

4 (a) For the purposes of this Rule, the following definitions shall apply:

- 5 (1) "Closed vent system" means a system which is not open to the atmosphere and which is composed
6 of piping, connections, and if necessary, flow inducing devices that transport gas or vapor from a
7 fugitive emission source to an enclosed combustion device or vapor recovery system.
- 8 (2) "Enclosed combustion device" means any combustion device which is not open to the atmosphere
9 such as a process heater or furnace, but not a flare.
- 10 (3) "Fugitive emission source" means each pump, valve, safety/relief valve, open-ended valve, flange
11 or other connector, compressor, or sampling system.
- 12 (4) "In gas vapor service" means that the fugitive emission source contains process fluid that is in the
13 gaseous state at operating conditions.
- 14 (5) "In light liquid service" means that the fugitive emission source contains a liquid having:
- 15 (A) a vapor pressure of one or more of the components greater than 0.3 kilopascals at 201° C;
16 and
- 17 (B) a total concentration of the pure components having a vapor pressure greater than 0.3
18 kilopascals at 201° C equal to or greater than 10 percent by weight, and the fluid is a liquid
19 at operating conditions.
- 20 (6) "Open-ended valve" means any valve, except safety/relief valves, with one side of the valve seat in
21 contact with process fluid and one side that is open to the atmosphere, either directly or through
22 open piping.
- 23 (7) "Polymer manufacturing" means the industry that produces, as intermediates or final products,
24 polyethylene, polypropylene, or polystyrene.
- 25 (8) "Process unit" means equipment assembled to produce, as intermediates or final products,
26 polyethylene, polypropylene, polystyrene, or one or more of the chemicals listed in 40 CFR 60.489.
27 A process unit can operate independently if supplied with sufficient feed or raw materials and
28 sufficient storage facilities for the final product.
- 29 (9) "Quarter" means a ~~three-month~~ three-month period. The first quarter concludes at the end of the
30 last full month during the 180 days following initial start-up.
- 31 (10) "Synthetic organic chemical manufacturing" means the industry that produces, as intermediates or
32 final products, one or more of the chemicals listed in 40 CFR Part 60.489.

33 (b) This Rule applies to synthetic organic chemicals manufacturing facilities and polymer manufacturing facilities.

34 (c) The owner or operator of a synthetic organic chemical manufacturing facility or a polymer manufacturing facility
35 shall not cause, allow or permit:

- 36 (1) any liquid leakage of volatile organic compounds; or

1 (2) any gaseous leakage of volatile organic compound of 10,000 ppm or greater from any fugitive
2 emission source.

3 The owner or operator of these facilities shall control emissions of volatile organic compounds from open-ended
4 valves as described in Paragraph (f) of this Rule.

5 (d) The owner or operator shall visually inspect each week every pump in light liquid service. -If there are indications
6 of liquid leakage, the owner or operator shall repair the pump within 15 days after detection except as provided in
7 Paragraph (k) of this Rule.

8 (e) Using procedures in ~~Section .2600 of this Section,~~ 15A NCAC 02D .2600, the owner or operator shall monitor
9 each pump, valve, compressor and safety/relief valve in gas/vapor service or in light liquid service for gaseous leaks
10 at least once each quarter. -The owner or operator shall monitor safety/relief valves after each overpressure relief to
11 ensure the valve has properly reseated. If a volatile organic compound concentration of 10,000 ppm or greater is
12 measured, the owner or operator shall repair the component within 15 days after detection except as provided in
13 Paragraph (k) of this Rule. Exceptions to the quarterly monitoring frequency are provided for in Paragraphs (h), (i)
14 and (j) of this Rule.

15 (f) The owner or operator shall install on each open-ended valve:

16 (1) ~~a cap,~~ cap;

17 (2) a blind ~~flange,~~ flange;

18 (3) ~~a plug,~~ plug; or

19 (4) a second closed ~~valve,~~ valve which shall remained attached to seal the open end at all times except
20 during operations requiring process fluid flow through the opened line.

21 (g) If any fugitive emission source appears to be leaking on the basis of sight, smell, or sound, it shall be repaired
22 within 15 days after detection except as provided in Paragraph (k) of this Rule.

23 (h) If after four consecutive quarters of monitoring no more than two percent of the valves in gas/vapor service or in
24 light liquid service are found leaking more than 10,000 ppm of volatile organic compounds, then the owner or operator
25 may monitor valves for gaseous leaks only every third quarter. If the number of these valves leaking more than 10,000
26 ppm of volatile organic compounds remains at or below two percent, these valves need only be monitored for gaseous
27 leaks every third quarter. However, if more than two percent of these valves are found leaking more than 10,000 ppm
28 of volatile organic compounds, they shall be monitored every quarter until four consecutive quarters are monitored
29 which have no more than two percent of these valves leaking more than 10,000 ppm of volatile organic compounds.

30 (i) When a fugitive emission source is unsafe to monitor because of extreme temperatures, pressures, or other reasons,
31 the owner or operator of the facility shall monitor the fugitive emission source only when process conditions are such
32 that the fugitive emission source is not operating under extreme conditions. The Director ~~may~~ shall allow monitoring
33 of these fugitive emission sources less frequently than each quarter, provided they are monitored at least once per
34 year.

35 (j) Any fugitive emission source more than 12 feet above a permanent support surface ~~may~~ shall be monitored ~~only~~
36 once per year.

1 (k) The repair of a fugitive emission source may be delayed until the next turnaround if the repair is technically
2 infeasible without a complete or partial shutdown of the process unit.

3 (l) The owner or operator of the facility shall maintain records in accordance with ~~Rule .0903 of this Section, 15A~~
4 NCAC 02D .0903, which shall include:

- 5 (1) identification of the source being inspected or ~~monitored~~, monitored;
- 6 (2) dates of inspection or ~~monitoring~~, monitoring;
- 7 (3) results of inspection or ~~monitoring~~, monitoring;
- 8 (4) action taken if a leak was ~~detected~~, detected;
- 9 (5) type of repair made and when it was ~~made~~, completed; and
- 10 (6) if the repair ~~were~~ was delayed, an explanation as to why.

11

12 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 150B-14(c);*
13 *Eff. May 1, 1985;*
14 *Amended Eff. June 1, 2008; March 1, 1991; December 1, ~~1989~~ 1989;*
15 *Readopted Eff. _____.*

16

17

1 15A NCAC 02D .0944 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0944 MANUFACTURE OF POLYETHYLENE: POLYPROPYLENE AND**
4 **POLYSTYRENE**

5 (a) For the purpose of this ~~Regulation, Rule~~, the following definitions shall apply:

- 6 (1) "By-product and diluent recovery operation" means the process that separates the diluent from the
7 by-product (atactic) and purifies and dries the diluent for recycle.
8 (2) "Continuous mixer" means the process that mixes polymer with anti-oxidants.
9 (3) "Decanter" means the process that separates the diluent/crude product slurry from the alcohol-water
10 solution by decantation.
11 (4) "Ethylene recycle treater" means the process that removes water and other impurities from the
12 recovered ethylene.
13 (5) "High-density polyethylene plants using liquid phase slurry processes" means plants that produce
14 high-density polyethylene in which the product, polyethylene, is carried as a slurry in a continuous
15 stream of process diluent, usually pentane or isobutane.
16 (6) "Neutralizer" means the process that removes catalyst residue from the diluent/crude produce slurry.
17 (7) "Polypropylene plants using liquid phase process" means plants that produce polypropylene in
18 which the product, polypropylene, is carried as a slurry in a continuous stream of process diluent,
19 usually hexane.
20 (8) "Polystyrene plants using continuous processes" means plants which produce polystyrene in which
21 the product, polystyrene, is transferred in a continuous stream in a molten state.
22 (9) "Product devolatilizer system" means the process that separates unreacted styrene monomer and by
23 products from the polymer melt.
24 (10) "Reactor" means the process in which the polymerization takes place.

25 (b) This ~~Regulation, Rule~~ applies to:

- 26 (1) polypropylene plants using liquid phase ~~processes, processes;~~
27 (2) high-density polyethylene plants using liquid phase slurry ~~processes, processes;~~ and
28 (3) polystyrene plants using continuous processes.

29 (c) For polypropylene plants subject to this ~~Regulation, Rule~~, the emissions of volatile organic compounds shall be
30 reduced by 98 percent by weight or to 20 ppm, whichever is less stringent, from:

- 31 (1) reactor ~~vents, vents;~~
32 (2) decanter ~~vents, vents;~~
33 (3) neutralizer ~~vents, vents;~~
34 (4) by-product and diluent recovery operation ~~vents, vents;~~
35 (5) dryer ~~vents, vents;~~ and
36 (6) extrusion and pelletizing vents.

1 (d) For high-density polyethylene plants subject to this ~~Regulation, Rule,~~ the emissions of volatile organic compounds
2 shall be reduced by 98 percent by weight or to 20 ppm, whichever is less stringent, from:

- 3 (1) ethylene recycle treater ~~vents, vents;~~
- 4 (2) dryer ~~vents, vents;~~ and
- 5 (3) continuous mixer vents.

6 (e) For polystyrene plants subject to this ~~Regulation, Rule,~~ the emissions of volatile organic compounds shall not
7 exceed 0.24 pounds per ton of product from the product devolatilizer system.

8 (f) If flares are used to comply with this ~~Regulation, Rule~~ all of the following conditions shall be met:

- 9 (1) ~~Visible-visible~~ emissions shall not exceed five minutes in any two-hour ~~period, period;~~
- 10 (2) ~~A~~ a flame in the flare shall be ~~present, present;~~
- 11 (3) ~~If~~ if the flame is steam-assisted or air-assisted, the net heating value shall be at least 300 ~~BTU~~ Btu
12 per standard cubic foot. If the flame is non-assisted, the net heating value shall be at least 200
13 ~~BTU~~ Btu per standard cubic ~~foot, foot;~~ and
- 14 (4) ~~If~~ if the flare is steam-assisted or non-assisted, the exit velocity shall be no more than 60 feet per
15 second. If the flare is air-assisted, the exit velocity shall be no more than $(8.706 + 0.7084 HT)$ feet
16 per second, where HT is the net heating value.

17 A flare that meets the conditions given in Subparagraphs (1) through (4) of this Paragraph are presumed to achieve
18 98 percent destruction of volatile organic compounds by weight. If the owner or operator of the source chooses to
19 use a flare that fails to meet one or more of these conditions, he or she shall demonstrate to the Director that the flare
20 shall destroy at least 98 percent of the volatile organic compounds by weight. To determine if the specifications for
21 the flare are being met, the owner or operator of a source using the flare to control volatile organic compound
22 emissions shall install, operate, and maintain necessary monitoring instruments and shall keep ~~necessary~~ records as
23 required by ~~Regulation .0903 of this Section.~~ 15A NCAC 02D .0903.

24
25 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
26 Eff. May 1, ~~1985, 1985;~~
27 Readopted Eff.
28
29

1 15A NCAC 02D .0945 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0945 PETROLEUM DRY CLEANING**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "Cartridge filter" means perforated canisters containing filtration paper or filter paper and activated
6 carbon that are used in a pressurized system to remove solid particles and fugitive dyes from
7 soil-laden solvent, together with the piping and ductwork used in the installation of this device.
- 8 (2) "Containers and conveyors of solvent" means piping, ductwork, pumps, storage tanks, and other
9 ancillary equipment that are associated with the installation and operation of washers, dryers, filters,
10 stills, and settling tanks.
- 11 (3) "Dry cleaning" means a process for the cleaning of textiles and fabric products in which articles are
12 washed in a non-aqueous solution ~~(solvent)~~ or solvent and then dried by exposure to a heated air
13 stream.
- 14 (4) "Dryer" means a machine used to remove petroleum solvent from articles of clothing or other textile
15 or leather goods, after washing and removing of excess petroleum solvent, together with the piping
16 and ductwork used in the installation of this device.
- 17 (5) "Perceptible leaks" means any petroleum solvent vapor or liquid leaks that are ~~conspicuous from~~
18 ~~visual observation or that bubble after application of a soap solution,~~ visible, such as pools or
19 droplets of liquid, open containers of solvent, or solvent laden waste standing open to the
20 ~~atmosphere.~~ atmosphere, or bubble after application of a soap solution.
- 21 (6) "Petroleum solvent" means organic material produced by petroleum distillation comprising of a
22 hydrocarbon range of eight to 12 carbon atoms per organic molecule that exists as a liquid under
23 standard conditions.
- 24 (7) "Petroleum solvent dry cleaning" means a dry cleaning facility that uses petroleum solvent in a
25 combination of washers, dryers, filters, stills, and settling tanks.
- 26 (8) "Settling tank" means a container which gravimetrically separates oils, grease, and dirt from
27 petroleum solvent, together with the piping and ductwork used in the installation of the device.
- 28 (9) "Solvent filter" means a discrete solvent filter unit containing a porous medium which traps and
29 removes contaminants from petroleum solvent, together with the piping and ductwork used in the
30 installation of this device.
- 31 (10) "Solvent recovery dryer" means a class of dry cleaning dryers that employs a condenser to condense
32 and recover solvent vapors evaporated in a closed-loop stream of heated air, together with the piping
33 and ductwork used in the installation of this device.
- 34 (11) "Still" means a device used to volatilize, separate, and recover petroleum solvent from contaminated
35 solvent, together with the piping and ductwork used in the installation of this device.

1 (12) "Washer" means a machine which agitates fabric articles in a petroleum solvent bath and spins the
2 articles to remove the solvent, together with the piping and ductwork used in the installation of this
3 device.

4 (b) This Rule applies to petroleum solvent washers, dryers, solvent filters, settling tanks, stills, and other containers
5 and conveyors of petroleum solvent that are used in petroleum solvent dry cleaning facilities that consume 32,500
6 gallons or more of petroleum solvent annually.

7 (c) The owner or operator of a petroleum solvent dry cleaning dryer subject to this Rule shall:

8 (1) limit emissions of volatile organic compounds to the atmosphere to an average of 3.5 pounds of
9 volatile organic compounds per 100 pounds dry weight of articles dry cleaned, or

10 (2) install and operate a solvent recovery dryer in a manner such that the dryer remains closed and the
11 recovery phase continues until a final recovered solvent flow rate of 50 milliliters per minute is
12 attained.

13 (d) The owner or operator of a petroleum solvent filter subject to this Rule shall:

14 (1) reduce the volatile organic compound content in all filter wastes to 1.0 pound or less per 100 pounds
15 dry weight of articles dry cleaned, before disposal and exposure to the atmosphere; or

16 (2) install and operate a cartridge filter and drain the filter cartridges in their sealed housings for 8 hours
17 or more before their removal.

18 (e) The owner or operator of a petroleum solvent dry cleaning facility subject to this Rule shall inspect the facility
19 every 15 days and shall repair all perceptible leaks within 15 working days after identifying the sources of the leaks. If
20 the necessary repair parts are not on hand, the owner or operator shall order these parts within 15 working days and
21 repair the leaks no later than 15 working days following the arrival of the necessary parts. The owner or operator shall
22 maintain records, in accordance with ~~Rule .0903 of this Section, 15A NCAC 02D .0903~~, of when the inspections were
23 ~~made, performed~~, what equipment was inspected, leaks found, repairs ~~made~~ made, and when the repairs were
24 completed.

25 (f) To determine compliance with Subparagraph (c)(1) of this Rule, the owner or operator shall use the appropriate
26 test method in ~~Section .2600 of this Subchapter~~ 15A NCAC 02D .2613(g) and shall:

27 (1) field calibrate the flame ionization analyzer with propane standards;

28 (2) determine in a laboratory the ratio of the flame ionization analyzer response to a given parts per
29 million by volume concentration of propane to the response to the same parts per million
30 concentration of the volatile organic compounds to be measured;

31 (3) determine the weight of volatile organic compounds vented to the atmosphere by:

32 (A) multiplying the ratio determined in Subparagraph (2) of this Paragraph by the measured
33 concentration of volatile organic compound ~~gas (as propane)~~ gas, as propane, as indicated
34 by the flame ionization analyzer response output record,

35 (B) converting the parts per million by volume value calculated in Part (A) of this
36 Subparagraph into a mass concentration value for the volatile organic compounds present,
37 and

1 (C) multiplying the mass concentration value calculated in Part (B) of this Subparagraph by
2 the exhaust flow rate, and

3 (4) ~~Calculate~~ calculate and record the dry weight of articles dry cleaned. The test shall be repeated for
4 normal operating conditions that encompass at least 30 dryer loads that total not less than 4,000
5 pounds dry weight and that represent a normal range of variation in fabrics, solvents, load weights,
6 temperatures, flow rates, and process deviations.

7 (g) To determine compliance with Subparagraph (c)(2) of this Rule, the owner or operator shall verify that the flow
8 rate of recovered solvent from the solvent recovery dryer at the termination of the recovery phase is no greater than
9 50 milliliters per minute. This one-time procedure shall be conducted for a duration of not less than two weeks during
10 which not less than 50 percent of the dryer loads shall be monitored for their final recovered solvent flow rate. Near
11 the end of the recovery cycle, the flow of recovered solvent shall be diverted to a graduated cylinder. The cycle shall
12 continue until the minimum flow of solvent is 50 milliliters per minute. The type of articles cleaned and the total
13 length of the cycle shall be recorded.

14
15 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
16 *Eff. May 1, 1985;*
17 *Amended Eff. June 1, ~~2008-2008~~;*
18 *Readopted Eff. _____.*
19
20

1 15A NCAC 02D .0947 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0947 MANUFACTURE OF SYNTHESIZED PHARMACEUTICAL PRODUCTS**

4 (a) For the ~~purposes~~ purpose of this Rule, the following definitions shall apply:

5 (1) "Production equipment exhaust system" means a device for collecting and directing out of the work
6 area fugitive emissions of volatile organic compounds from reactor openings, centrifuge openings,
7 and other vessel openings for the purpose of protecting workers from excessive exposure to volatile
8 organic compounds.

9 (2) "Synthesized pharmaceutical manufacturing" means manufacture of pharmaceutical products by
10 chemical synthesis.

11 (b) This Rule applies to synthesized pharmaceutical products manufacturing facilities.

12 (c) The owner or operator of a synthesized pharmaceutical products manufacturing facility shall control the emissions
13 of volatile organic compounds from:

14 (1) reactors, distillation operations, crystallizers, centrifuges, and vacuum dryers that have the potential
15 to emit 15 pounds per day or more of volatile organic compounds with surface condensers that meet
16 the requirements of Paragraph (e) of this Rule or equivalent controls;

17 (2) air dryers and production equipment exhaust system by reducing emissions of volatile organic
18 compounds:

19 (A) by 90 percent if they are 330 pounds per day or more; or

20 (B) to 33 pounds per day if they are less than 330 pounds per day;

21 (3) storage tanks by:

22 (A) providing a vapor balance system or equivalent control that is at least 90 percent effective
23 in reducing emissions from truck or railcar deliveries to storage tanks with capacities
24 greater than 2,000 gallons ~~that store~~ storing volatile organic compounds with a vapor
25 pressure greater than 4.1 pounds per square inch at 68° F; and

26 (B) installing pressure/vacuum conservation vents, which shall be set at plus or minus 0.8
27 inches of water unless a more effective control system is used, on all storage tanks that
28 store volatile organic compounds with a vapor pressure greater than 1.5 pounds per square
29 inch at 68°F;

30 (4) centrifuges containing volatile organic compounds, rotary vacuum filters processing liquid
31 containing volatile organic compounds, and other filters having an exposed liquid surface where the
32 liquid contains volatile organic compounds by enclosing those centrifuges and filters that contain or
33 process volatile organic compounds with a vapor pressure of 0.5 pounds per square inch or more at
34 68°F; and

35 (5) in-process tanks by installing covers, which shall remain closed except when production, sampling,
36 maintenance, or inspection procedures require operator access.

1 (d) The owner or operator of a synthesized pharmaceutical products manufacturing facility shall repair as
2 expeditiously as possible all leaks from which liquid volatile organic compounds can be seen running or dripping.
3 This repair must take place at least within 15 days after which said leak is discovered unless the leaking component
4 cannot be repaired before the process is shutdown in which case the leaking component must be repaired before the
5 process is restarted.

6 (e) If surface condensers are used to comply with Subparagraph (c)(1) of this Rule, the condenser outlet temperature
7 shall not exceed:

8 (1) -13°F when condensing volatile organic compounds of vapor pressure greater than 5.8 ~~psi-pounds~~
9 per square inch at 68°F;

10 (2) 5°F when condensing volatile organic compounds of vapor pressure greater than 2.9 ~~psi-pounds per~~
11 square inch at 68°F;

12 (3) 32°F when condensing volatile organic compounds of vapor pressure greater than 1.5 ~~psi-pounds~~
13 per square inch at 68°F;

14 (4) 50°F when condensing volatile organic compounds of vapor pressure greater than 1.0 ~~psi-pounds~~
15 per square inch at 68°F; or

16 (5) 77°F when condensing volatile organic compounds of vapor pressure greater than 0.5 ~~psi-pounds~~
17 per square inch at 68°F.

18
19 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

20 *Eff. July 1, 1994.*

21 *Readopted Eff. _____.*

22
23

1 15A NCAC 02D .0948 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0948 VOC EMISSIONS FROM TRANSFER OPERATIONS**

4 (a) This Rule applies to operations ~~that transfer~~ transferring volatile organic compounds from a storage tank to
5 ~~tank trucks, trailers, cargo tanks~~ or railroad tank cars ~~that are not covered by Rule .0926, .0927, or .0928 of this~~
6 ~~Section.~~ not specified by 15A NCAC 02D .0926, .0927, or .0928.

7 (b) The owner or operator of a facility to which this Rule applies shall not load in any one day more than 20,000
8 gallons of volatile organic compounds with a vapor pressure of 1.5 pounds per square inch or greater under actual
9 conditions into any ~~tank truck, trailer, cargo tank~~ or railroad tank car from any loading operation unless the loading
10 uses submerged loading through boom loaders ~~that extend~~ extending down into the compartment being loaded or by
11 other methods ~~that are~~ at least as efficient based on source testing or engineering calculations.

12

13 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

14 *Eff. July 1, 1994;*

15 *Amended Eff. July 1, ~~2000-2000~~;*

16 *Readopted Eff. _____.*

17

18

1 15A NCAC 02D .0949 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .0949 STORAGE OF MISCELLANEOUS VOLATILE ORGANIC COMPOUNDS**

4 (a) This Rule applies to the storage of volatile organic compounds in stationary tanks, reservoirs, or other containers
5 with a capacity greater than 50,000 gallons ~~that are not covered by Rule .0925 or .0933~~ not regulated by 15A NCAC
6 02D .0925 or .0933.

7 (b) The owner or operator of any source ~~to which this Rule applies~~ shall not place, store, or hold in any stationary
8 tank, reservoir, or other container with a capacity greater than 50,000 gallons, any liquid volatile organic compound
9 ~~that has with~~ a vapor pressure of 1.5 pounds per square inch absolute or greater under actual storage conditions unless
10 such tank, reservoir, or other container:

11 (1) is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor
12 gas loss into the atmosphere; or

13 (2) is designed and equipped with one of the following vapor loss control devices:

14 (A) a floating pontoon, double deck type floating roof or internal pan type floating roof
15 equipped with closure seals to enclose any space between the cover's edge and
16 compartment wall; this control equipment shall not be permitted for volatile organic
17 compounds with a vapor pressure of 11.0 pounds per square inch absolute or greater under
18 actual storage conditions; all tank gauging or sampling devices shall be gas-tight except
19 when tank gauging or sampling is taking place; or

20 (B) a vapor recovery system or other equipment or means of air pollution control that reduces
21 the emission of organic materials into the atmosphere by at least 90 percent by weight; all
22 tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling
23 is taking place.

24

25 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

26 *Eff. July 1, 1994;*

27 *Amended Eff. July 1, ~~2000-2000~~;*

28 *Readopted Eff. _____.*

29

30

1 15A NCAC 02D .0951 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0951 RACT FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS**

4 (a) Facilities required to install reasonably available control technology (~~RACT~~) pursuant to ~~Rule .0902 of this Section~~
5 15A NCAC 02D .0902(f) shall determine the emissions control level according to this Rule. If the only other
6 applicable emissions control rule in this Section for the facility ~~in this Section~~ is ~~Rule .0958~~, 15A NCAC 02D .0958,
7 then both this Rule and ~~Rule .0958~~ 15A NCAC 02D .0958 apply.

8 (b) This Rule does not apply to architectural or maintenance ~~coating~~ coatings.

9 (c) The owner or operator of any facility to which this Rule applies shall comply by either of the following:

10 (1) install and operate reasonably available control technology as set forth by category specific emission
11 standards defined in this Section; or

12 (2) install and operate alternative reasonably available control technology based on the Division's
13 technical analysis of the information provided in Paragraph (d) of this Rule. All reasonably available
14 control technology demonstrations, and any modifications or changes to those determinations,
15 approved or determined by the Division pursuant to this Subparagraph and Paragraph (d) of this
16 Rule shall be submitted by the Division to the U.S. EPA as a revision to the state implementation
17 plan. No reasonably available control technology demonstration, nor any modification or change to
18 a demonstration, approved or determined by the Division pursuant to this subsection shall revise the
19 state implementation plan or be used as a state implementation plan credit, until it is approved by
20 the U.S. EPA as a state implementation plan revision.

21 (d) If the owner or operator of a facility chooses to install reasonably available control technology under Subparagraph
22 (c)(2) of this Rule, the owner or operator shall submit to the Director:

23 (1) the name and location of the facility;

24 (2) information identifying the source for which a reasonably available control technology limitation or
25 standard is being proposed;

26 (3) a demonstration that shows the proposed reasonably available control technology limitation or
27 standard advances attainment equivalent to or better than application of requirements under
28 Subparagraph (c)(1) of this Rule; and

29 (4) a proposal for demonstrating compliance with the proposed reasonably available control technology
30 limitation or standard.

31
32 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

33 *Eff. July 1, 1994;*

34 *Amended Eff. May 1, 2013; September 1, 2010; July 1, 2000; July 1, ~~1996-1996~~;*

35 *Readopted Eff.*

1 15A NCAC 02D .0952 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0952 PETITION FOR ALTERNATIVE CONTROLS FOR RACT**

4 (a) This Rule applies to all sources ~~covered under~~ regulated by this Section.

5 (b) If the owner or operator of any source of volatile organic compounds subject to the requirements of this Section,
6 can demonstrate that compliance with rules in this Section would be technologically or economically infeasible, he or
7 she may petition the Director to allow the use of alternative operational or equipment controls for the reduction of
8 volatile organic compound emissions. Petition shall be made for each source to the Director.

9 (c) The petition shall ~~contain:~~ include:

- 10 (1) the name and address of the company and the name and telephone number of ~~a company officer~~
11 ~~over whose signature the petition is submitted;~~ the petitioner;
- 12 (2) a description of all operations conducted at the location to which the petition applies and the purpose
13 that the volatile organic compound emitting equipment serves within the operations;
- 14 (3) reference to the specific operational and equipment controls under the rules of this Section for which
15 alternative operational or equipment controls are proposed;
- 16 (4) a description of the proposed alternative operational or equipment controls, the magnitude of volatile
17 organic compound emission reduction that will be achieved, and the quantity and composition of
18 volatile organic compounds that will be emitted if the alternative operational or equipment controls
19 are instituted;
- 20 (5) a plan, which will be instituted in addition to the proposed alternative operational or equipment
21 controls, to reduce, where technologically and economically feasible, volatile organic compound
22 emissions from other source operations at the facility, further than that required ~~under~~ by the Rules
23 of this Section, if these sources exist at the facility, such that aggregate volatile organic compound
24 emissions from the facility will in no case be greater through application of the alternative control
25 than would be allowed through conformance with the rules of this Section;
- 26 (6) a schedule for the installation or institution of the alternative operational or equipment controls in
27 conformance with ~~Rule .0909 of this Section,~~ 15A NCAC 02D .0909, as applicable; and
- 28 (7) certification that emissions of all other air contaminants from the subject source are in compliance
29 with all applicable local, state and federal laws and regulations.

30 The petition may include a copy of the permit ~~application and need not duplicate information in the permit application.~~

31 (d) The Director shall approve a petition for alternative control if:

- 32 (1) ~~The~~ the petition is submitted in accordance with Paragraph (d) of this Rule;
- 33 (2) ~~The~~ the Director determines that the petitioner cannot comply with the rules in question because of
34 technological or economical infeasibility;
- 35 (3) ~~All~~ all other air contaminant emissions from the facility are in compliance with, or under a schedule
36 for compliance as expeditiously as practicable with, all applicable local, state, and federal
37 regulations; and

1 15A NCAC 02D .0955 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0955 THREAD BONDING MANUFACTURING**

4 (a) For the purpose of this Rule, the following definitions apply:

- 5 (1) "Capture hoods" means any device designed to remove emissions from the solution bath tray areas
6 during the manufacturing process.
- 7 (2) "Curing" means exposing coated threads to high temperatures in an oven until the nylon solution
8 mixture hardens (~~vaporizing the solvents~~) vaporizing the solvents and bonds to the threads.
- 9 (3) "Day tanks" means holding tanks that contain nylon solution mixture ready for use.
- 10 (4) "Drying ovens" means any apparatus through which the coated threads are conveyed while curing.
- 11 (5) "Enclose" means to construct an area within the plant that has a separate ventilation system and is
12 maintained at a slightly negative pressure.
- 13 (6) "Fugitive emissions" means emissions that cannot be collected and routed to a control system.
- 14 (7) "Nylon thread coating process" means a process in which threads are coated with a nylon solution
15 and oven cured.
- 16 (8) "Permanent label" means a label that cannot be easily removed or defaced.
- 17 (9) "Polyester solution mixture" means a mixture of polyester and solvents which is used for thread
18 coating.
- 19 (10) "Storing" means reserving material supply for future use.
- 20 (11) "Thread bonding manufacturing" means coating single or multi-strand threads with plastic (nylon
21 or polyester solution mixture) to impart properties such as additional strength and durability, water
22 resistance, and moth repellency.
- 23 (12) "Transporting" means moving material supply from one place to another.

24 (b) ~~This Rule applies in accordance with Rule .0902 of this Section.~~ In accordance to 15A NCAC 02D .0902, this
25 Rule shall apply to any thread bonding manufacturing facility with total uncontrolled exhaust emissions from nylon
26 thread coating process collection hoods and drying ovens of volatile organic compounds (VOC) equal to or greater
27 than 100 tons per year.

28 (c) Annual VOC emissions from each nylon thread coating process shall be determined by multiplying the hourly
29 amount of VOC consumed by the total scheduled operating hours per year.

30 (d) Emissions from each nylon thread coating process subject to this Rule shall be reduced:

- 31 (1) by at least 95 percent by ~~weight, weight;~~ weight, weight; or
32 (2) by installing a thermal incinerator with a temperature of at least 1600°F and a residence time of at
33 least 0.75 seconds.

34 (e) The owner or operator of any thread bonding manufacturing facility shall:

- 35 (1) enclose the nylon thread coating process area of the plant to prevent fugitive emissions from entering
36 other plant areas;
37 (2) store all VOC containing materials in covered tanks or containers;

1 (3) ensure that equipment used for transporting or storing VOC containing material does not leak and
2 that all lids and seals used by such equipment are kept in the closed position at all times except when
3 in actual use;

4 (4) not cause or allow VOC containing material to be splashed, spilled, or discarded in sewers;

5 (5) hold only enough nylon solution mixture in the day tanks to accommodate daily process times
6 measured in hours; and

7 (6) place permanent and conspicuous labels on all equipment affected by Subparagraphs (3) through
8 (5) of this Paragraph summarizing handling procedures described in Subparagraphs (3) through (5)
9 of this Paragraph for VOC contaminated materials at the nylon thread coating process.

10 (f) The owner or operator of a thread bonding manufacturing facility shall notify the Director within 30 days after the
11 calculated annual emissions of VOC from nylon thread coating processes equal or exceed 100 tons per year. The
12 owner or operator shall submit within six months after such calculation a permit application including a schedule to
13 bring the facility into compliance with this Rule.

14
15 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a);*

16 *Eff. May 1, ~~1995~~ 1995;*

17 *Readopted Eff*

18

1 15A NCAC 02D .0956 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0956 GLASS CHRISTMAS ORNAMENT MANUFACTURING**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "Coating" means the application of a layer of material, either by dipping or spraying, in a relatively
6 unbroken film onto glass Christmas ornaments.
- 7 (2) "Curing ovens" means any apparatus through which the coated glass Christmas ornaments are
8 conveyed while drying.
- 9 (3) "Glass Christmas ornament" means any glass ornament that is coated with decorative exterior and
10 is traditionally hung on Christmas trees.
- 11 (4) "Glass Christmas ornament manufacturing facility" means a facility that coats glass Christmas
12 ornaments through the process of interior coating or exterior coating that uses either mechanical or
13 hand-dipping methods, drying (curing), cutting, and packaging operations.
- 14 (5) "Mechanical coating lines" means equipment that facilitates mechanized dipping or spraying of a
15 coating onto glass Christmas ornaments in which the neck of each ornament is held mechanically
16 during the coating operation.
- 17 (6) "Solvent-borne coating" means a coating that uses organic solvents as an ingredient.

18 (b) This Rule applies ~~in accordance with Rule .0902 of this~~ to any curing ovens servicing the mechanical coating lines
19 in the coating of glass Christmas ornaments at glass Christmas tree ornament manufacturing facilities with potential
20 volatile organic compound (VOC) emissions of 100 tons per year or more.

21 (c) This Rule does not apply to glass Christmas ornament manufacturing facilities that do not use solvent-borne
22 coating materials.

23 (d) Emissions of VOC from each curing oven shall be reduced by at least 90 percent by weight.

24 (e) If the owner or operator of a facility subject to this Rule chooses to use low VOC content, solvent-borne coatings
25 to reduce emissions, the emission reduction from the use of these coatings shall be equivalent to that achieved using
26 add-on controls.

27 (f) The owner or operator of a Christmas tree ornament manufacturing facility shall notify the Director within 30 days
28 after the calculated annual emissions of VOC from the facility equal or exceed 100 tons per year. The owner or
29 operator shall submit within six months after such calculation a permit application including a schedule to bring the
30 facility into compliance with this Rule.

31
32 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a);*

33 *Eff. May 1, ~~1995-1995~~;*

34 *Readopted Eff*

1 15A NCAC 02D .0957 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0957 COMMERCIAL BAKERIES**

4 (a) For the purpose of this Rule, the following definitions shall apply:

5 (1) "Baking Oven" means an oven used at any time for the purpose of baking yeast-leavened products,
6 including bread and rolls.

7 (2) "Commercial Bakery" means an establishment where bread and baked goods are produced.

8 (b) This Rule applies in accordance with ~~Rule .0902 of this Section~~ 15A NCAC 02D .0902 to any baking oven at a
9 commercial bakery with potential volatile organic compound (VOC) emissions of 100 tons per year or more. Daily
10 volatile organic compound emissions shall be determined according to the calculation procedures in Paragraph (d) of
11 this Rule.

12 (c) Emissions of VOC from baking ovens subject to this Rule shall be reduced by at least:

13 (1) 90 percent by ~~weight, weight;~~ or

14 (2) 60 percent by weight, if biofiltration is used.

15 (d) Daily volatile organic compound emissions from each commercial baking oven shall be determined according to
16 the following: $\text{EtOH} = 0.40425 + 0.444585[(Y \times T) + (S \times t)]$, where:

17 (1) EtOH = pounds ethanol per ton of baked bread;

18 (2) Y = baker's percent yeast in sponge to the nearest tenth of a percent;

19 (3) T = total time of fermentation in hours to the nearest tenth of an hour;

20 (4) S = baker's percent of yeast added to dough to the nearest tenth of a percent; and

21 (5) t = proof time ~~+plus~~ floor time in hours to the nearest tenth of an hour.

22 (e) The owner or operator of a commercial bakery shall notify the Director within 30 days after the calculated
23 emissions of VOC from the bakery equal or exceed 100 tons per year. The owner or operator shall submit within six
24 months after such calculation a permit application including a schedule to bring the facility into compliance with this
25 Rule.

26
27 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a);*

28 *Eff. May 1, ~~1995~~ 1985;*

29 *Readopted Eff _____.*

1 15A NCAC 2D .0958 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 2D .0958 WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS**

4 (a) This Rule applies to all facilities that use volatile organic compounds as solvents, carriers, material processing
5 media, or industrial chemical reactants, or in other similar uses, or that mix, blend, or manufacture volatile organic
6 compounds, or emit volatile organic compounds as a product of chemical reactions.

7 (b) This Rule does not apply to:

- 8 (1) architectural or maintenance ~~coating,~~ coatings; or
- 9 (2) sources subject to 40 CFR Part 63, Subpart JJ.

10 (c) The owner or operator of any facility subject to this Rule shall:

- 11 (1) store all material, including waste material, containing volatile organic compounds in containers
12 covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in ~~use,~~ use;
- 13 (2) clean up spills as soon as possible following proper safety ~~procedures,~~ procedures;
- 14 (3) store wipe rags in closed ~~containers,~~ containers;
- 15 (4) not clean sponges, fabric, wood, paper products, and other absorbent ~~materials,~~ materials;
- 16 (5) drain solvents used to clean supply lines and other coating equipment into closable containers and
17 close containers immediately after each ~~use,~~ use;
- 18 (6) clean mixing, blending, and manufacturing vats and containers by adding cleaning solvent, closing
19 the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be
20 poured into a closed container.

21 (d) When cleaning parts, the owner or operator of any facility subject to this Rule shall:

- 22 (1) flush parts in the freeboard ~~area,~~ area;
- 23 (2) take precautions to reduce the pooling of solvent on and in the ~~parts,~~ parts;
- 24 (3) tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping
25 has stopped, whichever is ~~longer,~~ longer;
- 26 (4) not fill cleaning machines above the fill ~~line,~~ line;
- 27 (5) not agitate solvent to the point of causing splashing.

28 (e) The owner or operator of a source on which a control device has been installed ~~to comply with 15A NCAC 2D~~
29 ~~.0518(d)~~ shall continue to maintain and operate the control device unless the Director determines that the removal of
30 the control device shall not cause or contribute to a violation of the ozone ambient air quality standard (15A NCAC
31 2D-02D .0405).

32 (f) The owner or operator of a source that has complied with 15A NCAC 2D .0518 prior to July 1, 2000, by complying
33 with a Rule in this Section, shall continue to comply with that rule unless the Director determines that if the source
34 ceases to comply with that rule, it shall not cause or contribute to a violation of the ozone ambient air quality standard
35 (15A NCAC 02D .0405).

36 ~~(g)(e)~~ All sources at a facility subject to this Rule shall be permitted unless they are exempted from permitting by
37 15A NCAC ~~2Q .0102,~~ 02Q .0102, ~~Activities Exempted From Permit Requirements.~~

1

2 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

3 *Eff. July 1, ~~2000~~, 2000;*

4 *Readopted Eff. _____.*

5

1 15A NCAC 02D .0959 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0959 PETITION FOR SUPERIOR ALTERNATIVE CONTROLS**

4 (a) This Rule applies to all sources ~~covered under~~ regulated by this Section.

5 (b) If the owner or operator of any source of volatile organic compounds subject to the requirements of this Section,
6 can demonstrate that an alternative operational or equipment control is superior to the required control, he or she may
7 petition the Director to allow the use of alternative operational or equipment controls for the reduction of volatile
8 organic compound emissions. ~~The petition shall be made for each source to the Director.~~

9 (c) The petition shall ~~contain~~ include:

- 10 (1) the name and address of the company and the name and telephone number of ~~a company officer~~
11 ~~over whose signature the petition is submitted~~; the petitioner;
- 12 (2) a description of all operations conducted at the location to which the petition applies and the purpose
13 that the volatile organic compound emitting equipment serves within the operations;
- 14 (3) reference to the specific operational and equipment controls under the rules of this Section for which
15 alternative operational or equipment controls are proposed;
- 16 (4) a detailed description of the proposed alternative operational or equipment controls, the magnitude
17 of volatile organic compound emission reduction that will be achieved, and the quantity and
18 composition of volatile organic compounds that will be emitted if the alternative operational or
19 equipment controls are instituted; and
- 20 (5) certification that emissions of all other air contaminants from the subject source are in compliance
21 with all applicable local, state and federal laws and regulations.

22 The petition may include a copy of the permit ~~application and need not duplicate information in the permit application.~~

23 (d) The Director shall approve a petition for alternative control if:

- 24 (1) ~~The~~ the petition is submitted in accordance with Paragraph (c) of this Rule;
- 25 (2) ~~The~~ the Director determines that the proposed alternative operational or equipment control is
26 superior to the required controls;
- 27 (3) ~~All~~ all other air contaminant emissions from the facility are in compliance with, or under a schedule
28 for compliance as expeditiously as practicable with, all applicable local, state, and federal
29 regulations; and
- 30 (4) ~~The~~ the petition contains a schedule for achieving and maintaining reduction of volatile organic
31 compound emissions to the maximum extent feasible and as expeditiously as practicable.

32 (e) When controls different from those specified in the appropriate emission standards in this Section are approved
33 by the Director, the permit shall contain a condition stating such controls.

34
35 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

36 *Eff. April 1, ~~2003~~ 2003;*

37 *Readopted Eff.*

1
2

1 15A NCAC 02D .0960 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 02D .0960 ~~CERTIFICATION OF LEAK TIGHTNESS TESTER~~CARGO TANK LEAK**
4 **TESTER REPORT**

5 (a) Purpose. The purpose of this Rule is to establish procedures for ~~certifying cargo tank testing~~ facilities to perform
6 leak tightness tests on ~~gasoline cargo truck~~ tanks as defined under Rule .0932 of this Section in 15A NCAC 02D .0932.

7 ~~(b) Certification request. To request certification to perform leak tightness testing on truck tanks for the purposes of~~
8 ~~complying with Rule .0932 of this Section, a facility shall submit to the Director the following information:~~

9 (1) ~~the name and address of the facility requesting certification, including the primary contact and~~
10 ~~telephone number; and~~

11 (2) ~~the federal (tank cargo) number.~~

12 ~~(c) Approval. The Director shall certify a facility requesting certification to perform leak tightness testing if he finds~~
13 ~~that:~~

14 (1) ~~All the information required under Paragraph (b) of this Rule has been submitted;~~

15 (2) ~~The Division has observed the facility conducting one or more leak tightness tests and finds that:~~

16 (A) ~~The facility has the equipment necessary to perform Method 27 of 40 CFR Part 60, Subpart~~
17 ~~A; and~~

18 (B) ~~The facility has the skills necessary to perform Method 27 of 40 CFR Part 60, Subpart A~~
19 ~~correctly;~~

20 ~~(d) Expiration. A certification to perform leak tightness testing under this Rule shall expire one year from the date of~~
21 ~~its issuance.~~

22 ~~(e) Renewal. To have a certification renewed, the certified facility shall submit to the Director a request to have the~~
23 ~~certification renewed. Within 30 days after receipt of the request, the Division shall observe the certified facility~~
24 ~~conducting one or more leak tightness tests. If the Director finds that:~~

25 (1) ~~The certified facility has the equipment necessary to perform Method 27 of 40 CFR Part 60, Subpart~~
26 ~~A; and~~

27 (2) ~~The certified facility has the skills necessary to perform Method 27 of 40 CFR Part 60, Subpart A~~
28 ~~correctly,~~

29 ~~he shall renew the certification. If the certified facility submits a request for renewal after the expiration of the last~~
30 ~~certification, the Director shall reject the renewal request, and the facility shall request a new certification under~~
31 ~~Paragraph (b) of this Rule.~~

32 ~~(f) Interim certification. If the Division is unable to observe the performance of leak tightness testing required under~~
33 ~~Paragraphs (c) or (e) of this Rule, the Director shall issue an interim certification for up to 90 days to allow the certified~~
34 ~~facility to perform leak tightness tests. An interim certification shall not be renewed.~~

35 ~~(g) Revocation of Certification. If the Director finds that a certified facility is not performing Method 27 of 40 CFR~~
36 ~~Part 60, Subpart A correctly or that the certified facility is certifying tanks as leak tight that have not passed the leak~~
37 ~~tightness test, the Director shall revoke the facility's certification or interim certification.~~

1 ~~(h) Stickers. The Division shall provide serialized stickers at no cost, or the facility may choose to provide the stickers.~~
2 ~~If the facility provides the stickers, the stickers shall contain the same information that is on the stickers provided by~~
3 ~~the Division and shall have the same dimensions and a sample sticker shall accompany the application for certification.~~

4 ~~Once a facility is certified under this Rule to perform leak tightness tests, stickers are to be:~~

5 (1) ~~affixed to tanks that have passed the test under Rule .0932 of this Section; and~~

6 (2) ~~placed near the Department of Transportation Certification (DOT, 49 CFR 178.340-10b).~~

7 ~~The certified facility performing the test shall maintain a log matching sticker serial numbers and tank identification~~
8 ~~numbers. The certified facility shall send this log to the Director monthly.~~

9 ~~(i)(b) Certification report. The certified facility performing the test shall give a copy of the certification report to the~~
10 ~~truck cargo tank owner and shall retain a copy of the certification report. The certification report shall contain the~~
11 ~~following information:~~

12 (1) ~~name, address, and telephone number of certified cargo tank testing facility performing the leak test;~~

13 (2) ~~name and signature of the individual actually performing the leak test;~~

14 (3) ~~name and address of the owner of the tank;~~

15 (4) ~~serial number of the sticker and identification number of the tank;~~

16 (5) ~~the date that the sticker is issued and the date that the sticker expires, which shall be one year after~~
17 ~~the issuance date; documentation of tests performed including the date and summary or results;~~

18 (6) ~~the pressure drops measured and vacuum drops measured; and continued qualification statement and~~
19 ~~returned to service status; and~~

20 (7) ~~list or description of problems with tank (if none are found, the report shall state that none were~~
21 ~~found); identified corrective repairs to the tank, if none are performed then the report shall state "no~~
22 ~~corrective repairs performed."~~

23 ~~(j)(c) Record retention. The certified cargo tank testing facility performing the test and the owner of the gasoline~~
24 ~~truck cargo tank shall keep the certification leak testing report for at least two years. Certification Leak testing reports~~
25 ~~shall be made available to the Division upon request.~~

26 ~~(k)(d) Verification of leak tightness. The Division may use Method 21 to verify the leak tightness of a tank.~~

27
28 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (13);*

29 *Eff. April 1, 2003;*

30 *Amended Eff. July 1, 2007-2007;*

31 *Readopted Eff. _____.*

1 15A NCAC 02D .0961 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0961 OFFSET LITHOGRAPHIC PRINTING AND LETTERPRESS PRINTING**

4 (a) For the purposes of this Rule, the definitions listed in this Paragraph and ~~Rules .0101 and .0902 of this Subchapter~~
5 15A NCAC 02D .0101 and .0902 shall apply.

- 6 (1) "Composite partial vapor pressure" means the sum of the partial pressure of the compounds defined
7 as volatile organic compounds. Volatile organic compounds composite partial vapor pressure is
8 calculated as follows:

9
$$PP_c = \sum_{i=1}^n \frac{(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \frac{W_c}{MW_c} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

10 Where:

11 W_i = Weight of the "i" volatile organic compound, in grams

12 W_w = Weight of water, in grams

13 W_c = Weight of exempt compound, in grams

14 MW_i = Molecular weight of the "i" volatile organic compound, in g/g-mole

15 MW_w = Molecular weight of water, in g/g-mole

16 MW_c = Molecular weight of exempt compound, in g/g-mole

17 PP_c = Volatile organic compounds composite partial vapor pressure at 20 degrees Celsius (68
18 degrees Fahrenheit), in mm Hg

19 VP_i = Vapor pressure of the "i" volatile organic compound at 20 degrees Celsius (68 degrees
20 Fahrenheit), in mm Hg

- 21 (2) "First installation date" means the actual date when this control device becomes operational. This
22 date does not change if the control device is later redirected to a new press.

- 23 (3) "Fountain solution" means water-based solution that applies to lithographic plate to render the non-
24 image areas unreceptive to the ink.

- 25 (4) "Heatset" means any operation in which heat is required to evaporate ink oils from the printing ink,
26 excluding ultraviolet (UV) curing, electron beam curing and infrared drying.

- 27 (5) "Letterpress printing" means a printing process in which the image area is raised relative to the non-
28 image area and the paste ink is transferred to the substrate directly from the image surface.

- 29 (6) "Non-heatset" means a lithographic printing process where the printing inks are set by absorption
30 or oxidation of the ink oil, not by evaporation of the ink oils in a dryer. For the purposes of this
31 Rule, use of an infrared heater or printing conducted using ultraviolet-cured or electron beam-cured
32 inks is considered non-heatset.

- 33 (7) "Offset lithography" means a printing process that uses sheet-fed or web method of press feeding
34 and transfers ink from the lithographic plate to a rubber-covered intermediate "blanket" cylinder and
35 then from the blanket cylinder to the substrate.

1 (8) "Press" means a printing production assembly composed of one or more units used to produce a
2 printed substrate including any associated coating, spray powder application, heatset web dryer,
3 ultraviolet or electron beam curing units, or infrared heating units.

4 (9) "Sheet-fed printing" means offset lithographic printing when individual sheets of paper or other
5 substrate are fed to the press.

6 (10) "Web printing" means offset lithographic printing when continuous rolls of substrate material are
7 fed to the press and rewound or cut to size after printing.

8 (b) This Rule applies to any offset lithographic and any letterpress printing operations sources that are not covered
9 by ~~Subparagraph (c)(1) of Rule .0966 of this Section~~ 15A NCAC 02D .0966(c)(1) and whose emissions of volatile
10 organic compounds exceed:

11 (1) the threshold established in ~~Paragraphs (b) and (f) of Rule .0902 of this Section;~~ 15A NCAC 02D
12 .0902(b) and (f); or

13 (2) an equivalent level of three tons per 12-consecutive month rolling period.

14 (c) Volatile organic compounds content in the fountain solution for on-press (as-applied) heatset web offset
15 lithographic printing shall meet one of the following requirements or equivalent level of control as determined in
16 permit conditions:

17 (1) contain 1.6 percent alcohol or less, by weight, as applied, in the fountain solution:

18 (2) contain three percent alcohol or less, by weight, on-press (as-applied) in the fountain solution if the
19 fountain solution is refrigerated to below 60 degrees Fahrenheit; or

20 (3) contain five percent alcohol substitute or less, by weight, on-press (as-applied) and no alcohol in the
21 fountain solution.

22 (d) Volatile organic compounds content in the fountain solution for on-press (as-applied) sheet-fed lithographic
23 printing shall meet one of the following requirements or equivalent level of control as determined in permit conditions:

24 (1) contain five percent alcohol or less, by weight, on-press (as-applied) in the fountain solution;

25 (2) contain 8.5 percent alcohol or less, by weight, on-press (as-applied) in the fountain solution if the
26 fountain solution is refrigerated to below 60 degrees Fahrenheit; or

27 (3) contain five percent alcohol substitute or less, by weight, on-press (as-applied) and no alcohol in the
28 fountain solution.

29 (e) Volatile organic compounds content in emissions from fountain solution from non-heatset web offset lithographic
30 printing shall not exceed five percent alcohol substitute (by weight) on-press (as-applied) and contain no alcohol in
31 the fountain solution.

32 (f) An owner or operator of an individual web offset lithographic printing press dryer or letterpress-printing heatset
33 press subject to this Rule that emits 25 or more tons per year potential emissions of volatile organic compounds shall:

34 (1) use an enforceable limitation on potential emissions to keep individual heatset press below 25 tons
35 per year potential to emit volatile organic compounds (petroleum ink oil) threshold, which can be
36 achieved by using inks and coatings that contain less than 31.25 tons per year volatile organic

1 compound (petroleum ink oil) where 20 percent retention factor of petroleum ink oil applies, or by
2 using other methods established by permit conditions; or

3 (2) use an add-on control system that meets one of the following requirements:

4 (A) reduces volatile organic compounds emissions from each dryer by at least 90 percent
5 volatile organic compounds emissions control efficiency established by procedures defined
6 in Paragraph (h) of this Rule for a control device from heatset dryers at whose first
7 installation date was prior to July 1, 2010, at facilities with potential to emit 100 tons or
8 more of volatile organic compounds per year and May 1, 2013, at facilities with potential
9 to emit less than 100 tons of volatile organic compounds per year; or

10 (B) reduce volatile organic compounds emissions from each dryer by at least 95 percent
11 volatile organic compounds emissions control efficiency established by procedures defined
12 in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation
13 date was on or after July 1, 2010, at facilities with potential to emit 100 tons or more of
14 volatile organic compounds per year and May 1, 2013, at facilities with potential to emit
15 less than 100 tons of volatile organic compounds per year; or

16 (C) maintain a maximum volatile organic compounds outlet concentration of 20 parts per
17 million by volume (ppmv), as hexane (C₆H₁₄) on a dry basis.

18 (g) The control limits established in:

19 (1) Paragraphs (c), (d), ~~and (e)~~, and (e) of this Rule shall not be applied to any press with total fountain
20 solution reservoir of less than one gallon; and

21 (2) Paragraph (d) of this Rule shall not be applied to sheet-fed presses with maximum sheet size 11x 17
22 inches or smaller; and

23 (3) ~~Paragraph~~Subparagraph (f)(2) of this Rule shall not be applied to a heatset press used for book
24 printing, or to a heatset press with maximum web width of 22 inches or less.

25 (h) If the owner or operator of a printing press is required by permit conditions to determine:

26 (1) the volatile organic compounds content, the EPA test Method 24 or approved alternative methods
27 shall be used;

28 (2) the control efficiency by measuring volatile organic compounds at the control device inlet and outlet,
29 the EPA test Methods 18, 25, 25A, or approved alternative methods shall be used.

30 (i) All test methods defined in Paragraph (h) of this Rule shall be conducted at typical operating conditions and flow
31 rates.

32 (j) The owner or operator of any facility subject to this Rule shall demonstrate compliance with RACT applicability
33 requirements by calculating volatile organic compounds emissions and keep records of the basis of the calculations
34 required by ~~the Rules .0605 and .0903 of this Subchapter.~~ 15A NCAC 02D .0605 and .0903. Volatile organic
35 compounds emissions from offset lithographic printing and letterpress printing shall be determined by permit
36 condition requirements or by using the following retention and capture efficiency factors:

37 (1) the retention factors are:

- 1 (A) 20 percent for heatset petroleum ink oils;
- 2 (B) 100 percent for heatset vegetable ink oils;
- 3 (C) 95 percent for sheet-fed and coldset web petroleum ink oils;
- 4 (D) 100 percent for sheet-fed and coldset web vegetable ink oils.
- 5 (2) the retention factor is 50 percent for low volatile organic compounds composite vapor pressure
- 6 cleaning materials in shop towels where:
- 7 (A) volatile organic compounds composite vapor pressure of the cleaning material is less than
- 8 10 mm Hg at 20°C; and
- 9 (B) cleaning materials and used shop towels are kept in closed containers.
- 10 (3) carryover (capture) factors of volatile organic compounds from automatic blanket wash and fountain
- 11 solution to offset lithographic heatset dryers are:
- 12 (A) 40 percent VOC carryover (capture) factor for automatic blanket washing when the volatile
- 13 organic compounds composite vapor pressure of the cleaning material is less than 10mm
- 14 Hg at 20°C.
- 15 (B) 70 percent VOC carryover (capture) factor for alcohol substitutes in fountain solution.
- 16 (4) capture efficiency for volatile organic compounds (petroleum ink oils) from oil-based paste inks and
- 17 oil-based paste varnishes (coatings) in heatset web offset lithographic presses and heatset web
- 18 letterpress presses shall be demonstrated by showing that the dryer is operating at negative pressure
- 19 relative to the surrounding pressroom. As long as the dryer is operated at negative pressure, the
- 20 capture efficiency for VOC from the heatset lithographic inks and varnishes (coatings) formulated
- 21 with low volatility ink oils is 100 percent of the VOC (ink oils) volatilized in the dryer. Capture
- 22 efficiency test is not required in this situation.
- 23 (k) Except as specified in this Paragraph, all cleaning materials used for cleaning a press, press parts, or to remove
- 24 dried ink from areas around the press shall meet one of the following requirements:
- 25 (1) the volatile organic compounds content shall be less than 70 percent by weight; or
- 26 (2) composite partial vapor pressure of volatile organic compounds shall be less than 10 mm Hg at 20
- 27 degrees Celsius.
- 28 (3) no more than 110 gallons per year of cleaning materials that do not meet the requirements of
- 29 Subparagraph (1) or (2) of this Paragraph shall be used during any 12 consecutive months.
- 30 (l) The owner or operator of any facility subject to this Rule shall maintain the following records for a minimum of
- 31 five years:
- 32 (1) parametric monitoring for processes and control devices as determined and at the frequency
- 33 specified in the permit or by Paragraph (f) of this Rule; and
- 34 (2) the total amount of each individual or class of fountain solution and ink used monthly for the printing
- 35 operations and the percentage of volatile organic compounds, alcohol, and alcohol substitute as
- 36 applied in it; and

- 1 (3) the total amount of each individual or class of cleaning solutions used monthly with vapor pressure
2 and the percentage of volatile organic compounds as applied in it; and
3 (4) the total amount of cleaning solutions used monthly with vapor pressure and the percentage of
4 volatile organic compounds as applied which does not meet the vapor pressure or percentage of
5 volatile organic compounds requirements of Paragraph (k) of this Rule; and
6 (5) temperature of fountain solutions for lithographic printing presses using alcohol at the frequency
7 specified in the permit; and
8 (6) any other parameters required by the permit in accordance with ~~the Rules .0903 and .0605 of this~~
9 ~~Subchapter.~~ 15A NCAC 02D .0903 and .0605.

10 (m) The owner or operator of any source subject to this Rule shall comply with ~~Rules .0903 and .0958 of this Section.~~
11 15A NCAC 02D .0903 and .0958.

12

13 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

14 *Eff. September 1, 2010;*

15 *Amended Eff. May 1, ~~2013-2013~~;*

16 *Readopted Eff. _____.*

17

18

1 15A NCAC 02D .0962 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0962 INDUSTRIAL CLEANING SOLVENTS**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "Organic solvent" means a liquid hydrocarbon, such as methyl ethyl ketone or toluene, used to
6 dissolve paints, varnishes, grease, oil, or other hydrocarbons.
7 (2) "Solvent cleaning" means the process of removing the excess penetrant from the surface or a part
8 by wiping, flushing, or spraying with a solvent for the penetrant.
9 (3) "Wipe cleaning" means the method of cleaning that utilizes a material such as a rag wetted with a
10 solvent, prior to a physical rubbing process to remove contaminants from surfaces.

11 (b) This Rule applies, with exemptions defined in Paragraphs (c) and (d) of this Rule, to sources whose volatile
12 organic compound emissions exceed the threshold established in ~~Paragraph (b) of Rule .0902 of this Section~~15A
13 NCAC 02D .0902(b) from the following cleaning operations:

- 14 (1) spray gun cleaning;
15 (2) spray booth cleaning;
16 (3) large manufactured components cleaning;
17 (4) parts cleaning;
18 (5) equipment cleaning;
19 (6) line cleaning;
20 (7) floor cleaning;
21 (8) tank cleaning; and
22 (9) small manufactured components cleaning.

23 (c) Paragraph (e) of this Rule does not apply to any cleaning material used for cleaning operations covered by Rules
24 .0918, .0919, .0921, .0923, .0924, .0930, ~~.0934~~, .0935, ~~.0936~~, .0961, .0963, .0964, .0965, .0966, .0967, and .0968 of
25 this Section.

26 (d) Cleaning operations of portable or stationary mixing vats, high dispersion mills, grinding mills, tote tanks and
27 roller mills for manufacturing of coating, ink, or adhesive shall apply one or more of the following methods:

- 28 (1) use industrial cleaning solvents that either contains less than 1.67 pounds VOC per gallon or has an
29 initial boiling point greater than 120 degrees Celsius, and where the initial boiling point exceeds the
30 maximum operating temperature by at least 100 degrees Celsius. The industrial cleaning solvents
31 shall be collected and stored in closed containers;
32 (2) implement the following work practices:
33 (A) maintain the equipment being cleaned as leak free; ~~and~~
34 (B) drain volatile organic compounds containing cleaning materials from the cleaned
35 equipment upon completion of cleaning; ~~and~~
36 (C) store or dispose of volatile organic compounds containing cleaning materials, including
37 waste solvent, in a manner that will prevent evaporation into atmosphere; and

- 1 (D) store all volatile organic containing cleaning materials in closed containers;
2 (3) collect and vent the emissions from equipment cleaning to an add-on control system as set forth in
3 Paragraph (g) of this Rule; or
4 (4) use organic solvents other than listed in ~~Paragraph~~Subparagraph (d)(1) of this Rule if no more than
5 60 gallons of fresh solvent shall be used per month. Organic solvent ~~that is~~ reused or recycled either
6 onsite or offsite for further use in equipment cleaning or the manufacture of coating, ink, or adhesive
7 shall not be included in this limit.
8 (e) Any cleaning material of the nine cleaning operations listed in Paragraph (b) of this Rule shall have:
9 (1) volatile organic compounds content that does not exceed 0.42 pounds per gallon; or
10 (2) composite vapor limit of eight millimeters of mercury (mmHg) at 20 degrees Celsius.
11 (f) EPA Method 24 (40 CFR Part 60, Appendix A-7) shall be used to determine the volatile organic compounds
12 content of coating materials used in industrial cleaning solvents operations unless the facility maintains records to
13 document the volatile organic compounds content of coating materials from the manufacturer.
14 (g) Facilities which have chosen to use add-on control rather than to comply with the emission limits established in
15 Paragraph (e) of this Rule shall install control equipment with 85 percent overall efficiency.
16 (h) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this~~
17 Section.15A NCAC 02D .0903 and .0958.

18
19 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
20 *Eff. September 1, 2010;*
21 *Amended Eff. May 1, ~~2013-2013~~;*
22 *Readopted Eff. _____.*
23
24

1 15A NCAC 02D .0963 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0963 FIBERGLASS BOAT MANUFACTURING MATERIALS**

4 (a) For the purpose of this Rule, the following definitions shall apply:

- 5 (1) "Closed molding" means any fabrication techniques in which pressure is used to distribute the resin
6 through the reinforcing fabric placed between two mold surfaces to either saturate the fabric or fill
7 the mold cavity.
- 8 (2) "Monomer" means a volatile organic compound that partly combines with itself, or other similar
9 compounds, by a cross-linking reaction to become a part of the cured resin.
- 10 (3) "Open molding" means the open mold which is first spray-coated with a clear or pigmented
11 polyester resin known as a gel coat. The gel coat will become the outer surface of the finished part.

12 (b) This Rule applies to a facility that manufactures hulls or decks of boats and related parts, builds molds to make
13 fiberglass boat hulls or decks and related parts from fiberglass, or makes polyester resin putties for assembling
14 fiberglass parts; and whose volatile organic compounds emissions exceed the threshold established in ~~Paragraph (b)~~
15 ~~of Rule .0902 of this Section~~ 15A NCAC 02D .0902(b) from sources for the following operations:

- 16 (1) open molding and gel coat ~~operations (including operation, including pigmented gel coat, clear gel~~
17 ~~coat, production resin, tooling gel coat, and tooling resin); resin;~~
- 18 (2) resins and gel coat mixing operations; and
- 19 (3) resins and gel coat application equipment cleaning operations.

20 (c) The following activities are exempted from the provisions of this Rule:

- 21 (1) surface coatings applied to fiberglass boats;
- 22 (2) surface coatings for fiberglass and metal recreational ~~boats (pleasure craft); boats;~~ boats; and
- 23 (3) industrial adhesives used in the assembly of fiberglass boats.

24 (d) Volatile organic compounds content limits in resin and gel coat that are used for any molding operations listed in
25 Paragraph (b) of this Rule and closed molding operations that do not meet the definition of monomer established in
26 Subparagraph (a)(2) of this Rule, such as vacuum bagging operations, shall not exceed monomer volatile organic
27 compounds limits established in Table 1:

28
29 ~~Table 1~~ Table 1. Organic Hazardous Air Pollutants Content Requirements for Open Molding Resin and Gel Coat Operations
30 ~~(40 CFR 63, Subpart VVVV.) VVVV)~~

Material	Application Method	Limit of Weighted-Average Monomer VOC Content (weight percent)
Production resin	Atomized (spray)	28 <u>28</u>
Production resin	Nonatomized	35 <u>35</u>
Pigmented gel coat	Any method	33 <u>33</u>
Clear gel coat	Any method	48 <u>48</u>
Tooling resin	Atomized	30 <u>30</u>

Tooling resin	Nonatomized	39 39
Tooling gel coat	Any method	40 40

The average monomer volatile organic compounds contents listed in the Table 1 shall be determined by using Equation 1 below:

$$\text{Weighted Average Monomer VOC Content} = \frac{\sum_{i=1}^n (M_i * VOC_i)}{\sum_{i=1}^n (M_i)}$$

~~Weighted Average Monomer VOC Content =~~ _____

Where: M_i = mass of open molding resin or gel coat i used in the past 12 month in an ~~operation, megagrams.~~ operation in megagrams;

VOC_i = monomer volatile organic compounds content, by weight percent, of open molding resin or gel coat i used in the past 12 month in an ~~operation.~~ operation;

n = number of different open molding resins or gel coats used in the past 12 months in an operation.

(e) Molding monomer and non-monomer volatile organic compounds limits established in Paragraph (d) of this Rule are not applicable to:

- (1) ~~production resins (including resins, including skin coat resins)~~ resins, that meet specifications for use in military vessels or are approved by the U.S. Coast Guard for the use in the construction of lifeboats, rescue boats, and other life saving appliances approved under 46 CFR Subchapter Q, or the construction of small passenger vessels regulated by 46 CFR Subchapter T. Production resins that meet these criteria shall be applied with ~~nonatomizing~~ non-atomizing resin application equipment;
- (2) production and tooling resins; and pigmented, clear, and tooling gel coat used for part or mold repair and touch up. Total resin and gel coat materials that meet these criteria shall not exceed one percent by weight of all resin and gel coat used at a facility on a 12-month rolling-average basis; or
- (3) pure, 100-percent ~~vinylester~~ vinyl ester resin used for skin coats that are applied with ~~nonatomizing~~ non-atomizing resin application equipment and with the total amount of the resin materials not exceeding five percent by weight of all resin used at a factory on 12-month rolling-average basis.

(f) Any molding resin and gel coat operations listed in Paragraph (b) of this Rule, that a facility chooses to include into average emissions among different operations to meet numerical monomer volatile organic compounds emission rate limits rather than to comply with the emission limits established in Paragraph (d) of this Rule shall ~~use;~~ use the following equations:

1 (1) ~~Equation 2~~ to estimate a facility-specific monomer volatile organic compounds mass emission limit
2 (12-month rolling ~~average~~), average use Equation 2 below: ~~Estimations of emissions average shall~~
3 ~~be determined on 12-month rolling average basis at the end of every month (12 times per year).~~

4 ~~Equation 2:~~

$$5 \text{ Monomer VOC Limit} = 46(M_R) + 159(M_{PG}) + 291(M_{CG}) + 54(M_{TR}) + 214(M_{TG})$$

6 Where:

7 Monomer VOC Limit = total allowable monomer volatile organic compounds that can be emitted
8 from the open molding operations ~~included in the average~~, in kilograms per 12-month period.

9 M_R = mass of production resin in megagrams used in the past 12 ~~month~~ months, excluding any
10 materials that are ~~exempt, megagrams.~~ exempt;

11 M_{PG} = mass of pigmented gel coat in megagrams used in the past 12 ~~month~~ months, excluding any
12 materials that are ~~exempt, megagrams.~~ exempt;

13 M_{CG} = mass of clear gel coat in megagrams used in the past 12 ~~month~~ months, excluding any
14 materials that are ~~exempt, megagrams.~~ exempt;

15 M_{TR} = mass of tooling resin coat in megagrams used in the past 12 ~~month~~ months, excluding any
16 materials that are ~~exempt, megagrams.~~ exempt;

17 M_{TG} = mass of tooling gel coat in megagrams used in the past 12 ~~month~~ months, excluding any
18 materials that are ~~exempt, megagrams.~~ exempt.

19 Estimates of average emissions shall be determined on a 12-month rolling average basis at the end
20 of every month. The numerical coefficients associated with each term on the right hand side of
21 Equation 2 are the allowable monomer volatile organic compounds emission rate for that particular
22 material in units of kilograms of VOC per megagrams of material used.

23 (2) ~~Equation 3~~ to demonstrate that the monomer volatile organic compounds emissions from the
24 operations included in the average do not exceed the emission limit calculated using Equation 2
25 from Subparagraph (f)(1) of this Rule for the same 12-month ~~period.~~ period use Equation 3 below:
26 ~~This demonstration shall be conducted at the end of the first 12-month averaging period and at the~~
27 ~~end of every subsequent month for only those operations and materials that included in the average.~~

28 ~~Equation 3:~~

$$29 \text{ Monomer VOC emissions} = (PV_R)(M_R) + (PV_{PG})(M_{PG}) + (PV_{CG})(M_{CG}) + (PV_{TR})(M_{TR}) +$$
$$30 (PV_{TG})(M_{TG})$$

31 Where:

32 Monomer VOC emissions = monomer volatile organic compounds emissions calculated using the
33 monomer volatile organic compounds emission equation for each operation included in the ~~average,~~
34 ~~kilograms.~~ average in kilograms;

35 PV_R = weighted-average monomer volatile organic compounds emission rate in kilograms per
36 megagram for production resin used in the past 12 ~~month~~, kilograms per megagram. months;

37 M_R = Mass of production resin in megagrams used in the past 12 ~~month~~, megagrams. months;

1 PV_{PG} = weighted-average monomer volatile organic compounds emission rate in kilograms per
2 megagram for pigmented gel coat used in the past 12-month, ~~kilograms per megagram, months;~~

3 M_{PG} = mass of pigmented gel coat in megagrams used in the past 12-month, ~~megagrams, months;~~

4 PV_{CG} = weighted-average monomer volatile organic compounds emission rate in kilograms per
5 megagram for clear gel coat used in the past 12-month, ~~kilograms per megagram, months;~~

6 M_{CG} = Mass of clear gel coat in megagrams used in the past 12-month, ~~megagrams, months;~~

7 PV_{TR} = Weighted-average monomer volatile organic compounds emission rate in kilograms per
8 megagram for tooling resin used in the past 12-month, ~~kilograms per megagram, months;~~

9 M_{TR} = Mass of tooling resin in megagrams used in the past 12-month, ~~megagrams, months;~~

10 PV_{TG} = Weighted-average monomer volatile organic compounds emission rate in kilograms per
11 megagram for tooling gel coat used in the past 12-month, ~~kilograms per megagram, months;~~

12 M_{TG} = Mass of tooling gel coat in megagrams used in the past 12-month, ~~megagrams, months.~~

13 This demonstration shall be conducted at the end of the first 12-month averaging period and at the
14 end of every subsequent month for only those operations that are included in the average.

- 15 (3) ~~Equation 4~~ to compute the weighted-average monomer volatile organic compounds emission rate
16 for the previous 12-month ~~months~~ for each open molding resin and gel coat operation use Equation
17 4 below: included in the average to apply the results in Equation 3.

18 Equation 4:

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

19

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

20

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

21

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

22

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

23

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

24

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

25

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

26

$$PV_{OP} = \frac{\sum_{i=1}^n (M_i * PV_i)}{\sum_{i=1}^n M_i}$$

27 Where:

28 PV_{OP} = weighted-average monomer volatile organic compounds emission rate in kilograms of
29 monomer volatile organic compounds per megagram of material applied for each open molding
30 operation (PV_R, PV_{PG}, PV_{CG}, PV_{TR}, and PV_{TG}) included in the ~~average, kilograms of monomer~~
31 ~~volatile organic compounds per megagram of material applied, average;~~

32 M_i = mass of resin or gel coat i in megagrams used within an operation in the past 12-month,
33 ~~megagrams, months;~~

34 n = number of different open molding resins and gel coats used within an operation in the past 12
35 ~~month, months;~~

36 PV_i = the monomer volatile organic compounds emission rate for resin or gel coat i in kilograms of
37 monomer volatile organic compounds per megagram of material applied used within an operation

in the past 12-month, kilograms of monomer volatile organic compounds per megagram of material applied-months. Equations in Table 2 shall be used to compute PV. The calculated averages from Equation 4 shall be used as the weighted-average values in Equation 3.

Table 2. Compliant Materials Monomer Volatile Organic Compounds Content for Open Molding Resin and Gel Coat.

For this material	and this application method	Use this formula to calculate the monomer VOC emission rate
1. Production resin, tooling resin	a. Atomized	$0.014 \times (\text{Resin VOC}\%)^{2.425}$
	b. Atomized, plus vacuum bagging with roll-out	$0.01185 \times (\text{Resin VOC}\%)^{2.425}$
	c. Atomized, plus vacuum bagging without roll-out	$0.00945 \times (\text{Resin VOC}\%)^{2.425}$
	d. Nonatomized	$0.014 \times (\text{Resin VOC}\%)^{2.275}$
	e. Nonatomized, plus vacuum bagging with roll-out	$0.0110 \times (\text{Resin VOC}\%)^{2.275}$
	f. Nonatomized, plus vacuum bagging without roll-out	$0.0076 \times (\text{Resin VOC}\%)^{2.275}$
2. Pigmented gel coat, clear gel coat, tooling gel coat	All methods	$0.445 \times (\text{Gel coat VOC}\%)^{1.675}$

(g) If the owner or operator of any facility with molding resin and gel coat operations listed in Paragraph (b) of this Rule, chooses to use ~~of~~ higher-monomer volatile organic compounds materials rather than to comply with the emission limits established in Paragraph (d) of this ~~Rule~~ Rule, they shall:

- (1) install control equipment to meet the emission limit determined by Equation 2 in Subparagraph (f)(1) of this Rule, by applying the mass of each material used during the control device performance test in Equation 2 to determine the emission ~~limit~~ limit (limit, in kilogram of monomer ~~VOC~~ VOC, that is applicable during the test, instead of using the mass of each material as ~~it~~ established in Subparagraph (f)(1) of this Rule;
- (2) monitor and record relevant control device and capture system operating parameters during the control device performance test to use the recorded values to establish operating limits for those parameters; and
- (3) monitor the operating parameters for the control device and emissions capture system and maintain the parameters within the established limits.

1 (h) Any molding resin and gel coat operations that use a filled production resin or filled tooling resin shall calculate
2 the emission rate for the filled production resin or filled tooling resin on as applied basis using Equation 5. If the filled
3 resin:

- 4 (1) is used as a production resin then the value of PV_F calculated by Equation 5 shall not exceed 46
5 kilograms of monomer VOC per megagram of filled resin applied;
- 6 (2) is used as a tooling resin then the value of PV_F calculated by Equation 5 shall not exceed 54
7 kilograms of monomer VOC per megagram of filled resin applied; and
- 8 (3) is included in the emissions averaging procedure then the facility shall use the value of PV_F
9 calculated by Equation 5 for the value PV_U in Equation 4 in Subparagraph (f)(3) of this Rule.

$$PV_F = \frac{PV_U * (100 - \%Filler)}{100}$$

10
11 ~~Equation 5:~~

$$PV_F = \frac{PV_U * (100 - \%Filler)}{100}$$

12
13
14
15
16
17 Where:

18 PV_F = The as-applied monomer volatile organic compounds emission rate in kilograms monomer
19 VOC per megagram of filled material for the filled production resin or tooling resin, ~~kilograms~~
20 monomer VOC per megagram of filled material, resin;

21 PV_U = The monomer volatile organic compounds emission rate for the neat (unfilled) resin before
22 filler is added, as calculated using the formulas in Table 2 of Subparagraph (f)(3) of this Rule.

23 %Filler = The weight-percent of filler in the as-applied filled resin system.

24 (i) All resins and gel coats included in volatile organic compounds limits described in Paragraphs (d) through (h) of
25 this Rule shall meet the non-monomer volatile organic compounds content limit of five percent.

26 (j) If the non-monomer volatile organic compounds content of a resin or gel coat exceeds five percent, then the excess
27 non-monomer volatile organic compounds over the five percent shall be counted toward the monomer volatile organic
28 compounds content.

29 (k) SCAQMD Method 312-91, Determination of Percent Monomer in Polyester Resins, revised April 1996 shall be
30 used to determine the monomer volatile organic compounds content of resin and gel coat materials unless the facility
31 maintains records to document the volatile organic compounds content of resin and gel coat materials from the
32 manufacturer.

33 (l) All resin and gel coat mixing containers with a capacity equal to or greater than 55 gallons, including those used
34 for on-site mixing of putties and polyputties, shall have a cover with no visible gaps in place at all times except for
35 the following operations:

- 36 (1) when material is being manually added to or removed from a container; or
- 37 (2) when mixing or pumping equipment is being placed or removed from a container.

1 (m) Volatile organic compounds cleaning solvents for routine application equipment cleaning shall contain no more
2 than five percent volatile organic compounds by weight, or have a composite vapor pressure of no more than 0.50 mm
3 Hg at 68 degrees Fahrenheit.

4 (n) Only non-volatile organic compounds solvents shall be used to remove cured resin and gel coat from application
5 equipment.

6 (o) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this~~
7 ~~Section.~~ 15A NCAC 02D .0903 and .0958.

8

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

10 *Eff. September 1, ~~2010~~2010;*

11 *Readopted Eff.*

12

13

1 15A NCAC 02D .0964 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0964 MISCELLANEOUS INDUSTRIAL ADHESIVES**

4 (a) For the purpose of this Rule, the following definitions apply:

- 5 (1) "Air-assisted airless spray" means a system that consists of an airless spray gun with a compressed
6 air jet at the gun tip to atomize the adhesive.
- 7 (2) "Airless spray" means the application of an adhesive through an atomizing nozzle at high pressure
8 ~~(1,000 to 6,000 pounds per square inch)~~ 1,000 to 6,000 pounds per square inch by a pump forces.
- 9 (3) "Application process" means a process that consists of a series of one or more adhesive applicators
10 and any associated drying area or oven where an adhesive is applied, dried and cured.
- 11 (4) "Dip Coating" means application where substrates are dipped into a tank containing the adhesive.
12 The substrates are then withdrawn from the tank and any excess adhesive is allowed to drain.
- 13 (5) "Electrocoating" means a specialized form of dip coating where opposite electric charges are applied
14 to the waterborne adhesive and the substrate.
- 15 (6) "Electrostatic spray" means application where the adhesive and substrate are oppositely charged.
- 16 (7) "Flow coating" means conveying the substrate over an enclosed sink where the adhesive is applied
17 at low pressure as the item passes under a series of nozzles.
- 18 (8) "HVLP" means a system with specialized nozzles that provide better air and fluid flow than
19 conventional air atomized spray systems at low air pressure, shape spray pattern, and guide high
20 volumes of atomized adhesive particles to the substrate using lower air pressure ~~(10 pounds per~~
21 ~~square inch or less at the spray cap)~~ 10 pounds per square inch or less at the spray cap.
- 22 (9) "Miscellaneous industrial adhesives" means adhesives ~~(including adhesive primers used in~~
23 ~~conjunction with certain types of adhesives)~~ including adhesive primers used in conjunction with
24 certain types of adhesives used at industrial manufacturing and repair facilities for a wide variety of
25 products and equipment that operate adhesives application processes.
- 26 (10) "Roll coating", "brush coating", and "hand application" means application of high viscosity
27 adhesives onto small surface area.

28 (b) Control of volatile organic compounds emissions from miscellaneous industrial adhesives product categories
29 covered by ~~Rules~~ 15A NCAC 02D .0921, .0923, .0934, .0935, .0936, .0961, .0962, .0963, .0965, .0966, .0967, and
30 .0968 of this Section are exempted from the requirements of this Rule.

31 (c) This Rule applies to miscellaneous industrial adhesive application sources whose volatile organic compounds
32 emissions exceed the threshold established in ~~Paragraph (b) of Rule .0902 of this Section.~~ 15A NCAC 02D .0902 (b).

33 (d) With the exception established in Paragraph (b) of this Rule, all volatile organic compounds containing materials
34 applied by each miscellaneous industrial adhesive application processes before control shall:

- 35 (1) not exceed limits established in Table 1 of this Paragraph; and
36 (2) be used in one of the following application methods in conjunction with using low volatile organic
37 compounds adhesives or adhesive primers:

- 1 (A) electrostatic spray;
- 2 (B) HVLP spray;
- 3 (C) flow coat;
- 4 (D) roll coat or hand application, including non-spray application methods similar to hand or
- 5 mechanically powered caulking gun, brush, or direct hand application;
- 6 (E) dip coat (~~including electrodesposition~~); including electrodesposition;
- 7 (F) airless spray;
- 8 (G) air-assisted airless spray; or
- 9 (H) other adhesive application method capable of achieving a transfer efficiency equivalent to
- 10 or better than that achieved by HVLP spraying.

11 (e) Emission limits established in Subparagraph (d)(1) of this Rule shall be:

- 12 (1) met by averaging the volatile organic compounds content of materials used on a single application
- 13 unit for each day; and
- 14 (2) calculated as mass of volatile organic compounds per volume of adhesive primer excluding water
- 15 and exempt compounds, as applied.

16 (f) If an adhesive is used to bond dissimilar substrates together in general adhesive application process (Table 1), then

17 the applicable substrate category with the highest volatile organic compounds emission limit shall be established as

18 the limit for such application.

19

20 Table 1. Volatile Organic Compounds Emission Limits for General and Specialty Adhesive Application Process.

General Adhesive Application Processes	VOC Emission Limit (lb/gal)
Reinforced Plastic Composite	1.7
Flexible vinyl	2.1
Metal	0.3
Porous Material (Except Wood)	1
Rubber	2.1
Wood	0.3
Other Substrates	2.1
Specialty Adhesive Application Processes	VOC Emission Limit (lb/gal)
Ceramic Tile Installation	1.1
Contact Adhesive	2.1
Cove Base Installation	1.3
Floor Covering Installation (Indoor)	1.3
Floor Covering Installation (Outdoor)	2.1
Floor Covering Installation (Perimeter Bonded Sheet Vinyl)	5.5

Metal to Urethane/Rubber Molding or Casting	7.1
Motor Vehicle Adhesive	2.1
Motor Vehicle Weatherstrip Adhesive	6.3
Multipurpose Construction	1.7
Plastic Solvent Welding (ABS)	3.3
Plastic Solvent Welding (Except ABS)	4.2
Sheet Rubber Lining Installation	7.1
Single-Ply Roof Membrane Installation/Repair (Except EPDM)	2.1
Structural Glazing	0.8
Thin Metal Laminating	6.5
Tire Repair	0.8
Waterproof Resorcinol Glue	1.4
Adhesive Primer Application Processes	VOC Emission Limit ¹ (lb/gal)
Motor Vehicle Glass Bonding Primer	7.5
Plastic Solvent Welding Adhesive Primer	5.4
Single-Ply Roof Membrane Adhesive Primer	2.1
Other Adhesive Primer	2.1

1
2 (g) Any miscellaneous industrial adhesive application processes subject to this Rule, which chooses to use add-on
3 control for adhesive application processes rather than to comply with the emission limits established in Paragraph (d)
4 of this Rule, shall install control equipment with overall control efficiency of 85 percent or use a combination of
5 adhesives and add-on control equipment on an application process to meet limits established in Paragraph (d) of this
6 Rule.

7 (h) EPA Method 24 or 25A (40 CFR Part 60, Appendix A-7) shall be used to determine the volatile organic
8 compounds content of adhesives, other than reactive adhesives, and the procedure established in Appendix A of the
9 NESHAP for surface coating of plastic parts (40 CFR Part 63, Subpart PPPP) shall be used to determine the volatile
10 organic compounds content of reactive adhesives unless the facility maintains records to document the volatile organic
11 compounds content of adhesives from the manufacturer.

12 (i) The owner or operator of any facility subject to this Rule shall comply with the ~~Rules .0903 and .0958 of this~~
13 ~~Section.~~ 15A NCAC 02D .0903 and .0958.

14
15 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
16 *Eff. September 1, ~~2010-2010~~;*
17 *Readopted Eff*

1 15A NCAC 02D .0965 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0965 FLEXIBLE PACKAGE PRINTING**

4 (a) For the purpose of this Rule, the following definitions apply:

- 5 (1) "First installation date" means the actual date when the equipment or control device becomes
6 operational. This date does not change if the equipment or control device is later moved to a new
7 location.
- 8 (2) "Flexible Packaging" means any package or part of a package the shape of which can be readily
9 changed.
- 10 (3) "Flexographic printing" means a printing process in which an image is raised above the printing
11 plate, and the image carrier is made of rubber or other elastomeric materials.
- 12 (4) "Rotogravure press" means an unwind or feed section, which may include:
- 13 (A) more than one unwind or feed station (~~such as on a laminator~~); such as on a laminator;
- 14 (B) series of individual work stations, one or more of which is a rotogravure print station;
- 15 (C) any dryers associated with the work stations; and
- 16 (D) a rewind, stack, or collection section.
- 17 (5) "Rotogravure printing" means a printing process in which an image (~~type and art~~) type and art is
18 etched or engraved below the surface of a plate or cylinder.

19 (b) This Rule applies to flexible packaging printing press sources whose emissions of volatile organic compounds
20 exceed the threshold established in ~~Paragraph (b) of Rule .0902 of this Section.~~ 15A NCAC 02D .0902(b).

21 (c) Volatile organic compounds content of materials used on any single flexible packaging printing press subject to
22 this Rule shall not exceed 0.8 pounds volatile organic compounds per one pound of solids applied, or 0.16 pounds
23 volatile organic compounds per one pound of materials applied limits. These volatile organic compounds content
24 limits are consistent with 80 percent overall emissions reduction level and reflect similar control levels as the capture
25 and control option.

26 (d) Any flexible packaging printing press which has chosen to use add-on control for coating operations rather than
27 to comply with the emission limits established in Paragraph (c) of this Rule shall install control equipment with:

- 28 (1) 65 percent overall control based on a capture efficiency of 75 percent and a control device efficiency
29 of 90 percent for a press that was first installed prior to March 14, 1995 and that is controlled by an
30 add-on control device whose first installation date prior to July 1, 2010;
- 31 (2) 70 percent overall control based on a capture efficiency of 75 percent and a control device efficiency
32 of 95 percent for a press that was first installed prior to March 14, 1995 and that is controlled by an
33 add-on control device whose first installation date was on or after July 1, 2010;
- 34 (3) 75 percent overall control based on a capture efficiency of 85 percent and a control device efficiency
35 of 95 percent for a press that was first installed on or after March 14, 1995 and that is controlled by
36 an add-on control device whose first installation date was prior July 1, 2010; and

1 (4) 80 percent overall control based on a capture efficiency of 85 percent and a control device efficiency
2 of 95 percent for a press that was first installed on or after March 14, 1995 and that is controlled by
3 an add-on control device whose first installation date was on or after July 1, 2010.

4 (e) EPA Method 24 or 25A (~~40CFR Part 60, Appendix A-7~~) 40CFR Part 60, Appendix A-7 shall be used to determine
5 the volatile organic compounds content of coating materials used at flexible package printing facilities unless the
6 facility maintains records to document the volatile organic compounds content of coating materials from the
7 manufacturer.

8 (f) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this~~
9 ~~Section.~~ 15A NCAC 02D .0903 and .0958.

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

12 *Eff. September 1, ~~2010~~ 2010;*

13 *Readopted Eff*

14
15
16

1 15A NCAC 02D .0966 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0966 PAPER, FILM AND FOIL COATINGS**

4 (a) For the purpose of this Rule, the following definitions apply:

- 5 (1) "Paper, film, and foil coating line" means a series of coating applicators, flash-off areas, and any
6 associated curing/drying equipment between one or more unwind/feed stations and one or more
7 rewind/cutting stations.
- 8 (2) "Flexographic coating" means that the area to be coated is delineated by a raised surface on a flexible
9 plate.
- 10 (3) "Rotary screen or flat screen coating" means the application of a coating material to a substrate by
11 means of masking the surface and applying a color or finish using a screen either in flat form or
12 rotary form.
- 13 (4) "Rotogravure coating" means the application of a coating material to a substrate by means of a roll
14 coating technique in which the pattern to be applied is etched on the coating roll. The coating
15 material is picked up in these recessed areas and is transferred to the substrate.

16 (b) With the exception in Paragraph (c) of this Rule, this Rule applies to paper, film and foil surface coating operations
17 sources, including related cleaning activity, whose emissions of volatile organic compounds exceed the threshold
18 established in ~~Paragraph (b) of Rule .0902 of this Section,~~ 15A NCAC 02D .0902(b), at a facility that applies:

- 19 (1) paper, film, or foil surfaces in the manufacturing of products for pressure sensitive tape and labels
20 (including fabric coated for use in pressure sensitive tapes and labels; photographic film; industrial
21 and decorative laminates; abrasive products (including fabric coated for use in abrasive products);
22 and flexible packaging (including coating of non-woven polymer substrates for use in flexible
23 packaging); and
- 24 (2) coatings during coating applications for production of corrugated and solid fiber boxes; die-cut
25 paper paperboard, and cardboard; converted paper and paperboard not elsewhere classified; folding
26 paperboard boxes, including sanitary boxes; manifold business forms and related products; plastic
27 aseptic packaging; and carbon paper and inked ribbons.

28 (c) The following types of coatings are not covered by this Rule:

- 29 (1) coatings performed on or in-line with any offset lithographic, screen, letterpress, flexographic,
30 rotogravure, or digital printing press; or
- 31 (2) size presses and on machine coaters that function as part of an in- line papermaking system.

32 (d) With the exception stated in Paragraph (c) of this Rule, emissions of volatile organic compounds from:

- 33 (1) pressure sensitive tape and label surface coating lines with the potential to emit, prior to controls,
34 less than 25 tons per year of volatile organic compounds from coatings shall not exceed 0.20 pounds
35 volatile organic compounds per pound of solids applied (0.067 pounds volatile organic compounds
36 per pound of coating applied);

1 (2) paper, film, and foil surface coating lines with the potential to emit, prior to controls less than 25
2 tons per year of volatile organic compounds from coatings shall not exceed 0.40 pounds of volatile
3 organic compounds per pound of solids (0.08 pounds volatile organic compounds per pound of
4 coating applied); and

5 (3) ~~The volatile organic compounds content limits~~ Compliance shall be determined ~~in accordance with~~
6 ~~Subparagraphs (c)(2) and (c)(3) of Rule .0912 of this Section.~~ pursuant to 15A NCAC 02D
7 .0912(c)(1) and (c)(2).

8 (e) EPA Method 24 or 25A ~~(40CFR Part 60, Appendix A-7)~~ of Appendix A to 40 CFR Part 60 shall be used to
9 determine the volatile organic compounds content of coating materials used at paper, film and foil coatings facilities
10 unless the facility maintains records to document the volatile organic compounds content of coating materials from
11 the manufacturer.

12 (f) Any individual paper, film, and foil coating line with the potential to emit, prior to controls, at least 25 tons per
13 year of volatile organic compounds from coatings shall apply control with overall volatile organic compounds
14 efficiency of 90 percent rather than the emission limits established in Paragraph (d) of this Rule or use a combination
15 of coating and add-on control equipment on a coating unit to meet limits that are equivalent to 90 percent overall
16 control efficiency.

17 (g) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this~~
18 ~~Section.~~ 15A NCAC 02D .0903 and .0958.

19
20 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
21 *Eff. September 1, 2010.*
22
23

1 15A NCAC 02D .0967 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0967 MISCELLANEOUS METAL AND PLASTIC PARTS COATINGS**

4 (a) For the purpose of this Rule, the following definitions apply:

- 5 (1) "Air dried coating" ~~a means~~ means a coating that is cured at a temperature below 90 degrees Celsius
6 (194 degrees Fahrenheit).
- 7 (2) "Baked coating" means a coating that is cured at a temperature at or above 90 degrees Celsius (194
8 degrees Fahrenheit).
- 9 (3) "Clear coat" means a colorless coating which contains binders, but no pigment, and is formulated to
10 form a transparent film.
- 11 (4) "Coating unit" means a series of one or more coating applicators and any associated drying area and
12 oven ~~wherein~~ where a coating is applied, dried, and cured.
- 13 (5) "Drum" means any cylindrical metal shipping container ~~larger~~ with a capacity greater than 12
14 gallons capacity but no larger less than 110-gallons capacity, gallons.
- 15 (6) "Electric dissipating coating" means a coating that rapidly dissipates a high voltage electric charge.
- 16 (7) "Electric-insulating varnish" means ~~a non-convertible type~~ nonconvertible type coating applied to
17 electric motors, components of electric motors, or power transformers, to provide electrical,
18 mechanical, and environmental protection or resistance.
- 19 (8) "Etching filler" means a coating that contains less than 23 percent solids by weight and at least 1/2-
20 percent acid by weight, and is used instead of applying a pretreatment coating followed by a primer.
- 21 (9) "Extreme high-gloss coating" means a coating which, when tested by the American Society for
22 Testing Material Test Method D-523 adopted in 1980, shows a reflectance of 75 or more on a 60
23 degrees meter.
- 24 (10) "Extreme-performance coating" means a coating used on a metal or plastic surface where the coated
25 surface is, in its intended use, subject to the following:
- 26 (A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes,
27 chemical mixtures or solutions;
- 28 (B) Repeated exposure to temperatures in excess of 250 degrees Fahrenheit; or
- 29 (C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with
30 industrial grade solvents, cleansers or scouring agents. Extreme performance coatings
31 include coatings applied to locomotives, railroad cars, farm machinery, and heavy duty
32 trucks.
- 33 (11) "High-performance architectural coating" means a coating used to protect architectural subsections
34 and ~~which~~ meets the requirements of the Architectural Aluminum Manufacturer Association's
35 publication number AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test
36 Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-

1 05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior
2 Performing Organic Coatings on Aluminum Extrusions and Panels).

3 (12) "Miscellaneous metal product and plastic parts surface coatings" means the coatings that are applied
4 to the surfaces of a varied range of metal and plastic parts and ~~products. Such parts or products~~
5 products that are constructed either entirely or partially from metal or plastic. These miscellaneous
6 metal products and plastic parts include metal and plastic components of the following types of
7 products as well as the products themselves: fabricated metal products, molded plastic parts, small
8 and large farm machinery, commercial and industrial machinery and equipment, automotive or
9 transportation equipment, interior or exterior automotive parts, construction equipment, motor
10 vehicle accessories, bicycles and sporting goods, toys, recreational vehicles, pleasure craft
11 (recreational boats), extruded aluminum structural components, railroad cars, heavier vehicles,
12 lawn and garden equipment, business machines, laboratory and medical equipment, electronic
13 equipment, steel drums, metal pipes, and other industrial and household products.

14 (13) "Multi-component coating" means a coating requiring the addition of a separate reactive resin,
15 commonly known as a catalyst or hardener, before application to form a dry film.

16 (14) "One-component coating" means a coating that is ready for application as it comes out of its
17 container to form a dry film. A thinner, necessary to reduce the viscosity, is not considered a
18 component.

19 (b) This Rule applies to miscellaneous metal and plastic parts surface coating units whose volatile organic compounds
20 emissions exceed the threshold established in ~~Paragraph (b) of Rule .0902 of this Section~~ 15A NCAC 02D .0902(b)
21 for coating and related cleaning activities of the following types of products:

- 22 (1) fabricated metal products, molded plastic parts, small and large farm machinery, commercial and
23 industrial machinery and equipment;
24 (2) automotive or transportation equipment, interior or exterior automotive parts, construction
25 equipment, motor vehicle accessories, bicycles and sporting goods;
26 (3) toys, recreational vehicles, pleasure craft (recreational boats), extruded aluminum structural
27 components, railroad cars, heavy vehicles, lawn and garden equipment;
28 (4) business machines, laboratory and medical equipment; and
29 (5) electronic equipment, steel drums metal pipes, and other industrial and household products.

30 (c) This Rule does not apply to:

- 31 (1) coatings that are applied to test panels and coupons as part of research and development, quality
32 control;
33 (2) performance testing activities at paint research or manufacturing facility; or
34 (3) sources covered by ~~Rules .0921, .0922, .0923, .0935, .0936, .0961, .0962, .0963, .0964, .0965, .0966,~~
35 and .0968 of this Section, 15A NCAC 02D .0921, .0922, .0923, .0935, .0936, .0961, .0962, .0963,
36 .0964, .0965, .0966, and .0968.

1 (d) With the exception stated in Paragraph (c) of this Rule, emissions of volatile organic compounds before control
 2 for surface coating of:

3 (1) Metal parts and products shall not exceed limits as established in Table 1;
 4

5 Table 1. Metal Parts and Products Volatile Organic Compounds Content Limits

Coating Category	Air Dried lb VOC/gal coating	Baked lb VOC/gal coating
General One Component; General Multi Component; Military Specification	2.8	2.3
Camouflage; Electric-Insulating Varnish; Etching Filler; High Temperature; Metallic; Mold-Seal; Pan Backing; Pretreatment Coatings; Drum Coating, New, Interior; Drum Coating, Reconditioned, Exterior; Silicone Release; Vacuum-Metalizing	3.5	3.5
Extreme High-Gloss; Extreme Performance; Heat-Resistant; Repair and Touch Up; Solar-Absorbent	3.5	3.0
High Performance Architectural	6.2	6.2
Prefabricated Architectural Multi-Component; Prefabricated Architectural One-Component	3.5	2.3
Drum Coating, New, Exterior	2.8	2.8
Drum Coating, Reconditioned, Interior	4.2	4.2

6
 7 (2) Plastic parts and products shall not exceed limits as established in Table 2;
 8

9 Table 2. Plastic Parts and Products Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
General One Component	2.3
General Multi Component; Metallic	3.5
Electric Dissipating Coatings and Shock-Free Coatings; Optical Coatings; Vacuum-Metalizing	6.7
Extreme Performance	3.5 (2-pack coatings)
Military Specification	2.8 (1 pack) 3.5 (2 pack)
Mold-Seal	6.3
Multi-colored Coatings	5.7

10

1 (3) automotive/transportation and business machine plastic parts shall not exceed limits as established
 2 in Table 3;

3
 4 Table 3. Automotive/Transportation and Business Machine Plastic Parts Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
Automotive/Transportation Coatings	
I. High Bake Coatings – Interior and Exterior Parts	
Non-flexible Primer	3.5
Base Coats; Non-basecoat/clear coat; Flexible Primer	4.3
Clear Coat	4.0
II. Low Bake/Air Dried Coatings – Exterior Parts	
Primers; Basecoat; Non-basecoat/clearcoat	4.8
Clearcoats	4.5
III. Low Bake/Air Dried Coatings – Interior Parts	
IV. Touchup and Repair Coatings	5.2
Business Machine Coatings	
Primers; Topcoat Texture Coat; Touchup and repair	2.9
Fog Coat	2.2

5
 6 (4) pleasure craft shall not exceed limits as established in Table 4;

7
 8 Table 4. Pleasure Craft Surface Coating Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
Extreme High Gloss Topcoat	4.1
High Gloss Topcoat Finish; Primer/Surfacer; All other pleasure craft surface coatings for metal or plastic	3.5
Pretreatment Wash Primers	6.5
High Build Primer Surfacer; Other Substrate Antifoulant Coating	2.8
Aluminum Substrate Antifoulant Coating	4.7

9
 10 (5) motor vehicle materials shall not exceed limits as established in Table 5.

11
 12 Table 5. Motor Vehicle Materials Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal coating
------------------	---------------------

Motor vehicle cavity wax; Motor vehicle sealer; Motor vehicle deadener; Motor vehicle underbody coating; Motor vehicle trunk interior coating	5.4
Motor vehicle gasket/gasket sealing material; Motor vehicle bedliner	1.7
Motor vehicle lubricating wax/compound	5.8

1
2 (e) With the exception of motor vehicle materials coatings, any miscellaneous metal and plastic parts coatings
3 operations facility may choose a combination of low volatile organic compounds coatings and add-on control
4 equipment on a coating unit. Emissions of volatile organic compounds before control with such combination shall
5 not exceed limits for surface coating of:

- 6 (1) Metal parts and products as established in Table 6;
7

8 Table 6. Metal Parts and Products Volatile Organic Compounds Content Limits

Coating Category	Air Dried	Baked
	lb VOC/gal solids	lb VOC/gal solids
General One Component; General Multi Component; Military Specification;	4.52	3.35
Etching Filler; High Temperature; Metallic; Mold-Seal; Pan Backing; Pretreatment Coatings; Silicone Release; Drum Coating, New, Interior; Drum Coating, Reconditioned, Exterior; Vacuum-Metalizing	6.67	6.67
Extreme High-Gloss; Extreme Performance; Heat-Resistant; Solar-Absorbent	6.67	5.06
High Performance Architectural	38.0	38.0
Prefabricated Architectural Multi-Component	6.67	3.35
Prefabricated Architectural One-Component	6.67	3.35
Solar-Absorbent	6.67	5.06
Drum Coating, New, Exterior	4.52	4.52
Drum Coating, Reconditioned, Interior	6.67	9.78

- 9
10 (2) plastic parts and products as established in Table 7;
11

12 Table 7. Plastic Parts and Products Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal solids
General One Component	3.35
General Multi Component; Metallic	6.67

Electric Dissipating Coatings and Shock-Free Coatings Optical Coatings; Vacuum-Metalizing	74.7
Extreme Performance	6.67 (2-pack)
Military Specification	4.52 (1 pack) 6.67 (2 pack)
Mold-Seal	43.7
Multi-colored Coatings	25.3

1
2 (3) automotive/transportation and business machine plastic parts as established in Table 8;

3
4 Table 8. Automotive/Transportation and Business Machine Plastic Parts Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal solids
Automotive/Transportation Coatings	
I. High Bake Coatings – Interior and Exterior Parts	
Flexible Primer	11.58
Non-flexible Primer; Non-basecoat/clear coat	6.67
Base Coats	10.34
Clear Coat	8.76
II. Low Bake/Air Dried Coatings – Exterior Parts	
Primers	13.8
Basecoat; Non-basecoat/clearcoat	15.59
Clearcoats:	11.58
III. Low Bake/Air Dried Coatings – Interior Parts	15.59
IV. Touchup and Repair Coatings	17.72
Business Machine Coatings	
Primers; Topcoat; Texture Coat; Touchup and repair	4.8
Fog Coat	3.14

5
6 (4) pleasure craft surface coatings as established in Table ~~9~~; 9.

7
8 Table 9. Pleasure Craft surface Coatings Volatile Organic Compounds Content Limits

Coating Category	lbs VOC/gal solids
Extreme High Gloss Topcoat	9.2
High Gloss Topcoat; Finish Primer/Surfacer; All other pleasure craft surface coatings for metal or plastic	6.7

Pretreatment Wash Primers	55.6
Aluminum Substrate Antifoulant Coating	12.8
High Build Primer Surfacer; Other Substrate Antifoulant Coating	4.4

1
2 (f) EPA Method 24 or 25A (~~40CFR Part 60, Appendix A 7~~) of Appendix A to 40 CFR Part 60 shall be used to
3 determine the volatile organic compounds content of coating materials used at miscellaneous metal and plastic part
4 coating facilities unless the facility maintains records to document the volatile organic compounds content of coating
5 materials from the manufacturer.

6 (g) With the exception of motor vehicle materials coatings, any miscellaneous metal and plastic parts coatings
7 operations facility may choose to use add-on control equipment with an overall control efficiency of 90 percent in lieu
8 of using low-VOC coatings and specified application methods.

9 (h) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this~~
10 ~~Section.~~ 15A NCAC 02D .0903 and 0958.

11
12 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
13 *Eff. September 1, 2010-2010;*
14 *Readopted Eff.*
15
16

1 15A NCAC 02D .0968 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .0968 AUTOMOBILE AND LIGHT DUTY TRUCK ASSEMBLY COATINGS**

4 (a) For the purpose of this Rule, the following definitions apply:

- 5 (1) "Automobile" means a motor vehicle designed to carry up to eight passengers, excluding vans, sport
6 utility vehicles, and motor vehicles designed primarily to transport light loads of property.
- 7 (2) "Automobile Topcoat Protocol" means Protocol For Determining The Daily Volatile Organic
8 Compound Emission Rate Of Automobile and Light-duty Truck Topcoat Operations (EPA-450/3-
9 88-018).
- 10 (3) "Electrodeposition" means a process of applying a protective, corrosion-resistant waterborne primer
11 on exterior and interior surfaces that provides coverage of recessed areas. It is a dip coating method
12 that uses an electrical field to apply or deposit the conductive coating onto the part. The object
13 being painted acts as an electrode that is oppositely charged from the particles of paint in the dip
14 tank.
- 15 (4) "Final repair" means the operations performed and coating(s) applied to completely assembled
16 motor vehicles or to parts that are not yet on a completely assembled vehicle to correct damage or
17 imperfections in the coating.
- 18 (5) "Light-duty truck" means vans, sport utility vehicles, and motor vehicles designed primarily to
19 transport light loads of property with gross vehicle weight rating of 8,500 pounds or less.
- 20 (6) "Primer-surfacer" means an intermediate protective coating applied over the electrodeposition
21 primer (EDP) and under the topcoat. Primer-surfacer provides adhesion, protection, and appearance
22 properties to the total finish.
- 23 (7) "Solids turnover ratio (R_T)" means the ratio of total volume of coating solids that is added to the
24 EDP system in a calendar month divided by the total volume design capacity of the EDP system.

25 (b) This Rule applies to automobile and light-duty truck assembly coating operations and related cleaning activities
26 whose emissions of volatile organic compounds exceed the threshold established in ~~Paragraph (b) of Rule .0902 of~~
27 ~~this Section~~ 15A NCAC 02D .0902 at:

- 28 (1) automobile or light-duty assembly plants during the vehicle assembly processes with the following
29 primary coating product applications:
- 30 (A) new automobile or new light-duty truck bodies, or body parts for new automobiles or new
31 light-duty trucks;
- 32 (B) other parts that are coated along with these bodies or body parts; or
- 33 (C) additional coatings which include glass bonding primer, adhesives, cavity wax, sealer,
34 deadener, gasket/gasket sealing material, underbody coating, trunk interior coating,
35 bedliner, weatherstrip adhesive, and lubricating waxes/compounds; and
- 36 (2) facilities that perform coating operations on a contractual basis other than plastic or composites
37 molding facilities.

- 1 (c) This Rule does not apply to:
- 2 (1) aerosol coatings of automobile and light-truck assembly coatings;
- 3 (2) coatings that are applied to other parts intended for use in new automobiles or new light-duty trucks
- 4 (e.g., application of spray primer, color and clear coat to fascia or bumpers) on coating lines that are
- 5 not related to the vehicle assembly process at automobile or light-duty assembly plants. They are
- 6 covered by ~~Rules .0964, and .0967 of this Section;~~ 15A NCAC 02D .0964 and .0967; and
- 7 (3) aftermarket repair or replacement parts for automobiles or light-duty trucks that are covered by
- 8 ~~Rules .0964, and .0967 of this Section.~~ 15A NCAC 02D .0964 and .0967.
- 9 (d) With the exception of materials supplied in containers with a net volume of 16 ounces or less, or a net weight of
- 10 one pound or less, emissions of volatile organic compounds before control for:
- 11 (1) automobile and light-duty truck assembly coatings shall not exceed limits established in Table 1.
- 12

13 Table 1. Volatile Organic Compounds emission limits for automobile and light-duty truck assembly coatings.

Assembly Coating Process	Volatile Organic Compounds Emission Limit		
Electrodeposition primer (EDP) operations (including application area, spray/rinse stations, and curing oven)	When solids turnover ratio $(RT)R_T \geq 0.16$;	When $0.040 \leq RT < 0.160$;	When $R_T < 0.040$;
	0.160 ; <u>0.7 lb/gal</u> lb/gal coatings solids applied.	0.160 ; $0.084^{0.160-R} \times 8.34$ lb/gal coating solids applied.	No VOC emission limit.
Primer-surfacer operations (including application area, flash-off area, and oven)	12.0 lb VOC/gal deposited solids on a daily weighted average basis as determined by following the procedures in the revised Automobile Topcoat Protocol		
Topcoat operations (including application area, flash-off area, and oven)	12.0 lb VOC/gal deposited solids on a daily weighted average basis as determined by following the procedures in the revised Automobile Topcoat Protocol		
Final repair operations	4.8 lb VOC/gallon of coating less water and less exempt solvents on a daily weighted average basis or as an occurrence weighted average.		
Combined primer-surfacer and topcoat operations	12.0 lb VOC/gal deposited solids on a daily weighted average basis as determined by following the procedures in the revised Automobile Topcoat Protocol		

- 14
- 15 (2) materials used at automobile and light-duty truck assembly coatings facilities shall not exceed limits
- 16 established in Table 2.

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Table 2. Volatile Organic Compounds emission limits for miscellaneous materials used at automobile and light-duty

Material	VOC Emission Limit (grams of VOC per liter of coating excluding water and exempt compounds, as applied)
Automobile and light-duty truck glass bonding primer	900
Automobile and light-duty truck adhesive	250
Automobile and light-duty truck cavity wax	650
Automobile and light-duty truck sealer	650
Automobile and light-duty truck deadener	650
Automobile and light-duty truck gasket/gasket sealing material	200
Automobile and light-duty truck underbody coating	650
Automobile and light-duty truck trunk interior coating	650
Automobile and light-duty truck bedliner	200
Automobile and light-duty truck weatherstrip adhesive	750
Automobile and light-duty truck lubricating wax/compound	700

(e) EPA Method 24 or 25A (40 CFR Part 60, Appendix A-7) shall be used to determine the volatile organic compounds content of coatings, other than reactive adhesives used at automobile and light-duty truck coating facilities unless the facility maintains records to document the volatile organic compounds content of coating materials from the manufacturer.

(f) The emission limits established in Paragraph (d) of this Rule may be achieved with a combination of higher-solid solvent-borne coatings, efficient application equipment and bake oven exhaust control.

(g) The owner or operator of any facility subject to this Rule shall comply with ~~the Rules .0903 and .0958 of this Section.~~ 15A NCAC 02D .0903 and .0958.

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. September 1, 2010.
Readopted Eff. _____.*

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.G.S.~~ 143-212 and G.S. 143-213, and 15A NCAC 02D .0101
7 shall apply, and in addition the following definitions apply. If a term in this Rule is also defined at 15A NCAC 02D
8 .0101, 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 .1418,
12 emissions of ~~nitrogen oxides~~ NOx as measured and calculated ~~according~~ pursuant to 40 CFR Part
13 75, Subpart H.
- 14 (3) "Actual heat input" means for ~~Rules .1416 through .1422 of this Section,~~ 15A NCAC 02D .1418,
15 heat input as measured and calculated ~~according~~ pursuant 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 pursuant 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~~ pursuant 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

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

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

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

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

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

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

12 (13) "Excess emissions" means an emission rate that exceeds the applicable limitation or standard; for
13 the purposes of this definition, ~~nitrogen oxides NOx emitted by a source covered under Rules .1416,~~
14 ~~.1417, or .1418 of this Section regulated by 15A NCAC 02D .1418~~ during the ozone season above
15 ~~its allocation, as may be adjusted under Rule .1419 of this Section, allocation~~ are not considered
16 excess emissions.

17 (14) "Fossil fuel fired" means:

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

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~~; 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.

8

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~~ 2002;*

13 *Readopted Eff. _____.*

14

15

1 15A NCAC 02D .1402 is proposed for readoption without substantive changes as follows:

2
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) state implementation plan (SIP) call (40 CFR 51.121) provisions of Rules~~
6 ~~.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 15A NCAC 02D .1409(c) and .1416 through .1423 of this Section .1409(c), .1418 and .1423 apply statewide.

10 (d) Rules 15A NCAC 02D .1407 through .1409(b) and .1413 of this Section apply to facilities with potential emissions
11 ~~of nitrogen oxides NOx equal to or greater than~~ greater than or equal to 100 tons per year or 560 pounds per calendar
12 day beginning 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.)~~ "For the purposes of notifying permitted
36 facilities in Forsyth County, "Director" means the Director of the Forsyth County local air pollution control program.
37 Compliance shall be according to Rule .1403 of this Section, determined by 15A NCAC 02D .1403.

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, 15A NCAC 02D .1407 through .1409(b) and 15A NCAC 02D .1413,~~ the
12 Director shall send written notification to all permitted facilities within the county in which the rules are being
13 implemented that are or may be subject to the requirements of this Section informing them that they are or may be
14 subject to the requirements of this Section. Compliance shall be ~~in~~ according to ~~Rule .1403 of this Section, 15A NCAC~~
15 02D .1403.

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

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

- 28 (1) source not required to obtain an air permit ~~under~~ pursuant to 15A NCAC 02Q .0102 or is an
29 insignificant activity as defined ~~at 15A NCAC 02Q .0103(19); in 15A NCAC 02Q .0103;~~
- 30 (2) incinerator or thermal or catalytic oxidizer used primarily for the control of air pollution;
- 31 (3) emergency generator;
- 32 (4) emergency use internal combustion engine; or
- 33 (5) stationary internal combustion engine less than 2400 brake horsepower that operates no more than
34 the following hours between May 1 and September 30:

35 (A) for diesel engines:

$$36 \quad t = \frac{833,333}{ES}$$

$$37 \quad t = 833,333 / ES$$

1 (B) for natural gas-fired engines:

2
$$t = \frac{700,280}{ES}$$

3 ~~$$t = 700,280 / ES$$~~

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

5
6 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (7), (10);*
7 *Eff. April 1, 1995;*
8 *Amended Eff. April 1, 1997; July 1, 1995; April 1, 1995;*
9 *Temporary Amendment Eff. November 1, 2000;*
10 *Amended Eff. April 1, 2001;*
11 *Temporary Amendment Eff. August 1, 2001;*
12 *Amended Eff. June 1, 2008; July 1, 2007; March 1, 2007; July 18, 2002;*
13 *Temporary Amendment Eff. December 31, 2008;*
14 *Temporary Amendment expired September 29, 2009;*
15 *Amended Eff. January 1, ~~2010-2010~~;*
16 *Readopted Eff.*
17
18

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

2
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).

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:

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

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.

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.

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.

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

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:

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

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.

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

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:

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

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~~, 15A NCAC 02D .1415, by January 1, 2008 and

32 (C) The owner or operator shall implement any required recordkeeping and reporting
33 requirements, according to ~~Rule .1404 of this Section~~, 15A NCAC 02D .1404, by January
34 1, 2008.

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

- 1 (A) The owner or operator shall submit a permit application and a compliance schedule by
2 August 1, 2007.
- 3 (B) The compliance schedule shall contain a date by which contracts for installation of the
4 modification shall be awarded or orders shall be issued for purchase of component parts.
- 5 (C) The compliance schedule shall contain a date by which installation of the modification
6 shall begin.
- 7 (D) The compliance schedule shall contain a date by which installation of the modification
8 shall be completed.
- 9 (E) If the source is subject to a limitation, the compliance schedule shall contain, a date by
10 which compliance testing shall be completed.
- 11 (F) Final compliance shall be achieved no later than April 1, 2009.
- 12 (3) If compliance with this Section is to be achieved through the implementation of an emissions
13 averaging plan as provided for in ~~Rule .1410 of this Section~~ 15A NCAC 02D .1410:
- 14 (A) The owner or operator shall abide by the applicable requirements of Subparagraph (c)(1)
15 or (c)(2) of this ~~Rule Paragraph~~ for certification or modification of each source to be
16 included under the averaging plan;
- 17 (B) The owner or operator shall submit a plan to implement an emissions averaging plan
18 according to ~~Rule .1410 of this Section~~ 15A NCAC 02D .1410 by August 1, 2007.
- 19 (C) Final compliance shall be achieved within one year no later than January 1, 2008.
- 20 (4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel
21 switching program as provided for in ~~Rule .1411 of this Section~~ 15A NCAC 02D .1411:
- 22 (A) The owner or operator shall make all necessary modifications according to Subparagraph
23 (c)(2) of this ~~Rule Paragraph~~.
- 24 (B) The owner or operator shall include a plan for complying with the requirements of ~~Rule~~
25 ~~.1411 of this Section~~ 15A NCAC 02D .1411 with the permit application required under
26 Part (A) of this Subparagraph.
- 27 (C) Final compliance shall be achieved no later than April 1, 2009.
- 28 (5) Increments of progress certification. The owner or operator shall certify to the Director, within five
29 days after the deadline for each increment of progress in this Paragraph, whether the required
30 increment of progress has been met.
- 31 (d) Sources already in compliance.
- 32 (1) Maintenance area and Charlotte ozone nonattainment area contingency plan. Paragraph (b) of this
33 Rule shall not apply to sources that are in compliance with the applicable rules of this Section when
34 the Director notices the implementation of rules in the North Carolina Register that resolves a
35 violation of the ambient air quality standard for ozone and that ~~have~~ has determined and certified
36 compliance to the satisfaction of the Director within six months after the Director notices the

1 implementation of rules in the North Carolina Register that resolves a violation of the ambient air
2 quality standard for ozone.

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

6 (e) New sources.

- 7 (1) Maintenance area and Charlotte ozone nonattainment area contingency plan. The owner or operator
8 of any new source of nitrogen oxides not permitted before the date the Director notices in the North
9 Carolina Register according to ~~Paragraph (e), (f), or (g) of Rule .1402 of this Section~~, 15A NCAC
10 02D .1402(e), (f), or (g) shall comply with all applicable rules in this Section upon start-up of the
11 source. The owner or operator of any new source covered ~~under Rules .1407, .1408, .1409, .1413,~~
12 ~~or .1418 of this Section~~ by 15A NCAC 02D .1407, .1408, .1409, .1413, or .1418 shall comply with
13 all applicable rules in this Section upon start-up of the source.

- 14 (2) Nonattainment areas. The owner or operator of any new source of nitrogen oxides not permitted
15 before March 1, 2007 in an area identified in ~~Paragraph (d) of Rule .1402 of this Section~~, 15A NCAC
16 02D .1402(d) shall comply with all applicable rules in this Section upon start-up of the source.

17
18 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.107(a)(5), (7), (10);
19 Eff. April 1, 1995;
20 Amended Eff. April 1, 1997;
21 Temporary Amendment Eff. November 1, 2000;
22 Amended Eff. April 1, 2001;
23 Temporary Amendment Eff. August 1, 2001;
24 Amended Eff. July 1, 2007; March 1, 2007; July 18, ~~2002-2002;~~
25 Readopted Eff. _____.
26
27

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

2
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.

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 operating and maintenance procedures are being used,
12 such as, compliance with permit conditions, operating and maintenance procedures, and
13 preventative maintenance program, and monitoring results and compliance history) when
14 the monitoring measurements were missing.

15 (f) Quality assurance for continuous emissions monitors.

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

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

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

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

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

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

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

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

1 (g) Averaging time for continuous emissions monitors. When compliance with a limitation established for a source
2 subject to the requirements of this Section is determined using a continuous emissions monitoring system, a 24-hour
3 block average as described ~~under Rule .0606 of this Subchapter in 15A NCAC 02D .0606~~ shall be recorded for each
4 day beginning May 1 through September 30 unless a specific rule requires a different averaging time or procedure. A
5 24-hour block average ~~described in Rule .0606 of this Subchapter as defined in 15A NCAC 02D .0606~~ shall be used
6 when a continuous emissions monitoring system is used to determine compliance with a short-term ~~pounds per
7 million Btu standard~~ pounds per million Btu standard in Rule .1418 of this Section. 15A NCAC 02D .1418.

8 (h) Heat input. Heat input shall be determined:

- 9 (1) for sources required to use a monitoring system meeting the requirements of 40 CFR Part 75, using
10 the procedures in 40 CFR Part 75; or
11 (2) for sources not required to use a monitoring system meeting the requirements of 40 CFR Part 75
12 using:
13 (A) 40 CFR Part 75,
14 (B) a method in 15A NCAC 02D .0501, or
15 (C) the best available heat input data if approved by the ~~Director (the~~ Director. The Director
16 shall grant approval if he finds that the heat input data is the best available).

17 (i) Source testing. When compliance with a limitation established for a source subject to the requirements of this
18 Section is determined using source testing, the source testing shall follow the procedures ~~of Rule .1415 of this Section.~~
19 in 15A NCAC 02D .1415.

20 (j) Alternative monitoring and reporting procedures. The owner or operator of a source covered under this Rule may
21 request alternative monitoring or reporting procedures ~~under Rule .0612, Alternative Monitoring and Reporting~~
22 Procedures. pursuant to 15A NCAC 02D .0612.

23
24 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5),(7),(10);*
25 *Eff. April 1, 1995;*
26 *Amended Eff. April 1, 1999;*
27 *Temporary Amendment Eff. November 1, 2000;*
28 *Amended Eff. April 1, 2001;*
29 *Temporary Amendment Eff. August 1, 2001;*
30 *Amendment Eff. December 1, 2005; January 1, 2005; May 1, 2004; July 15, 2002;*
31 *Temporary Amendment Eff. December 31, 2008(this amendment replaces the amendment approved*
32 *by RRC on May 15, 2008);*
33 *Amended Eff. September 29, 2009(amendment approved by RRC on May 15, ~~2008~~ 2008);*
34 *Readopted Eff. _____.*

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 the use of gaseous diluent to achieve compliance and the piecemeal carrying
8 out of an operation to avoid coverage by a rule that applies only to operations larger than a specified size.

9

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

11 *Eff. April 1, ~~1995~~.1005*

12 *Readopted Eff._____.*

13

14

1 15A NCAC 02D .1407 is proposed for readoption 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~~following applicable limitation:

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

22 Fuel/Boiler Type	23 Firing Method		
	24 <u>Tangential</u>	25 <u>Wall</u>	26 <u>Stoker or Other</u>
27 Coal (Wet Bottom)	28 1.0	1.0	N/A
Coal (Dry Bottom)	0.45	0.50	0.40
Wood or Refuse	0.20	0.30	0.20
Oil	0.30	0.30	0.30
Gas	0.20	0.20	0.20

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

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.

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

14
15 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5), (7), (10);*
16 *Eff. April 1, 1995;*
17 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
18 *Amended Eff. June 1, 2008; July 18, 2002;*
19 *Temporary Amendment Eff. December 31, 2008;*
20 *Temporary Amendment expired September 29, ~~2009~~ 2009;*
21 *Readopted Eff. _____.*
22
23

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

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.~~

5 (b) Unless the owner or operator chooses the option of emission averaging ~~under Rule .1410 of this Section, in 15A~~
6 NCAC 02D .1410, the owner or operator of a stationary combustion turbine with a heat input rate greater than 100
7 million Btu per hour but less than or equal to 250 million Btu per hour shall comply with the following limitations:

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

12 If necessary, the owner or operator shall install combustion modification technology or other ~~NO_x~~ NO_x control
13 technology 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, 15A NCAC 02D .1401~~, or if the requirements of this Rule are not RACT for the
16 particular stationary combustion turbine, the owner or operator may petition the Director for an alternative limitation
17 or standard ~~according to Rule .1412 of this Section, in accordance with 15A NCAC 02D .1412.~~

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

- 20 (1) ~~using~~ a continuous emissions monitoring system, or
21 (2) ~~using~~ annual source testing ~~according to Rule .1415 of this Section, in accordance with 15A NCAC~~
22 02D .1415.

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

26
27 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5), (7), (10);*
28 *Eff. April 1, 1995;*
29 *Temporary Amendment Eff. August 1, 2001; November 1, 2000;*
30 *Amended Eff. June 1, 2008; July 18, 2002;*
31 *Temporary Amendment Eff. December 31, 2008;*
32 *Temporary Amendment expired September 29, ~~2009~~ 2009;*
33 *Readopted Eff. _____.*
34
35

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

2

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:

9

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

13

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

18

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 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

22

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.

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.

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:

- 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)(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.

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.

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 15A NCAC 02D or 02Q Subchapter 02D or 02Q of this Title or Title 40 of the Code of
31 Federal Regulations may be used to offset the emissions of another source. ~~The person requesting the offset shall~~
32 submit the following information to the Director:

- 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~~ approve the offset if he or she finds that all the information required by this Paragraph has been
7 submitted and that the offset is an actual decrease in emissions that have not previously been relied on to comply with
8 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, ~~2009-2009~~;*

17 *Readopted Eff.*

18

19

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~~ NO_x emissions from the averaged
12 set of sources based on the total heat input are equal to or less than the ~~NO_x~~ NO_x emissions that would have occurred
13 if each 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~~ 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~~ NO_x
23 emissions 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~~ 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~~-2008);*
36 *Readopted Eff. _____.*
37

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

2
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.~~

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

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 Compliance with this Section according to this Rule does not remove or reduce any applicable requirement of the
9 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 NO_x~~ emission limit beginning October 1 and ending April 30 that will result in
12 annual ~~NO_x NO_x~~ emissions of less than or equal to the ~~NO_x NO_x~~ that would have been emitted if the source complied
13 with the applicable limitation for the combustion of coal for the entire calendar year. Compliance with this Section
14 according to this Rule 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~~ season;
- 22 (5) a demonstration that the source will comply with the ~~NO_x 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.

26
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, 2009~~;*
35 *Readopted Eff.*
36
37

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

2
3 **15A NCAC 02D .1412 PETITION FOR ALTERNATIVE LIMITATIONS**

4 (a) If the owner or operator of a source subject to the requirements of ~~Rule .1407, .1408, or .1409(b) of this Section:~~
5 15A NCAC 02D .1407, .1408, or .1409(b):

- 6 (1) cannot achieve compliance with the applicable limitation after reasonable effort to satisfy the
7 requirements of ~~Rules .1407, .1408, or .1409 of this Section~~ 15A NCAC 02D .1407, .1408, or .1409
8 ~~or if the requirements of Rules .1407, .1408, or .1409 of this Section~~ in these Rules are not RACT
9 for the particular source; and
10 (2) cannot provide reasonable assurance for overall compliance at a facility through the implementation
11 of an emissions averaging plan ~~as provided for in Rule .1410 of this Section;~~ pursuant to 15A NCAC
12 02D .1410.

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

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

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

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

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

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

33
34 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.107(a)(5), (7), (10);
35 Eff. April 1, 1995;
36 Temporary Amendment Eff. August 1, 2001; November 1, 2000;
37 Amended Eff. June 1, 2008; July 18, ~~2002,~~ 2002;

1
2
3

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

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

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

14 (c) The Director shall approve the proposed limitation if he or she finds that:

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

19

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

21 *Eff. April 1, 1995;*

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

23 *Amended Eff. July 18, ~~2002-2002~~;*

24 *Readopted Eff. _____.*

25

26

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.

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.

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~~2002;
21 Readopted Eff. _____.
22
23

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~~, 2002;*

13 *Readopted Eff. _____.*

14

15

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~~ NOx from any fossil fuel-fired stationary boiler,
6 combustion turbine, or combined cycle system permitted after October 31, 2000, serving a generator with a nameplate
7 capacity greater than 25 megawatts electrical and selling any amount of electricity ~~shall not exceed;~~ shall meet the
8 applicable 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~~ NOx from any fossil fuel-fired
22 stationary boiler, combustion turbine, or combined cycle system having a maximum design heat input greater than
23 250 million Btu per hour which is permitted after October 31, 2000, and not covered under Paragraph (a) of this Rule,
24 ~~shall not 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.

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~~ 15A NCAC 02D .1423 if the engine
3 is not covered under ~~Rule .0530 (prevention of significant deterioration) or .0531 (nonattainment area major source~~
4 ~~review) of this Subchapter.~~ 15A NCAC 02D .0530 or .0531:

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

13 If the engine is covered ~~under Rule .0530 of this Subchapter,~~ by 15A NCAC 02D .0530, it shall comply with the
14 requirements of ~~Rule .1423 of this Section~~ 15A NCAC 02D .1423 or the best available control technology
15 requirements of ~~Rule .0530 of this Subchapter,~~ 15A NCAC 02D .0530, whichever requires the greater degree of
16 reduction. If the engine is covered ~~under Rule .0531 of this Subchapter,~~ by 15A NCAC 02D .0531, it shall comply
17 with lowest available emission rate technology requirements of ~~Rule .0531 of this Subchapter.~~ 15A NCAC 02D .0531.

18 (d) Monitoring. The owner or operator of a source subject to this Rule except internal combustion engines shall show
19 compliance using a continuous emission monitor that meets the requirements of ~~Rule .1404(d) of this Section.~~ 15A
20 NCAC 02D .1404(d). Internal combustion engines shall comply with the monitoring requirements in ~~Rule .1423 of~~
21 ~~this Section.~~ 15A NCAC 02D .1423. Monitors shall be installed before the first ozone season in which the source will
22 operate and shall be operated each day during the ozone season that the source operates.

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

1 15A NCAC 02D .1423 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1423 LARGE INTERNAL COMBUSTION ENGINES**

4 (a) Applicability. This Rule applies to the following internal combustion engines permitted after October 30, 2000
5 that are subject to ~~Rule .1418 of this Section~~ 15A NCAC 02D .1418 but are not subject to ~~Rules .0530 (prevention of~~
6 ~~significant deterioration) or .0531 (nonattainment area major new source review) of this Subchapter.~~ 15A NCAC 02D
7 .0530 or .0531:

- 8 (1) rich burn stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal
9 to 2,400 brake horsepower;
- 10 (2) lean burn stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal
11 to 2,400 brake horsepower;
- 12 (3) diesel stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal to
13 3,000 brake horsepower; or
- 14 (4) dual fuel stationary internal combustion engines rated at ~~equal or greater than~~ greater than or equal
15 to 4,400 brake horsepower.

16 (b) Emission limitation. The owner or operator of a stationary internal combustion engine shall not cause to be emitted
17 into the atmosphere ~~nitrogen oxides~~ NOx in excess of the following applicable limit, expressed as ~~nitrogen dioxide~~
18 NOx in parts per million by volume corrected to 15 percent ~~parts per million by volume (ppmv)~~ stack gas oxygen on
19 a dry basis, averaged over a rolling 30-day period, as may be adjusted ~~under~~ pursuant to Paragraph (c) of this Rule:

20
21
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29
MAXIMUM ALLOWABLE NOx EMISSION CONCENTRATION FOR
STATIONARY INTERNAL COMBUSTION ENGINES
(parts per million)

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

21
22 (c) Adjustment. Each emission limit expressed in Paragraph (b) of this Rule may be multiplied by X, where X equals
23 the engine efficiency (E) divided by a reference efficiency of 30 percent. Engine efficiency (E) shall be determined
24 using one of the methods specified in Subparagraphs (1) or (2) of this Paragraph, whichever provides a higher value.
25 However, engine efficiency (E) shall not be less than 30 percent. An engine with an efficiency lower than 30 percent
26 shall be assigned an efficiency of 30 percent.

27 (1) _____

28
$$E = \frac{(Engine\ output) * (100)}{Energy\ input}$$

29 ~~—(Engine output)*(100)~~

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

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) _____

$$E = \frac{(\text{Manufacturer's rated efficiency at LHV}) * (\text{LHV})}{\text{HHV}}$$

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

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~~;
- (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;

- 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~~, 2002;*

18 *Readopted Eff.*

1 15A NCAC 02D .1701 is proposed for readoption without any changes as follows:

2

3

SECTION .1700 - MUNICIPAL SOLID WASTE LANDFILLS

4

15A NCAC 02D .1701 DEFINITIONS

6 For the purpose of this Rule the definitions contained in 40 CFR 60.751 shall apply.

7

8 *History Note: Authority G.S. 143-213; 143-215.3(a)(1);*

9

Eff. July 1, ~~1998~~, 1998;

10

Readopted Eff

1 15A NCAC 02D .1702 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 02D .1702 APPLICABILITY**

4 (a) All existing MSW landfills that meet the following conditions are subject to this Section:

5 (1) The landfill has accepted waste at any time since November 8, 1987, or has additional permitted
6 capacity available for future waste deposition and has not been documented as being permanently
7 closed; and

8 (2) The landfill was in operation, or construction, reconstruction, or modification was commenced
9 before ~~May 30, 1991~~, July 17, 2014.

10 (b) Physical or operational changes made to an existing MSW landfill solely to comply with an emission standard
11 under this Section are not considered a modification or reconstruction, and do not subject an existing MSW landfill to
12 the requirements of 40 CFR 60, Subpart ~~WWW-XXX~~ or 15A NCAC 2D .0524.

13

14 *History Note:* Authority G.S. 143-213; 143-215.3(a)(1); 143-215.107(a)(5),(10);

15 Eff. July 1, ~~1998~~, 1998;

16 Readopted Eff.

1 15A NCAC 02D .1703 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1703 EMISSION STANDARDS**

4 (a) Any MSW landfill subject to this Section and meeting the following two conditions shall meet the gas collection
5 and control requirements of Paragraph (b) of this Rule:

6 (1) The landfill has a design capacity greater than or equal to 2.75 million tons and 2.5 million cubic
7 meters. The owner or operator of the landfill may calculate the design capacity in either tons or
8 cubic meters for comparison with the exemption values. Any density conversion shall be
9 documented and submitted along with the initial reporting requirements of ~~Rule 15A NCAC 02D~~
10 ~~.1708(a); -1708(a) of this Section;~~ and

11 (2) The landfill has a non-methane organic compound (NMOC) emission rate of 55 tons per year or
12 more. The NMOC emission rate shall be calculated by following the procedures outlined in 40 CFR
13 60.754.

14 (b) Each owner or operator of a MSW landfill meeting the conditions of Paragraph (a) of this Rule shall:

15 (1) submit to the Director a site-specific design plan for the gas collection and control system that meets
16 the requirements of 40 CFR 60.752(b)(2)(i);

17 (2) install a gas collection system that meets the requirements of 40 CFR 60.752(b)(2)(ii); and

18 (3) control the collected emissions of MSW landfill gas through the use of one or more of the following
19 control ~~devices;~~ options:

20 (A) An open flare designed and operated in accordance with the parameters established in 40
21 CFR 60.18;

22 (B) A control system designed and operated to reduce NMOC by 98 weight percent; ~~or~~

23 (C) An enclosed combustor designed and operated to reduce the outlet NMOC concentration
24 to 20 parts per million as hexane by volume, on a dry basis at three percent oxygen, or ~~less.~~
25 less; or

26 (D) Treatment system that processes the collected gas for subsequent sale or use in accordance
27 with 40 CFR 60.752(b)(2)(iii)(C).

28 (c) The gas collection and control system required under Paragraph (b) of this Rule may be capped or removed
29 provided that all the conditions of 40 CFR 60.752(b)(2)(v)(A), (B) and (C) are met.

30
31 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5),(10);*

32 *Eff. July 1, 1998;*

33 *Amended Eff. July 1, ~~2000-2000~~;*

34 *Readopted Eff.*

1 15A NCAC 02D .1704 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .1704 TEST METHODS AND PROCEDURES**

4 The MSW landfill NMOC emission rate shall be calculated by following the procedures in 40 CFR 60.754, as
5 applicable, in order to determine whether the landfill meets the conditions of ~~Rule 15A NCAC 02D .1703(a)(2).~~
6 ~~.1703(a)(2) of this Section.~~

7

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

9

Eff. July 1, ~~1998~~ 1998;

10

Readopted Eff

1 15A NCAC 02D .1705 is proposed for reoption without substantive changes as follows:
2

3 **15A NCAC 02D .1705 OPERATIONAL STANDARDS**

4 The owner and operator of a MSW landfill required to install a landfill gas collection and control system to comply
5 with ~~Rule .1703(b) of this Section~~ 15A NCAC 02D .1703(b) shall:

- 6 (1) operate the collection system in accordance with 40 CFR 60.753(a);
- 7 (2) operate the collection system with negative pressure at each wellhead in accordance with 40 CFR
8 60.753(b);
- 9 (3) operate each interior wellhead in the collection system in accordance with 40 CFR 60.753(c);
- 10 (4) operate the collection system so that the methane concentration is less than 500 parts per million
11 above background at the surface of the landfill. To determine if this level is exceeded, the owner
12 and operator shall follow the procedures given in 40 CFR 60.753(d);
- 13 (5) operate the collection system such that all collected gases are vented to a control system designed
14 and operated in compliance with ~~Rule .1703(b)(3) of this Section~~ 15A NCAC 02D .1703(b)(3). In
15 the event that the gas collection and control system is inoperable, measures shall be taken as outlined
16 in 40 CFR 60.753(e);
- 17 (6) operate the control system at all times when the collected gas is routed to the control system;
- 18 (7) take corrective action as specified in 40 CFR 60.755(c) if monitoring demonstrates that the operation
19 standards and requirements of Items (2), (3), and (4) of this Rule are not met. If the required
20 corrective actions are taken, the emissions monitored shall not be considered a violation of the
21 operational standards of this Rule.

22
23 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5),(10);*
24 *Eff. July 1, ~~1998~~ 1998;*
25 *Readopted Eff*
26
27
28

1 15A NCAC 02D .1706 is proposed for reoption without substantive changes as follows:

2

3 **15A NCAC 02D .1706 COMPLIANCE PROVISIONS**

4 (a) Compliance with ~~Rule .1703(b) of this Section~~ 15A NCAC 02D .1703(b) shall be determined using the provisions
5 of 40 CFR 60.755(a).

6 (b) Compliance with ~~Rule .1705(1) of this Section~~ 15A NCAC 02D .1705(1) shall be determined using the provisions
7 of 40 CFR 60.755(b).

8 (c) Compliance with the surface methane operational standards of ~~Rule .1705(4) of this Section~~ 15A NCAC 02D
9 .1705(4) shall be achieved using the procedures of 40 CFR 60.755(c) and (d).

10 (d) The provisions of this Rule apply at all times, except during periods of start-up, shutdown, or malfunction,
11 provided that the duration of start-up, shutdown, or malfunction shall not exceed five days for collection systems and
12 shall not exceed one hour for treatment or control devices.

13

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

15 *Eff. July 1, ~~1998~~ 1998;*

16 *Readopted Eff*

17

18

19

1 15A NCAC 02D .1707 is proposed for readoption without substantive changes as follows:

2

3 **15A NCAC 02D .1707 MONITORING PROVISIONS**

4 (a) The owner or operator of a MSW landfill who is required to comply with ~~Rule .1703(b)(2) of this Section~~15A
5 NCAC 02D .1703(b)(2) for an active gas collection system shall perform the monitoring requirements as outlined in
6 40 CFR 60.756(a).

7 (b) The owner or operator of an MSW landfill seeking to comply with the provisions of ~~Rule .1703(b)(3)(C) of this~~
8 ~~Section~~15A NCAC 02D .1703(b)(3)(C) using an enclosed combustor shall perform the monitoring requirements as
9 outlined in 40 CFR 60.756(b).

10 (c) The owner or operator of an MSW landfill seeking to comply with the provisions of ~~Rule .1703(b)(3)(A) of this~~
11 ~~Section~~15A NCAC 02D .1703(b)(3)(A) using an open flare shall perform the monitoring requirements as outlined in
12 40 CFR 60.756(c).

13 (d) The owner or operator of an MSW landfill seeking to comply with the provisions of ~~Rule .1703(b)(3) of this~~
14 ~~Section~~15A NCAC 02D .1703(b)(3) using a device other than an open flare or an enclosed combustor shall comply
15 with the provisions of 40 CFR 60.756(d).

16 (e) The owner or operator of an MSW landfill seeking to comply with the provisions of ~~Rule .1703(b)(3)(B) of this~~
17 ~~Section~~15A NCAC 02D .1703(b)(3)(B) using an active collection system or seeking to monitor alternative parameters
18 to those required by ~~Rule .1704 through .1707 of this Section~~15A NCAC 02D .1704 through .1707 shall comply with
19 the provisions of 40 CFR 60.756(e).

20 (f) The owner or operator of an MSW landfill seeking to comply with the provisions of ~~Rule .1706(e) of this~~
21 ~~Section~~15A NCAC 02D .1706(c) shall do so in accordance with 40 CFR 60.756(f).

22

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

24 *Eff. July 1, ~~1998-1998~~;*

25 *Readopted Eff*

26

27

28

1 15A NCAC 02D .1708 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1708 REPORTING REQUIREMENTS**

4 (a) The owner or operator of a MSW landfill subject to this Rule according to ~~Rule .1702 of this Section~~ 15A NCAC
5 02D .1702 shall submit an initial design capacity report to the Director in accordance with the following:

- 6 (1) The initial design capacity report shall fulfill the requirements of the notification of the date
7 construction is commenced as required under 40 CFR 60.7(a)(1) and shall be submitted no later than
8 the earliest of the day from the dates given in 40 CFR 60.757(a)(1)(i) through 40 CFR
9 ~~60.757(a)(1)(iii); 60.757(a)(1)(ii);~~
- 10 (2) The initial design capacity report shall contain the information given in 40 CFR 60.757(a)(2)(i) and
11 40 CFR 60.757(a)(2)(ii); and
- 12 (3) An amended design capacity report shall be submitted to the Director in accordance with 40 CFR
13 60.757(a)(3) whenever an increase in the design capacity of the landfill results in the design capacity
14 of the landfill to exceed 2.5 million cubic meters and 2.75 million tons.

15 (b) The owner or operator of a MSW landfill subject to this Section shall submit a NMOC emission report to the
16 Director initially and annually thereafter, except as provided for in 40 CFR 60.757(b)(1)(ii) or (b)(3). The initial
17 NMOC emission rate report shall be submitted within 90 days of the day waste acceptance commences and may be
18 combined with the initial design capacity report required in Paragraph (a) of this Section. The NMOC emission rate
19 report shall:

- 20 (1) contain an annual or five-year estimate of the NMOC emission rate calculated using the formula
21 and procedures provided in 40 CFR 60.754(a) or (b), as applicable; and
- 22 (2) include all the data, calculations, sample reports and measurements used to estimate the annual or
23 five-year emissions.

24 (c) The owner or operator of a MSW landfill subject to ~~Rule .1703(b) of this Section~~ 15A NCAC 02D .1703(b) shall
25 submit a collection and control system design plan to the Director within one year of the first report, required under
26 Paragraph (b) of this Rule, in which the emission rate exceeds 55 tons per year, except as provided for in 40 CFR
27 60.757(c)(1) and (c)(2).

28 (d) The owner or operator of a controlled landfill shall submit a closure report to the Director within 30 days of
29 cessation of waste acceptance. If a closure report has been submitted to the Director, no additional waste shall be
30 placed into the landfill without first filing a notification of modification as described under 40 CFR 60.7(a)(4). The
31 Director may request such additional information as may be necessary to verify that permanent closure of the MSW
32 landfill has taken place in accordance with the requirements of 40 CFR 258.60.

33 (e) The owner or operator of a controlled MSW landfill shall submit an equipment removal report 30 days prior to
34 removal or cessation of operation of the control equipment according to ~~Rule .1703(e) of this Section.~~ 15A NCAC
35 02D .1703(c) The report shall contain the items listed in 40 CFR 60.757(e)(1). The Director may request such
36 additional information as may be reasonably necessary to verify that all the conditions for removal in 40 CFR
37 60.752(b)(2)(v) have been met.

1 (f) The owner or operator of a MSW landfill seeking to comply with ~~Rule .1703(b)(2) of this Section~~ 15A NCAC 02D
2 .1703(b)(2) using an active collection system designed in accordance with 40 CFR 60.752(b)(2)(ii) shall submit annual
3 reports of the recorded information in 40 CFR 60.757(f)(1) through (f)(6). The initial annual report shall be submitted
4 within 180 days of installation and start-up of the collection and control system, and shall include the initial
5 performance test report required under 40 CFR 60.8.

6 (g) The owner or operator of a MSW landfill seeking to comply with ~~Rule .1703(b)(3) of this Section~~ 15A NCAC
7 02D .1703(b)(3) using an enclosed combustion device or flare shall report the excess as defined in 40 CFR
8 60.758(c)(1).

9 (h) The owner or operator of a MSW landfill required to comply with ~~Rule .1703(b)(1) of this Section~~ 15A NCAC
10 02D .1703(b)(1) shall include the information given in 40 CFR 60.757(g)(1) through (g)(6) with the initial
11 performance test report required under 40 CFR 60.8.

12
13 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5),(10);*
14 *Eff. July 1, 1998;*
15 *Amended Eff. July 1, ~~2000-2000~~;*
16 *Readopted Eff _____.*
17
18

1 15A NCAC 02D .1709 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1709 RECORDKEEPING REQUIREMENTS**

4 (a) The owner or operator of a MSW landfill subject to this Section and having a maximum design capacity equal to
5 or greater than 2.5 million cubic meters and 2.75 million tons shall keep on-site for at least five years records of the
6 information listed in 40 CFR 60.758(a). Off-site records may be maintained if they are retrievable within four hours.
7 Either paper copy or electronic formats of the records shall be acceptable.

8 (b) The owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the
9 control equipment of the data listed in 40 CFR ~~60.757(b)(1) through (b)(4)~~ 60.758(b)(1) through (b)(4) as measured
10 during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be
11 maintained for a minimum of five years. Records of the control device vendor specifications shall be maintained until
12 removal.

13 (c) Each owner or operator of a MSW landfill subject to this Section shall keep for five years up-to-date, readily
14 accessible continuous records of the equipment operating parameters specified to be monitored in ~~Rule .1707 of this~~
15 ~~Section~~ 15A NCAC 02D .1707 and records for periods of operation during which the parameter boundaries established
16 during the most recent performance test are exceeded. The parameter boundaries considered in excess of those
17 established during the performance test are defined in 40 CFR ~~60.757(e)(1)(i)~~ 60.758(c)(1)(i) and (ii) and are also
18 required to be reported ~~under pursuant to Rule .1708(g) of this Section.~~ 15A NCAC 02D .1708(g).

19 (d) The owner or operator of a MSW landfill subject to ~~Rule .1703(b) of this Section~~ 15A NCAC 02D .1703(b) shall
20 keep for the life of the collection system an up-to-date, readily accessible plot map showing existing and planned
21 collectors in the system and provide unique identification location labels for each collector. Records of newly installed
22 collectors shall be maintained in accordance with 40 CFR 60.758(d)(1) and documentation of asbestos-containing or
23 nondegradable waste excluded from collection shall be kept in accordance with 40 CFR 60.758(d)(2).

24 (e) The owner or operator of a MSW landfill subject to ~~Rule .1703(b) of this Section~~ 15A NCAC 02D .1703(b) shall
25 keep for at least five years records of emissions from the collection and control system exceeding the emission
26 standards in accordance with 40 CFR 60.758(e).

27 (f) The owner or operator of MSW landfill subject to ~~Rule .1703(b) of this Section~~ 15A NCAC 02D .1703(b) shall
28 keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication
29 of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines,
30 specified ~~under pursuant to~~ 40 CFR 60.756.

31 (g) The owner or operator of MSW landfill subject to ~~Rule .1703(b) of this Section~~ 15A NCAC 02D .1703(b) who
32 uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with 40 CFR
33 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process
34 heater.

35 (h) The owner or operator of MSW landfill seeking to comply with the provisions of ~~Rule .1703(b) of this Section~~ 15A
36 NCAC 02D .1703(b) by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame

1 or flare pilot flame monitoring specified ~~under~~ pursuant to 40 CFR 60 .756(c), and up-to-date, readily accessible
2 records of all periods of operation in which the flame or flare pilot flame in absent.

3

4 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(4),(5),(10);*

5 *Eff. July 1, 1998;*

6 *Amended Eff. July 1, ~~2000~~. 2000;*

7 *Readopted Eff_____.*

8

1 15A NCAC 02D .1710 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1710 COMPLIANCE SCHEDULES**

4 ~~(a) Except as provided for in Paragraph (b) of this Rule, the schedule for compliance with the requirements of this~~
5 ~~Section shall meet the following deadlines:~~

6 ~~(1) Each existing MSW landfill subject to this Section according to Rule .1702 of this Section and~~
7 ~~exceeding the design capacity limitation of Rule .1703(a)(1) of this Section shall submit an~~
8 ~~application for a permit under 15A NCAC 2Q .0500 by July 1, 1999.~~

9 ~~(2) Each existing MSW landfill subject to this Section according to Rule .1702 of this Section and~~
10 ~~exceeding the design capacity and NMOC emission rate limitations of Rule .1703(a)(1) and (2) of~~
11 ~~this Section shall:~~

12 ~~(A) submit a site specific design plan for the gas collection and control system to the Director~~
13 ~~by July 1, 1999; and~~

14 ~~(B) plan, award contracts, and install MSW landfill air emission collection and control system~~
15 ~~capable of meeting the emission standards established under Rule .1703 of this Section by~~
16 ~~January 1, 2001.~~

17 ~~(b) For each existing MSW landfill subject to this Section as specified in Rule .1702 of this Section~~ 15A NCAC 02D
18 .1702 and meeting the design capacity condition of ~~Rule .1703(a)(1) of this Section~~ 15A NCAC 02D .1703(a)(1)
19 whose NMOC emission rate is less than 55 tons per year on July 1, 1998, shall:

20 (1) submit a site-specific design plan for the gas collection and control system to the Director within 12
21 months of first exceeding the NMOC emission rate of 55 tons per year; and

22 (2) plan, award contracts, and install MSW landfill air emission collection and control system capable
23 of meeting the emission standards established ~~under Rule .1703 of this Section~~ pursuant to 15A
24 NCAC 02D .1703 within 30 months of the date when the conditions in ~~Rule .1703(a)(2) of this~~
25 ~~Section~~ 15A NCAC 02D .1703(a)(2) are met.

26
27 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(4),(5);*

28 *Eff. July 1, 1998, 1998;*

29 *Readopted Eff _____.*

1 15A NCAC 02D .2615 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 02D .2615 DETERMINATION OF LEAK TIGHTNESS AND VAPOR LEAKS**

4 (a) ~~Leak Testing-Detection Procedures.~~ One of the following test methods from the EPA document "Control of
5 Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection System," EPA-450/2-78-051,
6 published by the U.S. ~~Environmental Protection~~ Environmental Protection Agency, December 1978, shall be used to
7 determine compliance with ~~Rule .0932-15A NCAC 02D .0932~~ Gasoline ~~Truck Cargo~~ Tanks And Vapor Collector
8 ~~Systems of this Section-Systems:~~

9 (1) The gasoline vapor leak detection procedure by combustible gas detector described in Appendix B
10 ~~of to~~ EPA-450/2-78-051 shall be used to determine leakage from gasoline ~~truck cargo~~ tanks and
11 vapor control systems.

12 (2) The leak detection procedure for bottom-loaded ~~truck cargo~~ tanks by bag capture method described
13 in Appendix C ~~of to~~ EPA-450/2-78-051 shall be used to determine the leak tightness of ~~truck cargo~~
14 tanks during bottom loading.

15 (b) ~~Annual-Certification, Testing.~~ The pressure-vacuum test procedures for leak tightness of ~~truck cargo~~ tanks
16 described in Method 27 of Appendix A ~~of to~~ 40 CFR Part 60 ~~or 49 CFR Part 180.407~~ shall be used to determine the
17 leak tightness of gasoline ~~truck cargo~~ tanks in use and equipped with vapor collection equipment. Method 27 of
18 Appendix A ~~of to~~ 40 CFR Part 60 is changed ~~for fugitive emissions leak prevention~~ to read:

19 (1) 8.2.1.2 "Connect static electrical ground connections to tank."

20 (2) 8.2.1.3 "Attach test coupling to vapor return line."

21 (3) 16.0 No alternative procedure is applicable.

22 (c) Copies of Appendix B and C of the EPA document, "Control of Volatile Organic Compound Leaks from Gasoline
23 Tank Trucks and Vapor Collection System," EPA-450/2-78-051, cited in this Rule, are hereby incorporated with
24 subsequent amendments and editions by reference and are available on the Division's Website
25 ~~http://daq.state.nc.us/enf/source-test.~~ http://deq.nc.gov/about/divisions/air-quality/air-quality-enforcement/emission-
26 measurement.

27
28 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

29 *Eff. June 1, 2008-2008;*

30 *Readopted Eff.*