SUBCHAPTER 2D - AIR POLLUTION CONTROL REQUIREMENTS
SECTION 2D.0500 - EMISSION CONTROL STANDARDS

.0501 COMPLIANCE WITH EMISSION CONTROL STANDARDS

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

(b) In determining compliance with emission control standards, means shall be provided by the owner to allow periodic sampling and measuring of emission rates, including necessary ports, scaffolding and power to operate sampling equipment; and upon the request of the Division of Environmental Management, data on rates of emissions shall be supplied by the owner.

(c) Testing to determine compliance shall be in accordance with the following procedures, except as may be otherwise required in Rules .0524, .0606, .1110, or .1111 of this Subchapter.

(1) Method 1 of Appendix A of 40 CFR Part 60 shall be used to select a suitable site and the appropriate number of test points for the following situations:

(A) particulate testing,

(B) velocity and volume flow rate measurements,

(C) testing for acid mist or other pollutants which occur in liquid droplet form,

(D) any sampling for which velocity and volume flow rate measurements are necessary for computing final test results, and

(E) any sampling which involves a sampling method which specifies isokinetic sampling. (Isokinetic sampling is sampling in which the velocity of the gas at the point of entry into the sampling nozzle is equal to the velocity adjacent to the nozzle.)

Method 1 shall be applied as written with the following clarifications: Testing installations with multiple breechings can be accomplished by testing the multiple breechings individually or by testing the discharge stack(s) to which the multiple breechings exhaust. If the multiple breechings are individually tested, than Method 1 shall be applied to each breeching individually. The Director or his designee may approve a test when test ports in a duct are located less than two diameters downstream from any disturbance (fan, elbow, change in diameter, or any feature that may disturb the gas flow) or one half diameter up stream from any disturbance, if the tester demonstrates to the Director, or his designee, that locating test ports beyond these distances are impossible because the duct cannot be modified to meet the specifications of Method 1 testing at an alternative location is not feasible.

(2) Method 2 of Appendix A of 40 CFR Part 60 shall be applied as written and used concurrently with any test method in which velocity and/or volume flow rate measurements are required.

(3) Sampling procedures for determining compliance with particulate emission control standards shall be in accordance with Method 5 of Appendix A of 40 CFR Part 60. Method 17 of Appendix A of 40 CFR Part 60 may be used instead of Method 5 provided that the stack gas temperature does not exceed 320^{o} F. The minimum time per test point for particulate testing shall be two minutes and the minimum time per run shall be one hour. The sample gas drawn during each test run shall be at least 30 cubic feet. A number of sources are known to emit organic material (oil, pitch, plasticizers, etc.) which exist as finely divided liquid droplets at ambient conditions. These materials cannot be satisfactorily collected by means of the above Method 5. In these cases the commission will reserve the option to require the use of Method 5 as proposed on August 17, 1971, in the Federal Register, Volume 36, Number 159.

(4) The procedures for determining compliance with sulfur dioxide emission control standards for fuel burning sources may be either by determining sulfur content through fuel analysis or by stack sampling. Combustion sources choosing to demonstrate compliance through stack sampling shall follow

procedures described in Method 6 of Appendix A of 40 CFR Part 60. When Method 6 of Appendix A of 40 CFR Part 60 is used to determine compliance, compliance shall be determined by averaging six 20- minute samples taken over such a period of time that no more than 20 minutes elapses between any two consecutive samples. If a source chooses to demonstrate compliance by analysis of sulfur in fuel, sampling, preparation and analysis of fuels shall be in accordance with the following American Society of Testing Materials (ASTM) methods:

(A) Coal

(i) Sampling

(I) Sampling Location. A source shall collect the coal from a location in the handling or processing system that provides a sample representative of the fuel bunkered or burned during a boiler operating day. For the purpose of this method, a fuel lot size is defined as the weight of coal bunkered or consumed during each boiler operating day. For reporting and calculation purposes, the gross sample shall be identified with the calendar day on which sampling began. The Director may approve alternate definitions of fuel sizes if the alternative will provide a more representative sample.

(II) Sample Increment Collection. A source shall use a coal sampling procedure that meets the requirements of ASTM D 2234

Type I, condition A, B, C and systematic spacing for collection of sample increments. All requirements and restrictions regarding increment distribution and sampling device constraints shall be observed.

(III) Gross Samples. A source shall use ASTM D 2234.7.1.2. Table 2 except as provided in 7.1.5.2 to determine the number and weight of increments (composite or gross samples).

(i) Preparation. A source shall use ASTM D 2013 for sample preparation from a composite or gross sample.

(ii) Gross Caloric Value (GVC). A source shall use ASTM D 2234.1.1.2 Table 2 except as provided in

7.1.5.2. to determine the number and weight of increments (composite or gross samples).

(iii) Moisture Contest. A source shall use ASTM D 3173 to determine moisture from a composite or gross sample.

(iv) Sulfur Content. A source shall use ASTM D 3177 or D 4239 to determine the percent sulfur on a dry basis from a composite or gross sample.

(B) Oil

(i) Sampling--A sample shall be collected at the pipeline inlet to the fuel burning unit after sufficient fuel has been drained from the line to remove all fuel that may have been standing in the line;

(ii) Heat of Combustion (BTU)--ASTM Method D 240 or D 2015;

(iii) Sulfur Content--ASTM Method D 129 or D 1552. The sulfur content and BTU content of the fuel shall be reported on a dry basis. When the test methods described in Parts (A) or (B) of this Subparagraph are used to demonstrate that the ambient air quality standards for sulfur dioxide are being protected, the sulfur content shall be determined at least once per year from a composite of at least three or 24 samples taken at equal time intervals from the fuel being burned over a three-hour or 24-hour period, respectively, whichever is the time period for which the ambient standard is most likely to be exceeded; this requirement shall not apply to sources that are only using fuel analysis in place of continuous monitoring to meet the requirements of Section 0.600 of this Subchapter.

(5) Sulfuric acid manufacturing plants and spodumene ore roasting plants will demonstrate compliance with Regulation .0517 and

.0527, respectively, of this Section through the use of Method 8 of

Appendix A of 40 CFR Part 60. Compliance shall be determined by averaging emissions measured by three one-hour tests.

(6) All other industrial processes not covered under Subparagraph (5) of this Paragraph emitting sulfur dioxide shall demonstrate compliance by sampling procedures described in Method 6 of

Appendix A of 40 CFR Part 60. Compliance shall be determined by averaging six 20-minute samples taken over such a period of time that no more than 20 minutes elapses between any two consecutive samples.

(7) Sampling procedures to demonstrate compliance with emission standards for nitrogen oxides shall be in accordance with the procedures set forth in Method 7 of Appendix A of 40 CFR Part 60.

(8) Method 9 of Appendix A of 40 CFR 60 shall be used when opacity is determined by visual observation.

(9) Notwithstanding the stated applicability to new source performance standards or primary aluminum plants, the procedures to be used to determine fluoride emissions are:

(A) for sampling emissions from stacks, Method 13A or 13B of Appendix A of 40 CFR Part 60,

(B) for sampling emissions from roof monitors not employing stacks or pollutant collection systems, Method 14 of Appendix A of 40 CFR Part 60, and

(C) for sampling emissions from roof monitors not employing stacks but equipped with pollutant collection systems, the procedure under 40 CFR 60.8(b), except that the Director of the Division of Environmental Management shall be substituted for the administrator.

(10) Emissions of total reduced sulfur shall be measured by the test procedure described in Method 16 of Appendix A of 40 CFR Part 60 or Method 16A of Appendix A of 40 CFR Part 60.

(11) Emissions of mercury shall be measured by the test procedure described in method 101 or 102 of Appendix B of 40 CFR Part 61.

(12) Each test (excluding fuel samples) shall consist of three repetitions or runs of the applicable test method. For the purpose of determining compliance with an applicable emission standard the average of results of all repetitions shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operators control, and there is no way to obtain another sample, then compliance may be determined using the arithmetic average of the results of the two other runs.

(13) In conjunction with performing certain test methods prescribed in this regulation the determination of the fraction of carbon dioxide, oxygen, carbon monoxide and nitrogen in the gas being sampled is necessary to determine the molecular weight of the gas being sampled. Collecting a sample for this purpose shall be done in accordance with Method 3 of Appendix A of 40 CFR Part 60:

(A) The grab sample technique may also be used with instruments such as the Bacharach Fyrite (trade name) with the following restrictions:

(i) Instruments such as the Bacharach Fyrite (trade name) may only be used for the measurement of carbon dioxide

(ii) Repeated samples shall be taken during the emission test run to account for variations in the carbon dioxide concentration. No less than four samples taken during a one-hour run, but as many as necessary shall be taken to produce a reliable average.

(iii) The total concentration of gases other than carbon dioxide, oxygen and nitrogen shall be less than one percent.

(B) For fuel burning sources, concentrations of oxygen and nitrogen may be calculated from combustion relations for various fuels.

(14) For those processes for which the allowable emission rate is determined by the production rate, provisions shall be made for controlling and measuring the production rate. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate or a lesser rate if specified by the Director or his delegate. The individual conducting the emission test shall be responsible for including with his test results, data which accurately represents the production rate during the test.

(15) Emission rates for wood or fuel burning sources which are expressed in units of pounds per

million BTU shall be determined by the "Oxygen Based F Factor Procedure" described in 40 CFR Part 60, Appendix A, Method 19, Section 5. Other procedures described in Method 19 may be used if appropriate. To provide data of sufficient accuracy to use with the F-factor methods, an integrated (bag) sample shall be taken for the duration of each test run. In the case of simultaneous testing of multiple ducts, there shall be a separate bag for each sampling train. The bag sample shall be analyzed with an Orsat analyzer in accordance with method 3 of Appendix A of 40 CFR Part 60. (The number of analyses and the tolerance between analyses are specified in Method 3). The specifications indicated in Method 3 for the construction and operation of the bag sampling apparatus shall be followed.

(16) Particulate testing on steam generators that utilize soot blowing as a routine means for cleaning heat transfer surfaces shall be conducted so that the contribution of the soot blowing is represented as follows:

(A) If the soot blowing periods are expected to represent less than 50 percent of the total particulate emissions, one of the test runs shall include a soot blowing cycle.

(B) If the soot blowing periods are expected to represent more than 50 percent of the total particulate emissions then two of the test runs shall each include a soot blowing cycle.

Under no circumstances shall all three test runs include soot blowing. The average emission rate of particulate matter is calculated by the equation:

$$E_{avg} = E_S S \frac{(A+B)}{A R} + E_N \left(\frac{R-S}{R} - \frac{BS)}{A R} \right)$$

E_{avg} equals the average emission rate in pounds per million Btu for daily operating time. E_S equal the average emission rate in pounds per million Btu of sample(s) containing soot blowing. E_N equals the average emission rate in pounds per million Btu of sample(s) with no soot blowing. A equals hours of soot blowing during sample(s). B equals hour without soot blowing during sample(s) containing soot blowing. R equals average hours of operation per 24 hours. S equals average hours of soot blowing per 24 hours. If large changes in boiler load or stack flow rate occur during soot blowing, other methods of prorating the emission rate may be considered more appropriate; for these tests the Director or his designee may approve an alternate method of prorating.

(17) Emissions of volatile organic compounds shall be measure by the appropriate test procedure in Section .0900 of this Subchapter.

(18) Upon prior approval by the director or his delegate, test procedures different from those described in this Regulation may be used if they will provide equivalent or more reliable results. Furthermore, the Director or his delegate may prescribe alternate test procedures on an individual basis when he considers that the action is necessary to secure reliable test data. In the case of sources for which no test method is named, the Director or his delegate may prescribe or approve methods on an individual basis.

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

(e) In addition to any control or manner of operation necessary to meet emission standards in this Section, any source of air pollution shall be operated with such controls or in such a manner that the source shall not cause the ambient air quality standards of Section .0400 of this Subchapter to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this Section are required to prevent violation of the ambient air quality standards, the permit shall contain a condition requiring these controls.

(f) The Bubble Concept. A facility with multiple emission sources or multiple facilities within the same area may choose to met the total emission limitation for a given pollutant through a different mix of controls than that required by the regulations in this Section or Section .0900 of this Subchapter.

(1) In order for this mix of alternative controls to be permitted the director shall determine that the following conditions are met:

(A) Regulations .0524, .0525, .0531 and .0532 of this Section, the federal New Source Performance Standards (NSPS), the federal National Emission Standards for Hazardous Air Pollutants (NESHAPS), regulations established pursuant to Section 111(d) of the federal Clean Air Act, or State or federal Prevention of Significant Deterioration (PSD) requirements apply, shall have emissions no larger tan if there were not an alternative mix of controls;

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

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

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

(2) The owner(s) or operator(s) of the facility (facilities) shall demonstrate to the satisfaction of the Director that the alternative mix of controls is equivalent in total allowed emissions, reliability, enforceability, and environmental impact to the aggregate of the otherwise applicable individual emission standards; and

(A) that the alternative mix approach does not interfere with attainment and maintenance of ambient air quality standards and does not interfere with the PSD program; this demonstration shall include modeled calculations of the amount, if any, of PSD increment consumed or created;

(B) that the alternative mix approach conforms with reasonable further progress requirements in any nonattainment area;

(C) that the emissions under the alternative mix approach are in fact quantifiable, and trades among them are even;

(D) that the pollutants controlled under the alternative mix approach are of the same criteria pollutant categories, except that emissions of some criteria pollutants used in alternative emission control strategies are subject to the limitations as defined in 44 FR 7l784 (December 11, 1979), Subdivision D.1.c.ii. The Federal Register referenced in this Part is hereby incorporated by reference and does not include subsequent amendments or editions.

(1) The emission rate limitations or control techniques of each source within the facility (facilities) subjected to the alternative mix of controls shall be specified in the facility's (facilities') permit(s).

(2) Compliance schedules and enforcement actions shall not be affected because an application for an alternative mix of controls is being prepared or is being reviewed.

(3) The Director may waive or reduce requirements in this Paragraph up to the extent allowed by the Emissions Trading Policy Statement published in the Federal Register of April 7, 1982, pages 15076-15086, provided that the analysis required by Paragraph (g) of this Rule shall support any waiver or reduction of requirements. The Federal Register referenced in this Paragraph is hereby incorporated by reference and does not include subsequent amendments or editions.

(g) In a permit application for an alternative mix of controls under Paragraph (f) of this Rule, the owner or operator of a facility shall demonstrate to the satisfaction of the Director that the proposal is equivalent to the existing requirements of the SIP in total allowed emissions, enforceability, reliability, and environmental impact. The Director shall provide for public notice with an opportunity for a request for public hearing following the procedures under 15A NCAC 2Q .0300 or .0500, as applicable. If and when a permit containing these conditions is issued, it shall become a part of the state implementation plan (SIP) as an appendix available for inspection at the department=s regional offices. Until the U.S. Environmental Protection Agency (EPA) approves the SIP revision

embodying the permit containing an alternative mix if controls, the facility shall continue to meet the otherwise applicable existing SIP requirements. The revision shall be approved by EPA on the basis of the revision=s consistency with EPA's "Policy for Alternative Emission Reduction Options Within State Implementation Plans" as promulgated in the Federal Register of December 11, 1989, pages 71780-71788, and subsequent rulings.

(h) The referenced ASTM test methods in this Rule are hereby incorporated by reference and include subsequent amendments and editions. Copies of referenced ASTM test methods or Federal Registers may be obtained from the Division of Environment Management, P.O. box 29535, Raleigh, North Carolina 27626-0535 at a cost of ten cents ($0.10) per page.

History Note: Temporary Amendment Eff March 8, 1994 for a period of 180 days or until the permanent rule is effective, whichever is sooner;
Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);

Eff. February 1, 1976;
Amended Eff. April 1, 1999; July 1, 1996; February 1, 1995; July 1, 1994; August 1, 1991.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Mar 22, 1977	Apr 13, 1981	46 FR 21599
3rd Revision	Feb 14, 1978	Sep 29, 1978	43 FR 44842
4th Revision	May 02, 1980	Apr 13, 1981	46 FR 21599
5th Revision	Apr 16, 1982	Jul 26, 1982	47 FR 32118
6th Revision	Sep 24, 1982	Jul 08, 1983	48 FR 31401
7th Revision	Jan 24, 1983	Oct 11, 1985	50 FR 41501
8th Revision	Apr 17, 1984	Oct 11, 1985	50 FR 41501
9th Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
10th Revision	Apr 15, 1985	Nov 19, 1986	51 FR 41786
11th Revision	Feb 25, 1986	Apr 17, 1987	52 FR 12523
12th Revision	Oct 14, 1986	Apr 03, 1987	52 FR 10751
13th Revision	Feb 11, 1987	Dec 15, 1987	52 FR 47566
14th Revision	Apr 14, 1987	Feb 29, 1988	53 FR 5974
15th Revision	Dec 15, 1987	Jun 09, 1988	53 FR 21638
16th Revision	May 02, 1988	Jan 16, 1990	55 FR 1419
17th Revision	Jul 14, 1989	Mar 12, 1990	55 FR 9125
18th Revision	Apr 16, 2001	Aug 08, 2002	67 FR 51461

.0502 PURPOSE

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

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. March 1, 1981.

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2nd Revision	Apr 16, 1981	Jul 26, 1982	47 FR 32118

.0503 PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

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

(1) "Functionally dependent" means that structures, buildings or equipment are interconnected through common process streams, supply lines, flues, or stacks.

(2) "Indirect heat exchanger" means any equipment used for the alteration o f the temperature of one fluid by the use of another fluid in which the two fluids are separated by an impervious surface such that there is no mixing of the two fluids.

(3) "Plant site" means any single or collection of structures, buildings, facilities, equipment, installations, or operations which:

(i) are located on one or more adjacent properties,

(ii) are under common legal control, and

(iii) are functionally dependent in their operations.

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

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

Maximum Heat Input In Million Btu/Hour	Allowable Emission Limit For Particulate Matter in Lb/Million Btu
Up to and Including 10	0.60
100	0.33
1,000	0.18
10,000 and Greater	0.10

For a heat input between any two consecutive heat inputs stated in the preceding table, the allowable emissions of particulate matter shall be calculated by the equation E = 1.090 times Q to the -0.2594 power. E= allowable emission limit for particulate matter in lbs./million Btu. and Q = heat input in Million Btu/hour.

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

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

burning indirect heat exchangers constructed or permitted after February 1, 1983, shall not change the allowable emission limit of any fuel burning indirect heat exchanger whose allowable emission limit has previously been set. The removal of a fuel burning indirect heat exchanger shall not change the allowable emission limit of any fuel burning indirect heat exchanger whose allowable emission limit has previously been established. However, for any fuel burning indirect heat exchanger constructed after, or in conjunction with, the removal of another fuel burning indirect heat exchanger at the plant site, the maximum heat input of the removed fuel burning indirect hear exchanger shall not longer be considered in the determination of the allowable emission limit of any fuel burning indirect heat exchanger constructed after or in conjunction with the removal. For the purposes of this Paragraph, refuse not burned as a fuel and wood shall be considered a fuel. For residential facilities or institutions (such as military and educational) whose primary fuel burning capacity is for comfort heat, only those burning indirect heat exchangers located in the same power plant or building or otherwise physically interconnected (such as common flues, steam, or power distribution line) shall be used to determine the total heat input.

(f)The emission limit for fuel burning equipment that burns both wood and other fuels in combination or for wood and other fuel burning equipment that is operated by the equation Ec=(Ew) (Qw) + (Eo) (Qo))/Qt.

(1) Ec=the emission limit for combination or combined emission sources(s) in lb/million Btu.

(2) Ew=plant site emission limit for wood only as determined by Regulation .0504 of this Section in lb/million Btu.

(3) Eo=the plant site emission limit for other fuels only as determined by Paragraphs (a), (b) and (c) of this Regulation in lb/million Btu.

(4) Qw=the actual wood heat input to the combination or combined emission sources in Btu/hr.

(5) Qo=the actual other fuels heat input to the combination or combined emission sources in Btu/hr.

(6) Qt=Qw+Qo and is the actual total heat input to combination or combined emission sources in Btu/hr.

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3rd Revision	Apr 15, 1985	Nov 19, 1986	51 FR 41786
4th Revision	Apr 13, 1999	Oct 22, 2002	67 FR 64989

.0504 PARTICULATES FROM WOOD BURNING INDIRECT HEAT EXCHANGERS

(a) For the purpose of this Rule the following definitions shall apply:
(1) "Functionally dependent" means that structures, buildings or equipment are interconnected through common process streams, supply lines, flues, or stacks.
(2) "Indirect heat exchanger" means any equipment used for the alteration of the temperature of one fluid by the use of another fluid in which the two fluids are separated by an impervious surface such that there is no mixing of the two fluids.
(3) "Plant site" means any single or collection of structures, buildings, facilities, equipment, installations, or operations which:
(A) are located on one or more adjacent properties,
(B) are under common legal control, and
(C) are functionally dependent in their operations.
(b) The definition contained in Subparagraph (a)(3) of this Rule does not affect the calculation of the allowable emission rate of any indirect heat exchanger permitted prior to April 1, 1999.
(c) Emissions of particulate matter from the combustion of wood shall not exceed:

Allowable Emission Limit

Maximum Heat Input In Million Btu/Hour	For Particulate Matter In Lb/Million Btu
Up to and Including 10	0.70
100	0.41
1,000	0.25
10,000 and Greater	0.15

For a heat input between any two consecutive heat inputs stated in the preceding table, the allowable emissions of particulate matter shall be calculated by the equation
E = 1.1698 times Q to the -0.2230 power. E = allowable emission limit for particulate matter in lb/Million Btu. Q = Maximum heat input in million Btu/Hour.
(d) This Rule applies to installations in which wood is burned for the primary purpose of producing heat or power by indirect heat transfer.
(e) For the purpose of this Rule, the heat content of wood shall be 8,000 Btu per pound (dry-weight basis). The total heat input of all wood burning indirect heat exchangers at a plant site in operation, under construction, or with a permit shall be used to determine the allowable emission limit of a wood burning indirect heat exchanger. Wood burning indirect heat exchangers constructed or permitted after February 1, 1983, shall not change the allowable emission limit of any wood burning indirect heat exchanger whose allowable emission limit has previously been set.
(f) The emission limit for fuel burning equipment that burns wood and other fuels in combination or for wood and other fuel burning equipment that is operated such that emissions rate measured on a combined basis shall be calculated by the procedure described in Paragraph (f) of Regulation .0503 of this Section.
History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. July 1, 2002; April 1, 1999; June 1, 1985;

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3rd Revision	Apr 15, 1985	Nov 19, 1986	51 FR 41786
4th Revision	Apr 13, 1999	Oct 22, 2002	67 FR 64990
4th Revision	Aug 07, 2002	Dec 27, 2002	67 FR 78980

.0505 CONTROL OF PARTICULATES FROM INCINERATORS

(a) The emission of particulate matter from any stack or chimney of an incinerator shall not exceed:

Refuse Charged Lb/Hour	Allowable Emission for Particulate Matter In Lb/Hour
0 to 100	0.2
200	0.4
500	1.0
1,000	2.0
2,000 and Above	4.0

For a refuse charge between any two (2) consecutive rates stated in the preceding table, the allowable emission rate for particulate matter shall be calculated by the equation E = 0.002P. E = allowable emission rate for particulate matter in Lbs./Hour. P = refuse charged in Lb/Hour.

(b) Instead of meeting the standards in Paragraph (a) of this Regulation, the owner or operator of an incinerator may choose to limit particulate emissions from the incinerator to 0.08 grains per dry standard cubic foot corrected to 12 percent carbon dioxide. In order to choose this option, the owner or operator of the incinerator shall demonstrate that the particulate ambient air quality standards will not be violated. To correct to 12 percent carbon dioxide, the measured concentration of the particulate matter is multiplied by 12 and divided by the measured percent carbon dioxide.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. July 1, 1987; June 1, 1986; February 1, 1983.

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.0506 PARTICULATES FROM HOT MIX ASPHALT PLANTS

(A) The allowable emission rate for particulate matter resulting from the operation of a hot mix asphalt plant shall not exceed the level calculated with the equation $E = 4.9445\ P^{0.4376}$ calculated to two significant figures where "E" equals the maximum allowable emission rate for particulate matter in pounds per Hour and "P" equals maximum process rate in Tons per Hour. The allowable emission rate shall be 60.0 pounds per hour for process weights equal to or greater than 300 tons per hour.
(b) All hot mix asphalt plants shall be equipped with a fugitive process dust control system for the drying, conveying, classifying, and mixing equipment which shall be operated and maintained in such a manner as to reduce to a minimum the emission of particulate matter from any point other than the stack outlet. Emissions from this equipment shall be controlled such that the applicable opacity standards in Rule .0521 or .0524 of this Section are not exceeded.
(c) Fugitive non-process dust emissions shall be controlled by Rule .0540 of this Section.

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

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2nd revision	Dec 17, 1984	Dec 19,1986	51 FR 45468
3rd Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213

.0507 PARTICULATES FROM CHEMICAL FERTILIZER MANUFACTURING PLANTS

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

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff April 1, 2003; July 1, 1998; January 1, 1985.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
3rd Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213
4th Revision	Apr 04, 2003	Sep 17, 2003	68 FR 54362

.0508 PARTICULATES FROM PULP AND PAPER MILLS

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

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

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

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

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

History Note: Authority G.S. 143-215.3 (a)(1); 143-215.107 (a)(5);
Eff. February 1, 1976; Amended Eff. July 1, 1998; August 1,
1987; April 1, 1986; January 1, 1985; May 30, 1978.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Apr 19, 1978	May 15, 1981	46 FR 26769
3rd Revision	Dec 14, 1984	Dec 19, 1986	51 FR 45468
4th Revision	Feb 25, 1986	Apr 17, 1987	52 FR 12523
5th Revision	Feb 11, 1987	Dec 15, 1987	52 FR 47566
6th Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213

.0509 PARTICULATES FROM MICA OR FELDSPAR PROCESSING PLANTS

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

(b) Fugitive non-process dust emissions shall be controlled by rule .0540 of the Section.

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

(1) from crushers with wet suppression, and

(2) from conveyers, screens, and transfer points, such that the applicable opacity standards in Rule .0521 and .0524, of this Section are not exceeded.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. April 1, 2003; July 1, 1998; April 1, 1986; January 1, 1985.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Dec 17, 1986	Dec 19, 1986	51 FR 45468
3rd Revision	Feb 25, 1986	Apr 17, 1987	52 FR 12523
4th Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213
5th Revision	Apr 04, 2003	Sep 17, 2003	68 FR 54362

.0510 PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS

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

(b) Fugitive non-process dust emissions from sand, gravel, or crushed stone operations shall be controlled by Rule .0540 of this Section.

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

(1) from crushers with wet suppression, and

(2) from conveyers, screens, and transfer points.

such that the applicable opacity standards in Rule .0521 or .0524, of this Section are not exceeded.

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

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
3rd Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213

.0511 PARTICULATES FROM LIGHTWEIGHT AGGREGATE

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

(b) Fugitive non-process dust emissions from lightweight aggregate processes subject to this Rule shall be controlled by Rule .0540 of this Section.

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

(1) from crushers with wet suppression, and

(2) from conveyers, screens, and transfer points.

such that the applicable opacity standards in Rule .0521 or .0524, of this Section are not exceeded.

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

History Note: Authority G. S. 143-215.3 (a)(1); 143-215.107 (a)(5); Eff. February 1, 1976; Amended Eff. July 1, 1998; October 1, 1989; January 1, 1985; April 1, 1977.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Mar 22, 1977	Dec 07, 1982	47 FR 54935
3rd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
4th Revision	Jul 14, 1989	Mar 12, 1990	55 FR 9125
5th Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213

.0512 PARTICULATES FROM WOOD PRODUCTS FINISHING PLANTS

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

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. November 1, 1984.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468

.0513 PARTICULATES FROM PORTLAND CEMENT PLANTS

(a) Particulate matter from any Portland cement kiln shall:
(1) be reduced by at least 99.7 percent by weight before being discharged to the atmosphere: the 99.7 percent reduction shall by air pollution control devices: and
(2) not exceed 0.327 pounds per barrel.
(b) The emissions of particulate matter from any stacks, vent or outlets from all processes except Portland cement kilns shall be controlled by Rule .0515 of this section.

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

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
3rd Revision	July 29, 1998	Nov 10, 1999	64 FR 61213

.0514 PARTICULATES FROM FERROUS JOBBING FOUNDRIES

Particulate emissions from any ferrous jobbing foundry cupola existing before January 1, 1972 shall not exceed:

Process Weight In Lb/Hour	Maximum Allowable Emission Rate For Particulate In 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

Any foundry existing before January 2, 1972, having a capacity greater than that 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.

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.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
3rd Revision	Feb 25, 1986	Apr 17, 1987	52 FR 12523
4th Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213

.0515 PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

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

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

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. February 1, 1976;
Amended Eff. April 1, 2003; July 1, 1996; February 1, 1995, October 1, 1989; January 1, 1985; April 1, 1977.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Nov 01, 1976	Apr 18, 1977	42 FR 20132
3rd Revision	Dec 12, 1984	Dec 19, 1986	51 FR 45468
4th Revision	Jul 29, 1998	Nov 10, 1999	64 FR 61213
5th Revision	Apr 04, 2003	Sep 17, 2003	68 FR 54362

.0516 SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

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

(b) A source subject to an emission standard for sulfur dioxide in Rule .0524, .0527, .1110, .1111, .1205, .1206, or .1210 of this Subchapter shall meet the standard in that particular rule instead of the standard in Paragraph (a) of this Rule.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. October 1, 1989; January 1, 1985; April 1, 1977.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Mar 22, 1977	Dec 07, 1982	47 FR 54934
3rd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
4th Revision	Jul 14, 1989	Mar 12, 1990	55 FR 9125
5th Revision	Apr 04, 2003	Sep 17, 2003	68 FR 54362

.0517 SO2 EMISSIONS FROM PLANTS PRODUCING SULFURIC ACID

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

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

(2) 0.5 pounds of acid mist (expressed as sulfuric acid) per ton of sulfuric acid produced.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. November 1, 1984

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Jul 18, 1986	Nov 19, 1986	51 FR 41788
3rd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468

.0519 CONTROL OF NITROGEN DIOXIDE AND NITROGEN OXIDE EMISSIONS

(a) The emissions of Nitrogen dioxide shall not exceed:
(1) 0.6 pounds per million BTU of heat input per hour from any oil or gas fired boiler with a capacity of 250 million BTU per hour or more,
(2) 1.3 pounds per million BTU of heat input per hour from any coal- fired boiler with a capacity of 250 million btu per hour or more;
(3) 5.8 pounds per ton of acid produced from any nitric acid manufacturing plants,
(4) 5.8 pounds per ton of acid produced from any sulfuric acid manufacturing plant.
(b) The emissions of nitrogen oxides shall not exceed:
(1) 0.8 pounds per million BTU of heat input from any oil or gas fired boiler with a capacity of 250 million BTU per hour or more.
(2) 1.8 pounds per million of BTU of heat input from any coal-fired boiler with a capacity of 250 million BTU per hour or more.
(c) The emission limit for a boiler that burns both coal and oil or gas in combination shall be calculated by the equation $E = [(Ec) (Qc) + (Eo) (Qo)] / Qt$.
(1) E = the emission limit for combination in pounds per million BTU.
(2) Ec = emission limit for coal only as determined by Paragraph
(b) of this Regulation in pounds per million BTU.
(3) Eo = emission limit for oil or gas determined by Paragraph
(b) of this Regulation in pounds per million BTU.
(4) Qc = the actual coal heat input to the combination in BTU per hour.
(5) Qo = the actual oil and gas heat input to the combination in BTU per hour.
(6) Qt = Qc + Qo and is the total heat input to the combination in BTU per hour.
History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976; Amended Eff. October 1, 1989; January 1, 1985.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834
2nd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
3rd Revision	Jul 14, 1989	Mar 12, 1990	55 FR 9125
4th Revision	Jul 01, 1996	Aug 01, 1997	62 FR 41277
5th Revision	Dec 14, 2004	Aug 22, 2008	73 FR 49613

2D .0521 CONTROL OF VISIBLE EMISSIONS

(a) Purpose. The intent of this Rule is to prevent, abate, and control emissions generated from fuel burning operations and industrial processes where an emission can be reasonably expected to occur, except during startups made according to procedures approved under Rule .0535 of this Section.

(b) Scope. This Rule shall apply to all fuel burning sources and to other processes that may have a visible emission. However, sources subject to a visible emission standard for this pollutant in Rule .0508, .0524, .1110 or .1111 of this Subchapter shall meet that standard instead of the standard contained in this Rule.

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

(1) No six-minute period exceeds 90 percent opacity;

(2) No more than one six-minute period exceeds 40 percent opacity in any hour; and

(3) No more than four six-minute periods exceed 40 percent opacity in any 24-hour period.

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

(1) No six-minute period exceeds 87 percent opacity;

(2) No more than one six-minute period exceeds 20 percent opacity in any hour; and

(3) No more than four six-minute periods exceed 20 percent opacity in any 24-hour period.

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

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

(1) The owner or operator of the source demonstrates compliance with applicable particulate mass emissions standards; and

(2) The owner or operator of the source submits necessary data to show that emissions up to those allowed by Paragraph (c) of this Rule will not violate any national ambient air quality standard.

The burden of proving these conditions shall be on the owner or operator of the source and shall be approached in the following manner. The owner or operator of a source seeking an exception shall apply to the Director requesting this modification in its permit. The applicant shall submit the results of a source test within 90 days of application. Source testing shall be by the appropriate procedure as designated by rules in this Subchapter. During this 90-day period the applicant shall submit data necessary to show that emissions of up to those allowed by Paragraph (c) of this Rule will not contravene ambient air quality standards. This evidence shall include, as a minimum, an inventory of past and projected emissions from the facility. In its review of ambient air quality, the Division may require additional information that it considers necessary to assess the resulting ambient air quality. If the applicant can thus show that it will be in compliance both with particulate mass emissions standards and ambient air quality standards, the Director shall modify the permit to allow emissions up to those allowed by Paragraph (c) of this Rule.

(g) For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS), compliance with the numerical opacity limits in this Rule shall be determined as follows:

(1) No more than four six-minute periods shall exceed the opacity standard in any one day; and

(2) The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.

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

History Note: Statuatory Authority G. S. 143-215.3 (a) (1); 143-215.107 (a) (5);
Eff. February 1, 1976.
Amended Eff. July 1, 1998; July 1, 1996; December 1, 1992;
August 1, 1987, January 1, 1985.

	Date Submitted to EPA	Date Approved by EPA	Final Register
Original Reg	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	June 3, 1986	51 FR 19834
2nd Revision	June 24, 1976	Apr 18, 1977	42 FR 20132
3rd Revision	Apr 16, 1978	May 15, 1981	46 FR 26769
4th Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
5th Revision	Feb 11, 1987	Dec 15, 1987	52 FR 47566
6th Revision	Mar 03, 1993	Aug 15, 1994	59 FR 41740
7th Revision	July 29, 1998	Nov 10, 1999	64 FR 61313
8th Revision	Apr 4, 2003	Sep 17, 2003	68 FR 54362
9th Revision	Dec 14, 2004	Oct 25, 2005	70 FR 61556

.0522 CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

(a) Purpose. The purpose of this Regulation is to provide for the control and prohibition of odorous emissions.
(b) Scope. This Regulation shall apply to all operations that produce odorous emissions.
(c) A person shall not cause, allow, or permit any plant to be operated without employing suitable measures for the control of odorous emissions including wet scrubbers, incinerators, or other devices approved by the commission.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. February 1, 1976.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jan 27, 1972	May 31, 1972	37 FR 10884
1st Revision	Mar 31, 1976	Jun 03, 1986	51 FR 19834

2D.0523 CONTROL OF CONICAL INCINERATORS

(a) Purpose. The purpose of this Regulation is to set forth the requirements of the commission relating to the use of conical incinerators in the burning of wood and agricultural waste.

(b) Scope. This Regulation shall apply to all conical incinerators which are designed to incinerate wood and agricultural waste.

(c) A person shall not cause, allow or permit the burning of wood or agricultural waste in a conical incinerator without taking reasonable precaution to prevent air pollutants from becoming airborne. As a minimum, each conical incinerator subject to this regulation shall be equipped and maintained with:

(1) an underfire and an overfire forced air system and variable damper which is automatically controlled to ensure the optimum temperature range for the complete combustion of the amount and type of material waste being charged into the incinerator;

(2) a temperature recorder for continuously recording the temperature of the exit gas;

(3) a feed system capable of delivering waste to be burned at a sufficiently uniform rate to prevent the temperature from dropping below 800 degrees Fahrenheit during normal operation, with the exception of one startup and one shutdown per day.

(d) The owner of the conical incinerator shall monitor and report ambient particulate concentrations in accordance with a method and schedule acceptable to the commission.

(e) In no case shall the ambient air quality standards as defined in Section .0400 of this Subchapter be exceeded.

(f) The conical incinerator shall not violate regulation .0521 of this section.

(g) The distance a conical incinerator is located and/or operated from the nearest structure(s) in which people live or work shall be optimized to prevent air quality impact and shall be subject to approval by the commission.

(h) New conical incinerators shall be in compliance with this regulation on start up.

History Note: Statutory Authority G.S. 143-215.3(a)(1);
143-215.107(a)(5);
Eff. February 1, 1976.
Amended Eff. January 1, 1985

THIS IS THE FEDERALLY-APPROVED REGULATION AS OF SEPT 9, 1987
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	Date Submitted to EPA	Date Approved by EPA	Final Federal Register Notice
Original Reg	1973/June 12,1986	Sept 9, 1987	52 FR 33933

.0527 EMISSIONS FROM SPODUMENE ORE ROASTING

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

(1) 9.7 pounds of sulfur dioxide per ton of ore roasted.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. March 15, 1978;
Amended Eff. January 1, 1985; November 1, 1984

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Feb 14, 1978	Sep 29, 1978	43 FR 44843
1st Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468

NOTE: THE STATE REGULATION ALSO REGULATES SULFURIC ACID MIST FROM SPODUMENE ORE ROASTING OPERATIONS. EPA WITHDREW ITS APPROVAL OF THIS PORTION OF THE RULE ON MAY 15, 1981 (46 FR 26769).

.0530 PREVENTION OF SIGNIFICANT DETERIORATION

(a) The purpose of this Regulation is to implement a program for the prevention of significant deterioration of air quality as required by 40 CFR 51.166.
(b) For the purposes of this Rule, the definitions contained in 40 CFR 51.166(b) and 40 CFR 51.301 apply, except the definition of "baseline actual emissions." For the purposes of this Rule:

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

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

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

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

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

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

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

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

(B) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase

that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.

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

(2) In the definition of "net emissions increase," The reasonable period specified in 40 CFR 51.166(b)(3)(ii) is seven years.
(3) The limitation specified in 40 CFR 51.166(b)(15)(ii) does not apply.

(4) Particulate matter PM2.5 significant levels in 40 CFR 51.166(b)(23)(i) are incorporated by reference except as otherwise provided in this Rule. Sulfur dioxide (SO2) and (NOx) nitrogen oxides are precursors to PM2.5 in all attainment and unclassifiable areas. Volatile organic compounds and ammonia are not significant precursors to PM2.5.

(c) All areas of the State are classified as Class II, except that the following areas, which are designated as Class I:
(1) Great Smoky Mountains National Park;
(2) Joyce Kilmer Slickrock National Wilderness Area;
(3) Linville Gorge National Wilderness Area;
(4) Shining Rock National Wilderness Area; and
(5) Swanquarter National Wilderness Area.
(d) Redesignations of areas to Class I or II may be submitted as State proposals to the Administrator of the Environmental Protection Agency (EPA), if the requirements of 40 CFR 51.166(g)(2) are met. Areas may be proposed to be redesignated as Class III if the requirements of 40 CFR 51.166 (g)(3) are met. Redesignations may not, however, be proposed which would violate the restrictions of 40 CFR 51.166(e). Lands within the boundaries of Indian Reservations may be redesignated only by the appropriate Indian Governing Body.
(e) In areas designated as Class I, II, or III, increases in pollutant concentration over the baseline concentration shall be limited to the values set forth in 40 CFR 51.166(c). However, concentration of the pollutant shall not exceed standards set forth in 40 CFR 51.166(d).
(f) Concentrations attributable to the conditions described in 40 CFR 51.166(f)(1) shall be excluded in determining compliance with a maximum allowable increase. However the exclusions referred to in 40 CFR 51.166(f)(1)(i) or (ii) shall be limited to five years as described in 40 CFR 51.166(f)(2).
(g) Major stationary sources and major modifications shall comply with the requirements contained in 40 CFR 51.166(a)(7) and (i) and by extension in 40 CFR 51.166 through (o) and (w). The transition provisions allowed by 40 CFR 52.21(i)(11)(i) and (ii) and (m)(1)(vii) and (viii) are hereby adopted under this Rule. The minimum requirements described in the portions of 40 CFR 51.166 referenced in this paragraph are hereby adopted as the requirements to be used under this Rule, except as otherwise provided in this Rule. Wherever the language of the portions of 40 CFR 51.166 referenced in this paragraph speaks of the "plan," the requirements described therein shall apply to the source to which they pertain, except as otherwise provided in this Rule. Whenever the portions of 40 CFR 51.166 referenced in this paragraph provide that the State plan may exempt or not apply certain requirements in certain circumstances, those exemptions and provisions of nonapplicability are also hereby adopted under this Rule. However, this provision shall not be interpreted so as to limit information that may be requested from the owner or operator by the Director, as specified in 40 CFR 51.166 (n)(2).

(h) New natural gas-fired electrical utility generating units for which cost recovery is sought pursuant to G.S. 62-133.6 shall install best available control technology for NOx and S02, regardless of applicability of the rest of this rule.

(i) For the purposes of this Rule, 40 CFR 51.166(w)(1 O)(iv)(a) reads: "lf the emissions level calculated in accordance with Paragraph (w)(6) of this Section is equal to or greater than 80 percent of the PAL level, the Director shall renew the PAL at the same level." 40 CFR 51.166(w)(10)(iv)(b) is not incorporated by reference.

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

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

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

(m) Volatile organic compounds exempted from coverage in Subparagraph (c)(5) of Regulation .0531 of this Section shall be exempted when calculating source applicability and control requirements under this Rule.

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

(1) that amount of a stack height, not in existence before December 31, 1970, that exceeds good engineering practice, or

(2) any other dispersion technique not implemented before December 31, 1970.

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

(p) Permits may be issued on the basis of innovative control technology as set forth in 40 CFR 51.166(s)(l) if the 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 allowance set forth in 40 CFR 51.166(s)(4).

(q) If a source to which this Regulation applies impacts an area designated Class I by requirements of 40 CFR 51.166(e), notice to EPA shall be provided as set forth in 40 CFR 51.166(p)(l). If the Federal Land Manager presents a demonstration described in 40 CFR 51.166(p)(3) during the public comment period or public hearing to the director and if the director concurs with this demonstration, the permit application shall be denied. Permits may be issued on 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) have been satisfied. Pursuant to 40 CFR 51.166(p)(4), Class I Variances, and this Paragraph, the maximum allowable increases in micrograms per cubic meter over minor source baseline concentration for particulate matter are as follows:

Class I variances – Particulate Matter		
Indicator	Averaging Period	micrograms per cubic meter
PM10	Annual arithmetic mean	17
PM10	24 hour maximum	30

(r) A permit application subject to this Regulation shall be processed in accordance with the procedures and

requirements of 40 CFR 51.166(q). Within 30 days of receipt of the application, applicants shall be notified if the application is complete as to initial information submitted. Commencement of construction before full prevention of significant deterioration approval is obtained constitutes a violation of this Rule.
(s) Approval of an application with regard to the requirements of this Regulation does not relieve the owner or operator of the responsibility to comply with applicable provisions of other regulations of this Subchapter or Subchapter 02Q and any other requirements under local, State, or federal law.
(t) When a source or modification is subject to this Regulation the following procedures apply:

(1) Notwithstanding any other provisions of this paragraph, the Director shall, no later than 60 days after receipt of an administratively complete application, notify the Federal Land Manager with the U.S. Department of Interior and U.S. Department of Agriculture of an application from a source or modification subject to this Rule.

(2) When a source or modification may affect visibility of a Class I area, the Director shall provide written notification to all affected Federal Land Managers within 30 days of receiving the permit application or within 30 days of receiving advance notification of an application. The notification shall be given at least 30 days prior to the publication of notice for public comment on the application. The notification shall include a copy of all information relevant to the permit application, including an analysis provided by the source of the potential impact of the proposed source on visibility.
(3) The Director shall consider any analysis concerning visibility impairment performed by the Federal Land Manager if the analysis is received within 30 days of notification. If the Director finds that the analysis of the Federal Land Manager fails to demonstrate to the Director's satisfaction that an adverse impact on visibility will result in the Class I area, the Director shall follow the public hearing process described in 40 CFR 51.307(a)(3) on the application and include an explanation of the Director's decision or notice as to where the explanation can be obtained.
(4) The Director may require monitoring of visibility in or around any Class I area by the proposed new source or modification when the visibility impact analysis indicates possible visibility impairment.

(u) If the owner or operator of a source is using projected actual emissions to avoid applicability of prevention of significant deterioration requirements, the owner or operator shall notify the Director of the modification before beginning actual construction. The notification shall include:

(1) a description of the project.
(2) identification of sources whose emissions could be affected by the project,
(3) the calculated projected actual emissions and an explanation of how the projected actual emissions were calculated, including identification of emissions excluded by40 CFR 51.166(b)(40)(ii)(c),
(4) the calculated baseline actual emissions and an explanation of how the baseline actual emissions were calculated, and
(5) any netting calculations, if applicable.

If upon reviewing the notification, the Director finds that the project will cause a prevention of significant deterioration evaluation, the Director shall notify the owner or operator of his or her findings. The owner or operator shall not make the modification until a permit has been issued pursuant to this Rule. If a permit revision is not required pursuant to this Rule, the owner or operator shall maintain records of annual emissions in tons per year, on a calendar year basis related to the modifications, for 10 years following resumption of regular operations after the change if the project involves increasing the emissions unit's design capacity or its potential to emit the regulated NSR pollutant: otherwise, these records shall be maintained for five years following resumption of regular operations after the change. The owner or

operator shall submit a report to the Director within 60 days after the end of each year during which these records must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c). The owner or operator shall make the information documented and maintained under this Paragraph available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

(v) Increments. For particulate matter, the maximum allowable increases in micrograms per cubic meter over the baseline concentration for areas classified as Class I, Class II and Class III shall be as follows:

Increments - Particulate Matter				
Indicator	Averaging Period	Class I	Class II	Class III
PM10	Annual arithmetic mean	4	17	34
PM10	24 hour maximum	8	30	60

(w) The references to the Code of Federal Regulations (CFR) in this Rule are incorporated by reference unless a specific reference states otherwise. The version of the CFR incorporated in this Rule is that as of May 16, 2008, at http://www.gpo.gov/fdsys/pkg/FR-2008-05-16/pdf/E8-10768.pdf and does not include any subsequent amendments or editions to the referenced material. The publication may be accessed free of charge.

NOTE: 15 NCAC .0530 incorporates by reference the regulations found at 40 CFR 51.166, with changes, as of June 13, 2007. This EPA action is approving the incorporation by reference with the exception of the phrase ‘‘except ethanol production facilities producing ethanol by natural fermentation under the North American Industry Classification System (NAICS) codes 325193 or 312140,’’ (as amended at 40 CFR 51.166(b)(1)(i)(a), (b)(1)(iii)(t), and (i)(1)(ii)(t).

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3); 143- (a)(5); 143-215.107(a)(7); 143-215.108(b); 150B-14(c);
Eff. June 1, 1981;
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4th Revision	May 02, 1988	Jan 16, 1990	55 FR 1419
5th Revision	Jul 15, 1987	Jun 12, 1990	55 FR 23735
6th Revision	Mar 19, 1997	Oct 15, 1999	64 FR 55831
7th Revision	Mar 16, 2007	Aug 10, 2011	76 FR 49313

8th Revision	Jun 20, 2008	Aug 10, 2011	76 FR 49313
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.0531 SOURCES IN NONATTAINMENT AREAS

(a) For the purpose of this Rule, the definitions contained in 40 CFR 51.165(a)(1) and 40 CFR 51.301 apply, except the definition of "baseline actual emissions." For the purposes of this Rule:

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

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

(i) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
(ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.
(iii) For an existing emission unit (other than an electric utility steam generating unit), the average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply. However, if the State has taken credit in an attainment demonstration or maintenance plan consistent with the requirements of 40 CFR 51.165(a)(3)(ii)(G) for an emission limitation that is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under Part 63 in Title 40 of the Code of Federal Regulations, the baseline actual emissions shall be adjusted to account for such emission reductions.
(iv) For an electric utility steam generating unit, the average rate shall be adjusted downward to reflect any emissions reductions under G. S. 143-215.107D and for which cost recovery is sought pursuant to G. S. 62-133.6.
(v) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period shall be used to determine the baseline actual emissions for all the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant; and
(vi) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by Subparts (ii) and (iii) of this Part.

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

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

(2) In the definition of "net emissions increase," the reasonable period specified in 40 CFR 5l.l65(a)(1)(vi)(C)(1) is seven years.

(3) Particulate matter PM2.5 significant levels in 40 CFR 51.165(a)(1)(x)(A) are incorporated by reference except as otherwise provided in this Rule. Sulfur dioxide (SO2) and nitrogen oxides (NOx) are precursors to PM2.5 in all nonattainment areas. Volatile organic compounds and ammonia are not significant precursors to PM2.5.

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

(c) Applicability. 40 CFR 51-165(a)(2) is incorporated by reference. This rule applies to areas designated as nonattainment in 40 CFR 81.334, including any subsequent amendments or editions.

(d) This Rule is not applicable to:
(1) complex sources of air pollution regulated only under Section .0800 of this Subchapter and not under any other rule in this Subchapter;
(2) emission of pollutants at the new major stationary source or major modification located in the nonattainment area that are pollutants other than the pollutant or pollutants for which the area is nonattainment (A major stationary source or major modification that is major for volatile organic compounds or nitrogen oxides is also major for ozone.);
(1) emission of pollutants for which the source or modification is not major;
(2) a new source or modification that qualifies for exemption under the provision set forth in 40 CFR 51.165 (a)(4); or
(3) emission of compounds listed under 40 CFR 51.100(s) as having been determined to have negligible photochemical reactivity except carbon
(e) 15A NCAC 02Q .0102 and .0302 are not applicable to any source to which this Rule applies. The source shall apply for and receive a permit as required in paragraph (a) of Rule 15 NCAC 02Q.0300 or .0500.
(f) To issue a permit to a source to which this Rule applies, the Director shall determine that the source will meet the following requirements:
(1) the new major stationary source or major modification will emit the nonattainment pollutant at a rate no more than the lowest achievable emission rate;
(2) The owner or operator of the proposed new major stationary source or major modification has demonstrated that all major stationary sources in the State that are owned or operated by this person (or any entity controlling, controlled by, or under common control with this person) are subject to emission limitations and are in compliance, or on a schedule for compliance that is federally enforceable or contained in a court decree, with all applicable emission limitations and standards of this Subchapter that EPA has authority to approve as elements of the North Carolina State Implementation Plan for Air Quality;
(3) The owner or operator of the proposed new major stationary source or major modification will obtain sufficient emission reductions of the nonattainment pollutant from other sources in the nonattainment area so that the emissions from the new major source and any associated new minor sources will be less than the emission reductions by a ratio of at least 1.00 to 1.15 for volatile organic compounds and nitrogen oxides and by a ratio of less than one to one for carbon monoxide. The baseline for this emission offset shall be the actual emissions of the source from which offset credit is obtained. Emission reductions must not include any reductions resulting from compliance (or

scheduled compliance) with applicable rules in effect before the application. The difference between the emissions from the new major source and associated new minor sources of carbon monoxide and the emission reductions must be sufficient to represent reasonable further progress toward attaining the Ambient Air Quality Standards. The emissions reduction credits must also conform to the provisions of 40 CFR 51.165 (a)(3)(ii)(A) through (J); and
(4) The North Carolina State Implementation Plan for Air Quality is being carried out for the nonattainment area in which the proposed source is located.
(g) New natural gas-fired electrical utility generating units for which cost recovery is sought pursuant to G.S. 62-133.6 shall install lowest achievable emission rate technology for NOx and S02, regardless of the applicability of the rest of this Rule.

(h) For the purposes of this Rule, 40 CFR 51.165(f) is incorporated by reference except that 40 CFR 51. 165(f)(10)(iv)(A) reads: "If the emissions level calculated in accordance with Paragraph (f)(6) of this Section is equal to or greater than 80 percent of the PAL level, the Director shall renew the PAL at the same level." 40 CFR 51.165(f)(10)(iv)(B) is not incorporated by reference.
(i) When a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation established after August 7, 1980, on the capacity of the source or modification to emit a pollutant, such as a restriction on hours of operation, then the provisions of this Regulation shall apply to the source or modification as though construction had not yet begun on the source or modification.
(j) To issue a permit to a source of a nonattainment pollutant, the Director shall determine, in accordance with Section 173(a)(5) of the Clean Air Act and in addition to the other requirements of this Rule, that an analysis (produced by the permit applicant) of alternative sites, sizes, production processes, and environmental control techniques for the source demonstrates that the benefits of the source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.
(k) For the purposes of this Rule, the provisions of 40 CFR 52.21(r)(2) regarding the period of validity of approval to construct are incorporated by reference except that the term "Administrator" is replaced with "Director."
(l) Approval of an application regarding to the requirements of this Rule does not relieve the owner or operator of the responsibility to comply with applicable provisions of other rules of this Chapter and any other requirements under local, State, or federal law.
(m) Except as provided in 40 CFR 52.28(c)(6),for a source or modification subject to this Regulation the following procedures shall be followed:

(1) Notwithstanding any other provisions of this paragraph, the Director shall, no later than 60 days after receipt of an administratively complete application, notify the Federal Land Manager with the U.S. Department of Interior and U.S. Department of Agriculture of an application from a source or modification subject to this Rule.

(2) The owner or operator of the source shall provide an analysis of the impairment of visibility that would occur because of the source or modification and general commercial, industrial and other growth associated with the source or modification.
(3) When a source or modification may affect the visibility of a Class I area, the Director shall provide written notification to all affected Federal Land Managers within 30 days of receiving the permit application or within 30 days of receiving advance notification of an application. The notification shall be given at least 30 days before the publication of the notice for public comment on the application. The notification shall include a copy of all information relevant to the permit application, including

an analysis provided by the source of the potential impact of the proposed source on visibility;
(4) The Director shall consider any analysis concerning visibility impairment performed by the Federal Land Manager if the analysis is received within 30 days of notification. If the Director finds that the analysis of the Federal Land Manager fails to demonstrate to the Director's satisfaction that an adverse impact on visibility will result in the Class I area, the Director shall follow the public hearing process described in 40 CFR 51.307(a)(3) on the application and include an explanation of the Director's decision or notice where the explanation can be obtained.
(5) The director shall only issue permits to those sources whose emissions will be consistent with making reasonable progress, as defined in Section 169A of the Clean Air Act, toward the national goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I areas when the impairment results from manmade air pollution. In making the decision to issue a permit, the Director shall consider the cost of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the useful life of the source.
(6) The director may require monitoring of visibility in or around any Class I area by the proposed new source or modification when the visibility impact analysis indicates possible visibility impairment. The requirements of this Paragraph do not apply to nonprofit health or nonprofit educational institutions.
(n) If the owner or operator of a source is using projected actual emissions to avoid applicability of nonattainment new source review, the owner or operator shall notify the Director of the modification before beginning actual construction. The notification shall include:

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

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

(o) The references to the Code of Federal Regulations (CFR) in this Rule are incorporated by reference unless a specific reference states otherwise. Except for 40 CFR 81.334, the version of the CFR incorporated in this Rule is that as of May 16, 2008, at

http://www.gpo.gov/fdsys/pkg/FR-2008-05-16/pdf/E8-10768.pdf and does not include any subsequent amendments or editions to the referenced material. The publication may be accessed free of charge.

NOTE: 15 NCAC .0531 incorporates by reference the regulations found at 40 CFR 51.165, with changes, as of June 13, 2007. This EPA action is approving the incorporation by reference with the exception of the phrase ''except ethanol production facilities producing ethanol by natural fermentation under the North American Industry Classification System (NAICS) codes 325193 or 312140,'' (as amended at 40 CFR 51.165(a)(1)(iv)(C)(20) and (a)(4)(xx).

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5th Revision	Jul 12, 1987	Jun 18, 1990	55 FR 23735
6th Revision	Jan 7, 1994	Jan 26, 1995	60 FR 5155
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.0532 SOURCES CONTRIBUTING TO AN AMBIENT VIOLATION

(a) This Rule applies to certain new major stationary sources and major modifications to which Rule .0531 of this Section does not apply, and which would contribute to a violation of a national ambient air quality standard but which would not cause a new violation.

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

(c) The Regulation is not applicable to:

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

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

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

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

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

(A) 1.0 ug/m^3 of SO2 on an annual basis,

(B) 5 ug/m^3 of SO2 on a 24-hour basis,

(C) 25 ug/m^3 of SO2 on a 3-hour basis,

(D) 1.0 ug/m^3 of total suspended particulates on an annual basis,

(E) 5 ug/m^3 of total suspended particulates on a 24-hour basis,

(F) 1.0 ug/m^3 of NO2 on an annual basis,

(G) 0.5 mg/m^3 of carbon monoxide on an 8-hour basis, or

(H) 2 mg/m^3 of carbon dioxide on a one-hour basis,

(I) 1.0 ug/m^3 of PM10 on an annual basis, or

(J) 5 ug/m^3 of PM10 on a 24-hour basis,

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

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

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

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

(d) Paragraphs (a) and (b) of Rule 15 NCAC 2H.0601 are not applicable to any source to which this Regulation applies; These sources shall apply for a permit as required in subparagraph (b) of Rule 15 NCAC 2H.0601

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

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

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

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

(A) The source will comply with Paragraph (e)(3)(A) of Rule .0532 of this Section when the source is

evaluated as if it were in the nonattainment area; or

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

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

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

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

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

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107 (a)(5); 143-215.108(b);
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Original Reg.	Apr 16, 1981	Jul 26, 1982	47 FR 32118
1st Revision	Jan 24, 1983	Oct 11, 1985	50 FR 41501
2nd Revision	Dec 17, 1984	Dec 19, 1986	51 FR 45468
3rd Revision	Jul 14, 1989	Jan 16, 1990	55 FR 1419
4th Revision	Jul 15, 1987	Jun 18, 1990	55 FR 23735
5th Revision	Jan 07, 1994	Jan 26, 1995	60 FR 5155
6th Revision	Jul 01, 1994	Feb 01, 1996	61 FR 3584

.0533 STACK HEIGHT

(a) For the purpose of this Regulation, the following definitions apply:
(1) "Stack means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.
(2) "A stack in existence" means that the owner or operator had:
(A) begun, or caused to begin, a continuous program of physical on-site construction of the stack; or
(B) enter into binding agreements or contractual obligation which could not be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed in a reasonable time.
(3) "Dispersion technique"
(A) "Dispersion technique" means any technique which attempts to affect the concentration of a pollutant in the ambient air by:
(i) using that portion of a stack which exceeds good engineering practice stack height,
(ii) varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant, or
(iii) increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise.
(B) "Dispersion technique" does not include:
(i) The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharges from the facility generating the gas stream;
(ii) the using of smoke management in agricultural or silvicultural prescribed burning programs;
(iii) the merging of exhaust gas streams where;
(I) The facility owner or operator demonstrates that the source was originally designed and constructed with such merged gas streams;
(II) After July 8, 1985, such merging is part of change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant. This exclusion from the definition of "dispersion techniques" shall apply only to the emission limitation for the pollutant affected by such change in operation; or
(III) Before July 8, 1985, such merging was part of a change in operation at the source that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted prior to merging, the director shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Absent a demonstration by the source owner or operator that merging was not significantly motivated by such intent, the director shall deny credit for the effects of such merging in calculating the allowable emissions for the source;
(IV) Episodic restrictions on residential woodburning and open burning or;
(V) Techniques under Subpart (A)(iii) of this
Subparagraph which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur dioxide from the facility do not exceed 5,000 tons per year.
(4) "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 under 15 NCAC 2H.0600 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 cover under Part (B) of this Subparagraph, the height of nearby structure(s) 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 may require the use of a field study or fluid model to verify GEP stack height for the source; or 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 of nearby terrain features.

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

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

(B) under Part (4)(D) of this Paragraph, not greater than one-half mile, except that the portion of a terrain feature maybe considered to be nearby which falls within a distance of up to 10 times the maximum height [H_t] of the feature, not to exceed two miles if such feature achieves a height [h_t] one-half mile from the stack that is at least 40 percent of the GEP stack height determined by Part (4)(C) of this Paragraph or 26 meters, which- ever is greater, as measured from the ground level elevation at the base of the stack. The height of the structure or terrain feature is measured from the ground-level elevation at the base of the stack.

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

(A) for source seeking credit for stack height exceeding that established under Part (4)(B) or (C) of this Paragraph, a maximum ground-level concentration due to emissions from a stack due in whole or part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and which contributes to a total concentration due to emissions from all sources that is greater that an ambient air quality standard. For sources subject to Regulation .0530 of this Section, an excessive concentration alternatively means a maximum ground-level concentration due to emissions from a stack due in whole or in part to downwash, wakes, or eddy effects produced by nearby structures or nearby terrain features which individually is at least 40 percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects and greater than a prevention of significant deterioration increment. The allowable emission rate to be used in making demonstrations under this part shall be prescribed by the new source performance standard that is applicable to the source category unless the owner or operator demonstrates that the emission rate is infeasible. Where such demonstrations are approved by the director, an alternative emission rate shall be established in consultation with source owner or operator;

(B) for sources seeking credit after October 11, 1983, for increases in existing stack heights up to the heights established under Part (4)(B) or (C) of this Paragraph:

(I) a maximum ground-level concentration due in whole or in part to downwash, wakes, or eddy effects as provided in Part (A) of the Sub-paragraph, except that the emission rate specified by any applicable Regulation in this Subchapter (or, in the absence of such a limit, the actual emission rate) shall be used, or

(II) the actual presence of a local nuisance 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 Part (4)(B) or (C) of this Paragraph where the director requires the use of a field study or fluid model to verify stack height, for sources seeking stack height credit after November 9, 1984 based on the aero-

dynamic 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, 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.

(b) With the exception stated in Paragraph (c) of this Rule, the degree of emission limitations required by any regulation in this Subchapter shall not be affected by:

(1) that amount of a stack height that exceeds good engineering practice; or

(2) any other dispersion technique.

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

(1) stack heights in existence or dispersion techniques implemented before December 31, 1970, except where pollutants are being emitted from such stacks or using such dispersion techniques by sources, as defined in Section 111 (a)(3) of the Clean Air Act, which were constructed, or reconstructed, or for which major modifications, as defined in Regulations .0530(b) and .0531(b) of this Section were carried out after December 31, 1970; or

(2) coal-fired steam electric generating units, subject to provisions of Section 118 of the federal Clean Air Act, which began operation before July 1, 1957, and whose stacks were constructed under a construction contract awarded before February 8, 1974. However, these exemptions shall not apply to a new stack that replaces a stack that is exempted by Subparagraphs (1) and (2) of this Paragraph. These exemptions shall no apply to a new source using a stack that is exempted by Subparagraphs (1) and (2) of this Paragraph.

(d) this Regulations shall not restrict the actual stack height of any source.

History Note: Authority G.S. 143-215.3(a)(1);
Eff. November 1, 1982;
Amended Eff. April 1, 1986.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Feb 12, 1986	Mar 09, 1989	54 FR 9992
1st Revision	Jul 01, 1994	Feb 01, 1996	61 FR 3584

.0535 EXCESS EMISSIONS REPORTING AND MALFUNCTIONS

(a) For the purpose of this regulation the following definitions apply:
(1) "Excess emissions" means an emission rate that exceeds any applicable emission limitation or standard allowed by any regulation in Sections .0500 or .0900 of this Subchapter or by a permit condition.
(2) "Malfunction" means any unavoidable failure of air pollution control equipment, process equipment, or process to operate in a normal and usual manner that results in excess emissions. Excess emissions during periods of routine start-up and shut-down of process equipment are not considered to be a malfunction. Failures caused entirely or in part by poor maintenance, careless operations or any other upset condition with in the control of the emission source are not to be considered a malfunction.
(3) "Start-up" means the commencement of operation of any source which has shut-down or ceased operation for a period of time sufficient to cause temperature, pressure, process, chemical, or pollution control device imbalance which would result in excess emission.
(4) "Shut-down" means any cessation of the operation of any source for any purpose.
(b) This Rule does not apply to sources to which Rules .0524, .1110 or .1111 of this Subchapter applies unless excess emissions exceed an emission limit established in a permit issued under 15A NCAC 2H .0610 that is more stringent than the emission limit set by Rules .0524, .1110,or .1111 of this Subchapter.
(c) Any excess emissions that do not occur during start-up or shut down shall be considered a violation of the appropriate rule unless the owner or operator of the source of the excess emissions demonstrates to the director, that the excess emissions are the result of a malfunction. To determine if the excess emissions are the result of a malfunction, the director shall consider, along with any other pertinent information, the following:
(1) The air cleaning device, process equipment, or process has been maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions;
(2) Repairs have been made in an expeditious manner when the emission limits have been exceeded;
(3) The amount and duration of the excess emissions, including any bypass have been minimized to the maximum extent practicable;
(4) All practical steps have been taken to minimize the impact of the excess emissions on ambient air quality;
(5) The excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
(6) The requirements of Paragraph (f) of the Regulation have been met; and
(7) If the source is required to have a malfunction abatement plan, it has followed that plan.

All malfunctions shall be repaired as expeditiously as practicable. However, the director shall not excuse excess emissions caused by malfunctions from a source for more than 15 percent of the operating time during each calendar year.
(d) All electric utility boiler units subject to a rule in this section shall have malfunction abatement plan approved by the director. In addition, the director may require any source that he has determined to have a history of excess emissions to have a malfunction abatement plan approved by the director. The malfunction plans of electric utility boiler units and of other sources required to have them shall be implemented when a malfunction or other breakdown occurs. The purpose of the malfunction abatement plan is to prevent, detect, and correct malfunctions or equipment failures that could result in excess emissions. A malfunction abatement plan shall contain as a minimum:
(1) A complete preventative maintenance program including:
(A) the identification of the individuals or positions responsible for inspecting, maintaining and repairing air cleaning devices;

(B) a description of the items or conditions that will be inspected and maintained;
(C) the frequency of the inspection, maintenance services and repairs; and
(D) an identification and quantities of the replacement parts which shall be maintained in inventory for quick replacement;
(1) an identification of the source and air cleaning operating variables and outlet variables, such as opacity, grain loading, and pollution concentration, that may be monitored in order to detect a malfunction or failure; the normal operating range of these variable and a description of the method of monitoring or surveillance procedures and of informing operating personnel of any malfunctions, including alarm systems, lights or other indicators; and
(2) a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with the applicable regulation as expeditiously as practicable but no longer than the next boiler or process outage that would provide for an orderly repair or correction of the malfunction or 15 days, whichever is the shorter time interval. If it is anticipated that the malfunction would continue for more than 15 days, a case-by-case repair schedule will be established by the director in conjunction with the source.
The owner or operator shall maintain logs to show that the operation and maintenance parts of the malfunction abatement plan are implemented. These logs shall be subject to inspection by the director or his designee upon request during business hours.

(e) The owner or operator of any electric utility boiler unit required to have a malfunction abatement plan shall submit a malfunction abatement plan to the director within 60 days of the effective date of this Rule. The owner or operator of any source required by the director to have a malfunction abatement plan shall submit a malfunction abatement plan to the director within 6 months after it has been required by the director. The malfunction abatement plan and any amendment to it shall be reviewed by the director or his designee. If the plan is satisfactory the director shall approve it. If the plan does not adequately carry out the objectives described by Paragraph (d) of this Rule the director shall disapprove the plan. The director shall state his reasons for his disapproval. The person who submits the plan shall satisfactorily amend the plan as required by the director within a period of time prescribed by the director. Any person having an approved malfunction abatement plan shall submit to the director for his approval amendments reflecting changes in any element of the plan required by Paragraph (d) of this Regulation or amendments when requested by the director. The malfunction abatement plan and amendments to it shall be implemented within 90 days upon receipt of written notice of approval.
(f) The owner or operator of a source of excess emissions which last for more than 4 hours and which results from a malfunction, a breakdown of process or control equipment or any other abnormal conditions, shall;
(1) notify the director or his designee of any such occurrence within 24 hours of becoming aware of the occurrence and describe:
(A) name and location of the facility
(B) the nature and the cause of the malfunction or breakdown
(C) the time when the malfunction or breakdown is first observed,
(D) the expected duration, and
(E) an estimated rate of emissions;
(2) notify the director or his designee immediately when the corrective measures have been accomplished;
(5) submit, if requested, to the director within 15 days after the request a written report which includes:
(A) name and location of the facility,
(B) identification or description of the processes and control devices involved in the malfunction or breakdown,

(C) the cause and nature of the event,
(D) time and duration of the violation or the expected duration of the excess emission if the malfunction or breakdown has not been fixed.
(E) estimated quantity of the pollutants emitted,
(F) steps taken to control the emissions and to prevent recurrences and if the malfunction or breakdown has not been fixed, steps planned to be taken, and
(G) any other pertinent information requested by the director. After the malfunction or breakdown has been corrected, the director may require the owner or operator of the source to test the source in accordance with rule .0501 of this Section to demonstrate compliance.

(g) Start-up and shut-down. Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that the excess emissions are unavoidable when requested to do so by the Director. The Director may specify for a particular source the amount, time, and duration of emissions that are allowed during start-up or shut- down. The owner or operator shall, to the extent practicable, operate the source and any associated air pollution control equipment or monitoring equipment in a manner consistent with best practicable air pollution control practices to minimize emissions during start-up and shut-down.

History Note: Authority G.S.143-215.3 (a)(1); 143-215.107(a)(4); 143- 215.107(a)(5);
Eff. March 1, 1983;
Amended Eff July, 1, 1996, October 1, 1991, May 1, 1990;
April 1, 1986.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Oct 04, 1984	Sep 09, 1986	51 FR 32073
1st Revision	Feb 25, 1987	Apr 17, 1987	52 FR 12523
2nd Revision	Aug 16, 1996	Aug 1, 1997	62 FR 41277

.0536 PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS

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

(b) Notwithstanding Regulation .0503 of this Section, emissions of particulate matter from the utility boiler units specified in the following table shall not exceed the maximum emission rate in the table as measured be a stack test conducted in accordance with Regulation .0501 of this Section. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.

Facility	Boiler/ Unit	Maximum Emission Rate (Lb/Million BTU of Heat Input)
Duke Power Company		
Allen	1	0.25
	2	0.25
	3	0.25
	4	0.25
	5	0.25
Belews Creek	1	0.15
	2	0.15
Buck	5	0.15
	6	0.15
	7	0.15
	8	0.15
	9	0.15
Cliffside	1	0.25
	2	0.25
	3	0.25
	4	0.25
	5	0.25
Dan River	1	0.15
	2	0.15
	3	0.25
Marshall	1	0.20
	2	0.20
	3	0.18
	4	0.18

Facility	Boiler Unit	Maximum Emission Rate

		(Lb/Million BTU of Heat Input)
Riverbend	4	0.12
	5	0.12
	6	0.12
	7	0.12

Carolina Power and Light Company

Cape Fear	5	0.20
	6	0.20
Roxboro	1	0.25
	2	0.16
	3	0.10

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

(d) Stack tests shall be conducted in accordance with Regulation .0501 of this Section, and six-minute average opacity readings shall be recorded during the tests.

(e) The owner or operator of units listed in Paragraph (b) of this Regulation shall produce each year for each unit at least one stack test conducted in accordance with Regulation .0501 of this Section, the results of which are submitted to and accepted be the director and which demonstrate achievement of the maximum emission rate for that unit.

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

(g) Opacity shall be measured using an opacity monitoring system that meets the performance specifications of Appendix B of 40 CFR Part 60. The opacity monitoring system shall be subjected to a quality assurance program approved by the director. The owner or operator of each unit subject to this Regulation shall have on file with the director an approve quality assurance program, and shall submit to the director within the time period of his request for his approval a revise quality assurance program, including at least procedures and frequencies for calibration, standards, traceability, operational checks, maintenance, auditing, data validation, and a schedule for implementing the quality assurance program.

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

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107 (a)(5); Eff. March 1, 1983; Amended Eff. August 1, 1987; February 1, 1986.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jun 19, 1987	Apr 5, 1988	53 FR 11068
1st Revision	Aug 01, 1991	Feb 14, 1996	61 FR 5689

.0540 PARTICULATES FROM FUGITIVE NON-PROCESS DUST EMISSION SOURCES

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

(1) "Fugitive non-process dust emission" means particulate matter that is not collected by a capture system and is generated from areas such as pit areas, process areas, haul roads, stockpiles, and plant roads.

(2) " Substantive complaints" means complaints that are verified with physical evidence acceptable to the Division.

(b) The owner or operator of a facility required to comply with rules 15A NCAC 2D .0506 Particulates from Hot Mix Asphalt Plants, .0509, Particulates from Mica or Feldspar Processing Plants, .0510 Particulates from Sand, Gravel, or Crushed Stone Operations, or .0511 Particulates from Lightweight Aggregate Processes, shall not cause or allow fugitive non-process dust emissions to cause or contribute to substantive complaints.

(c) If fugitive non-process dust emissions from a facility required to comply with this Rule cause or contribute to substantive complaints, the owner or operator of the facility shall:

(1) within 30 days upon receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a written description of what has been done and what will be done to reduce fugitive non- process dust emission from that part of the facility that caused the second substantive complaint;

(2) Within 90 days of receipt of written notification from the director of a second substantive complaint in a 12-month period, submit to the Director a control plan as described in Paragraph (e) of this rule; and

(3) within 30 days after the Director approves the plan, be in compliance with the plan

(d) The Director may require that the owner or operator of a facility covered by paragraph (b) of this Rule, develop and submit a fugitive non-process dust control plan as described in Paragraph (e) of this Rule if:

(1) ambient air quality measurements or dispersion modeling acceptable to the Division show violation or a potential for a violation of an ambient air quality standard for particulates in 15A NCAC 2D .0400; or

(2) if the Division is observes excessive fugitive non-process dust emissions from the facility beyond the property boundaries.

The control plan shall be submitted to the Director no later than 90 days after notification. The facility shall be in compliance with the plan within 30 days after the director approves the plan.

(e) The fugitive dust control plan shall:

(1) identify the sources of fugitive non-process dust emissions within the facility;

(2) describe how fugitive non-process dust will controlled from each identified source;

(3) contain a schedule by which the plan will be implemented;

(4) describe how the plan will be implemented, including training of facility personnel; and

(5) describe methods to verify compliance with the plan.

(f) The Director shall approve the plan if he finds that:

(1) the plan contains all required elements in Paragraph (e) of this Rule;

(2) the proposed schedule contained in the plan will reduce fugitive non-process dust emissions in a timely manner;

(3) the methods used to control fugitive non-process dust emissions are sufficient to prevent fugitive non-process dust emissions from causing or contributing to a violation of the ambient air quality standards for particulates; and

(4) the described compliance verification methods are sufficient to verify compliance with the plan.

If the Director finds that the proposed plan does not meet the requirements of this Paragraph he shall

notify the owner or operator of the facility of any deficiencies in the proposed plan. The owner or operator shall have 30 days after receiving written notification from the Director to correct the deficiencies.

(g) If after a plan has been implemented, the Director finds that the plan inadequately controls fugitive non-process dust emissions, he shall require the owner or operator of the facility to correct the deficiencies in the plan. Within 90 days after receiving written notification from the Director identifying the deficiency, the owner or operator of the facility shall submit a revision to his plan to correct the deficiencies.

History note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143- 215.108(c)(7);
Eff. July 1, 1998

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Jul 29, 1998	Nov 10, 1999	64 FR 61213

.0542 CONTROL OF PARTICULATE EMISSIONS FROM COTTON GINNING OPERATIONS

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

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

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

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

(3) "Bale" means a compressed and bound package of cotton lint, nominally weighing 500 pounds.

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

(5) "Ginning season" means the period from September 1 until January 31 of the following year or until such date beyond the end of January of the following year as extended by the Director if the Commisioner of Agriculture certifies to the Director that the cotton ginning season has been delayed because of adverse weather;

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

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

(c) Applicability. This rule applies to all existing, new, and modified cotton ginning operations. Facilities with a maximum rated capacity of less than 10 bales per hour that do not have control devices on lint cleaners and battery condensers as of July 1, 2002 shall not be required to add the emission control devices in Paragraph (d)(1) of this Rule to lint cleaning exhausts and shall not be required to add the emission control devices in Paragraph (d)(2) of this Rule to battery condenser exhausts.

(d) Emission Control Requirements. The owner or operator of each cotton ginning operation shall control particulate emissions from the facility as follows.

(1) By no later than September 1, 2003, the owner or operator shall control all high pressure exhausts and lint cleaning exhausts with an emission control system that includes:

(A) one or more properly sized 1D-3D cyclones to achieve 95% efficiency; or

(B) an equivalent device with a minimum of 95% efficiency.

(2) By no later than September 1, 2003, the owner or operator shall control all remaining low pressure exhausts by an emission control system that includes:

(A) at least a 2D-2D cyclone to achieve 90% efficiency; or

(B) an equivalent device with at least a 90% efficiency.

(3) For any controls that are not in place as of July 1, 2002, the owner or operator shall submit by September 1, 2002, a compliance schedule detailing the installation of those controls that includes:

(A) a description of the type of equipment to be installed;

(B) date by which design plans shall be completed;

(C) date by which construction shall begin;

(D) date by which construction shall be completed;

(E) date by which compliance shall be achieved.

The date for completing construction of controls shall be no later than September 1, 2003.

(e) Raincaps. Exhausts from emission points or control devices shall not be equipped with raincaps or

other devices that deflect the emissions downward or outward after September 1, 2002.

(f) Operation and Maintenance. To ensure that optimum control efficiency is maintained, the owner or operator shall establish, based on manufacturers recommendations, an inspection and maintenance schedule for the control device, other emission processing equipment, and monitoring devices that are used pursuant to this Rule. The inspection and maintenance schedule shall be followed throughout the ginning season. The result of the inspection and any maintenance performed on the control equipment, emission processing equipment, or monitoring devices shall be recorded in the log book requires in Paragraph (i) of this Rule.

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

(1) Trash Stackers. The owner or operator of a trash stacker shall:

(A) Install, maintain, and operate as a minimum, a three sided enclosure with a roof whose sides are high enough above the opening of the dumping device to prevent wind from dispersing dust or debris; or

(B) Install, maintain, and operate a device to provide wet suppression at the dump area of the trash cyclone and minimize free fall distance of waste material exiting the trash cyclone.

(2) Trash Stacker/Trash Composting System. The owner or operator of a trash stacker/trash composting system shall install, maintain, and operate a wet suppression system providing dust suppression in the auger box assembly and at the dump area of the trash stacker system. The owner or operator shall keep the trash material wet and compost it in place until the material is removed from the dump area for additional composting or disposal.

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

(4) Traffic areas. The owner or operator shall clean paved roadways, parking, and other traffic areas at the facility as necessary to prevent re-entrainment of dust or debris. The owner or operator shall treat unpaved roadways, parking, and other traffic areas at the facility with wet or chemical dust suppressant as necessary to prevent dust from leaving the facility=s property and shall install and maintain signs limiting vehicle speed to 10 miles per hour where chemical suppression is used and to 15 miles per hour where wet suppression is used.

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

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

(1) the name and address of the petitioner;

(2) the location and description of the ginning operation;

(3) a description of the alternative control measures;

(4) a demonstration that the alternative control measures is at least as effective as the control device or method specified in this Rule.

(i) Approval of Alternative Control Measures. The Director shall approve the alternative control measures if he finds that:

(1) all the information required by Paragraph (h) of this Rule has been submitted; and

(2) the alternative control measure is at lease as effective as the control device or method specified in this Rule.

(j) Monitoring.

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

(2) Before or during the first week of operation of the 2002-2003 ginning season, the owner or operator of each gin shall conduct a baseline study of the entire dust collection system, without cotton being processed, to ensure air flows are within the design range for each collection device. For 2D-2D cyclones the air flow design range is 2700 to 3600 feet per minute. For 1D-3D cyclones the design range is 2800 to 3600 feet per minute. For other control devices the air flow design range is that found in the manufacturer=s specifications. Gins constructed after the 2002-2003 ginning season shall conduct the baseline study before or during the first week of operation of the first ginning season following construction. During the baseline study the owner or operator shall measure or determine according to the methods specified in this Paragraph and record in a logbook:

(A) the calculated inlet velocity for each control device;

(B) the static pressure downstream of each fan; and

(C) the pressure drop across each control device.

The owner or operator shall use Method 1 and Method 2 of 40 CFR Part 60 Appendix A to measure flow and static pressure and determine inlet velocity.

(3) On a monthly basis following the baseline study, the owner or operator shall measure and record in the logbook the static pressure at each port where the static pressure was measured in the baseline study. Measurements shall be made using a manometer, a Magnehelic7 gauge, or other device that the Director has approves as being equivalent to a manometer. If the owner or operator measures a change in static pressure of 20 percent or more from that measured in the baseline study, the owner or operator shall initiate corrective action. Corrective action shall be recorded in the logbook. If corrective action will take more than 48 hours to complete, the owner or operator shall notify the regional supervisor of the region in which the ginning operation is located as soon as possible, but by no later than the end of the day such static pressure is measured.

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

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

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

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

(1) Results of the baseline study as specified in Paragraph (j)(2) of this Rule;

(2) Results of new baseline studies as specified in Paragraph (j)(4) of this Rule;

(3) Results of monthly static pressure checks and any corrective action taken as specified in Paragraph (j)(3) of this Rule;

(4) Observation from daily inspections of the facility and any resulting corrective actions taken as required in Paragraph (j)(5) of this Rule; and

(5) A copy of the manufacturer=s specifications for each type of control device installed. The logbook shall be maintained on site and made available to Division representatives upon request.

(l) Reporting. The owner or operator shall submit:

(1) by March 1 of each year a report containing the following:

(A) the name and location of the cotton gin;
(B) the number of bales of cotton produced during the previous ginning season;
(C) a maintenance and repair schedule based on inspection of the facility at the conclusion of the previous cotton ginning season required in Paragraph (j)(6) of this Rule; and
(D) signature of the appropriate official as identified in 15A NCAC 2Q .0304(j), certifying as to the truth and accuracy of the report.
(m) Compliance Schedule. Existing sources shall comply as specified in Paragraph (d) of this Rule. New and modified sources shall be in compliance upon start-up.
(n) Record retention. The owner or operator shall retain all records required to be kept by this Rule for a minimum of three years from the date of recording.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. July 1, 2002.

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg.	Aug 08, 2002	Dec 27, 2002	67 FR 78980

.0543 Best Available Retrofit Technology

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

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

(c) The Director shall have the maximum flexibility allowed under 40 CFR 51.308 or 40 CFR Part 51 Appendix Y.

(d) This rule applies to BART-eligible sources as determined using 40 CFR Part 51, Appendix Y that cause or contribute to any visibility impairment in a mandatory Class I Federal area as determined by using 40 CFR Part 51, Subpart P.

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

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

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

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

(h) BART shall be determined using "Guidelines for Determining Best Available Retrofit Technology for Coal-fired Power Plants and Other Existing Stationary Facilities" (1980), 40 CFR 51.308(e)(1)(ii), and 40 CFR Part 51, Appendix Y. Electric generating units covered under and complying with 15A NCAC 2D .2400, Clean Air Interstate Rules, are considered to be in compliance with the BART requirements for nitrogen oxides and sulfur dioxide under this Rule.

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

(j) "Guidelines for Determining Best Available Retrofit Technology for Coal-fired Power Plants and Other Existing Stationary Facilities" is incorporated by reference, exclusive of appendix E, and shall include any later amendments or editions. This document, which was

published in the Federal Register on February 6, 1980 (45 FR 8210), is EPA publication No. 450/3-80-009b and can be obtained from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 for $84.00. It is also available for inspection at the National Archives and Records Administration (NARA). Information on the availability of this material at NARA may be found at:
http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

History Note: Authority G.S.143-215!3(a}{1); 143-215.107(a)(5), (10)
Eff. July 1, 2006.

	Date Submitted To EPA	Date Approved by EPA	Federal Register
Original	Dec 17, 2007	Jun 27, 2012	77 FR 38185

.0544 PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS FOR GREENHOUSE GASES

(a) The purpose of this Rule is to implement a program for the prevention of significant deterioration of air quality for greenhouse gases as required by 40 CFR 51.166. For purposes of greenhouse gases, the provisions of this Rule shall apply rather than the provisions of Rule .0530 of this Section. For all other regulated NSR pollutants, the provisions of Rule .0530 of this Section apply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(j) Permits may be issued based on innovative control technology as set forth in 40 CFR 51.166(s)(1) if the 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 allowance set forth in 40 CFR 51.166(s)(4).

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

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

(m) If the owner or operator of a source is using projected actual emissions to avoid applicability of prevention of significant deterioration requirements, the owner or operator shall notify the Director of the modification before beginning actual construction. The notification shall include:

(1) a description of the project;

(2) identification of sources whose emissions could be affected by the project;

(3) the calculated projected actual emissions and an explanation of how the projected actual emissions were calculated, including identification of emissions excluded by 40 CFR 51.166(b)(40)(ii)(c);

(4) the calculated baseline actual emissions and an explanation of how the baseline actual emissions were calculated; and

(5) any netting calculations if applicable.

If upon reviewing the notification, the Director finds that the project will cause a prevention of significant deterioration evaluation, then the Director shall notify the owner or operator of his findings. The owner or operator shall not make the modification until it has received a permit issued pursuant to this Rule. If a permit revision is not required pursuant to this Rule, the owner or operator shall maintain records of annual emissions in tons per year, on a calendar year basis related to the modifications for 10 years following resumption of regular operations after the change if the project involves increasing the emissions unit's design capacity or its potential to emit the regulated NSR pollutant; otherwise these records shall be maintained for five years following resumption of regular operations after the change. The owner or operator shall submit a report to the Director within 60 days after the end of each year during which these records must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c). The owner or operator shall make the information

documented and maintained under this Paragraph available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

(n) The references to the Code of Federal Regulations (CFR) in this Rule are incorporated by reference unless a specific reference states otherwise. The version of the CFR incorporated in this Rule is that published in the Federal Register June 3, 2010 and effective August 2, 2010 and does not include any subsequent amendments or editions to
the referenced material. This Rule is applicable as of its effective date in accordance with 40 CFR 51.166(b)(48) and (b)(49)(iv) and (v).

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); 143-215.108(b); 150B-21.6;
Eff. January 28, 2011 pursuant to E.O. 81, Beverly E. Perdue;
Pursuant to G.S. 150B-21.3(c), a bill was not ratified by the General Assembly to disapprove this rule.

	Date Submitted To EPA	Date Approved by EPA	Federal Register
Original	May 17, 2011	Oct 18, 2011	76 FR 64240