

15A NCAC 02D .0530 PREVENTION OF SIGNIFICANT DETERIORATION

(a) The purpose of the Rule 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 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 for each regulated NSR pollutant 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; and
 - (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; and
- (4) Particulate matter PM_{2.5} 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 nitrogen oxides (NO_x) are

precursors to PM_{2.5} in all attainment and unclassifiable areas. Volatile organic compounds and ammonia are not significant precursors to PM_{2.5}.

(c) All areas of the State are classified as Class II, except 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) and Paragraph (v) of this Rule. 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(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).

(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 NO_x and SO₂, regardless of applicability of the rest of this Rule.

(i) For the purposes of this Rule, 40 CFR 51.166(w)(10)(iv)(a) reads: "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 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 Rule 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 40 CFR 51.100(s) 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 Rule 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)(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).

(q) If a source to which this Rule 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)(1). 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
PM _{2.5}	Annual arithmetic mean	4
PM _{2.5}	24 hour maximum	9
PM ₁₀	Annual arithmetic mean	17
PM ₁₀	24 hour maximum	30

(r) 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.

(s) Approval of an application with regard 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 Subchapter or Subchapter 02Q of this Title and any other requirements under local, state, or federal law.

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

- (1) Notwithstanding any other provisions of this Paragraph, the Director shall, no later than 60 days after receipt of an 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; and
- (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 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, 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
PM _{2.5}	Annual arithmetic mean	1	4	8
PM _{2.5}	24 hour maximum	2	9	18
PM ₁₀	Annual arithmetic mean	4	17	34
PM ₁₀	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.

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);
 Eff. June 1, 1981;
 Amended Eff. December 1, 1992; August 1, 1991; October 1, 1989; July 1, 1988; October 1, 1987; June 1, 1985; January 1, 1985; February 1, 1983;
 Temporary Amendment Eff. March 8, 1994, for a period of 180 days or until the permanent rule is effective, whichever is sooner;
 Amended Eff. September 1, 2013; January 2, 2011; September 1, 2010; May 1, 2008; July 28, 2006; July 1, 1997; February 1, 1995; July 1, 1994.