

**.0516 SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

(a) Emission 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 Rules .0524, .0527, .1110, .1111, .1205, .1206, or .1210 of this Chapter shall meet the standard in that particular rule instead of the standard in Paragraph (a) of this Rule.

*NCDQA 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.

*WNCRAQA History Note:* Adopted Eff. May 8, 2000.  
Amended Eff. May 10, 2004.

**.0517 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.

*NCDQA 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.

*WNCRAQA History Note:* Adopted Eff. May 8, 2000

**.0518 MISCELLANEOUS VOLATILE ORGANIC COMPOUND EMISSIONS (REPEALED)**

*NCDQA History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);  
Eff. February 1, 1976;  
Amended Eff. April 1, 1997; July 1, 1996; September 1, 1994;  
December 1, 1993; February 1, 1983.

*Repealed Eff. July 1, 2000*

*WNCRAQA History Note:       Adopted Eff. May 8, 2000  
                                      Repealed Eff. July 10, 2000*

**.0519 CONTROL OF NITROGEN DIOXIDE AND NITROGEN OXIDES EMISSIONS**

(a) The emissions of nitrogen dioxide shall not exceed 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 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 Rule in pounds per million BTU.
- (3) Eo = emission limit for oil or gas as determined by Paragraph (b) of this Rule 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 actual total heat input to the combination in BTU per hour.

(d) A boiler subject to an emission standard for nitrogen oxides under Rule .0524 (New Source Performance Standards) or .1418 (New Generating Units, Large Boilers, and Large I/C Engines) of this Chapter shall meet the standard in that particular rule instead of the standard in Paragraph (a) of this Rule.

*NCDAQ History Note:       Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);  
                                      Eff. February 1, 1976;  
                                      Amended Eff. July 1, 2007; January 1, 2005; July 1, 1996; October  
                                      1, 1989;  
                                      January 1, 1985.*

*WNCRAQA History Note:       Adopted Eff. May 8, 2000  
                                      Amended Eff. September 10, 2007; September 12, 2005*

**.0520 CONTROL AND PROHIBITION OF OPEN BURNING (REPEALED)**

*NCDQA History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);  
 Eff. February 1, 1976;  
 Amended Eff. January 1, 1985; November 1, 1978; December 1,  
 1976;  
 Repealed Eff. July 1, 1996.

**.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 reasonably be expected to occur, except during startup, shutdowns, and malfunctions approved according to procedures set out in 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 in Rules .0506, .0508, .0524, .0543, .0544, .1110, .1111, .1205, .1206, .1210, .1211, or .1212 of this Chapter shall meet that standard instead of the standard contained in this Rule. This Rule does not apply to engine maintenance, rebuild, and testing activities where controls are infeasible, except it does apply to the testing of peak shaving and emergency generators. (In deciding if controls are infeasible, the Director shall consider emissions, capital cost of compliance, annual incremental compliance cost, and environmental and health impacts.)

(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 shall 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 data necessary to show that emissions up to those allowed by Paragraph (c) of this Rule shall 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 Chapter. During this 90-day period the applicant shall submit data necessary to show that emissions up to those allowed by Paragraph (c) of this Rule will not contravene ambient air quality standards. This evidence shall include an inventory of past and projected emissions from the facility. In its review of ambient air quality, the Agency 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 excluding startups, shutdowns, maintenance periods when fuel is not being combusted, and malfunctions approved as such according to procedures approved under Rule .0535 of this Section:

- (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 Chapter or 40 CFR Part 60, 61, or 63 or any ambient air quality standard in Section .0400 of this Chapter or 40 CFR Part 50.

*NCAQA History Note:*

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

*Amended Eff. January 1, 2009; July 1, 2007; January 1, 2005; June 1, 2004; April 1, 2003; April 1, 2001; July 1, 1998; July 1, 1996; December 1, 1992; August 1, 1987; January 1, 1985; May 30, 1978.*

*WNCRAQA History Note: Adopted Eff. May 8, 2000.  
Amended Eff. March 9, 2009; September 10, 2007; September 12, 2005; July 12, 2004; May 10, 2004; April 9, 2001.*

**.0522 CONTROL AND PROHIBITION OF ODOROUS EMISSIONS (REPEALED)**

*NCDAQ 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.  
Repealed Eff. April 1, 2001.*

*WNCRAQA History Note: Adopted Eff. May 8, 2000.  
Repealed Eff. April 9, 2001.*

**.0523 CONTROL OF CONICAL INCINERATORS (REPEALED)**

*NCDAQ 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.  
Repealed Eff. July 1, 2000*

*WNCRAQA History Note: Adopted Eff. May 8, 2000  
Repealed Eff. July 10, 2000*

**.0524 NEW SOURCE PERFORMANCE STANDARDS**

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

(b) The following is not included under this Rule:

- (1) 40 CFR Part 60, Subpart AAA (new residential wood heaters);

- (2) 40 CFR Part 60, Subpart B (adoption and submittal of state plans for designated facilities);
  - (3) 40 CFR Part 60, Subpart C (emission guidelines and compliance times);
  - (4) 40 CFR Part 60, Subpart Cb (guidelines for municipal waste combustors constructed on or before September 20, 1994);
  - (5) 40 CFR Part 60, Subpart Cc (guidelines for municipal solid waste landfills);
  - (6) 40 CFR Part 60, Subpart Cd (guidelines for sulfuric acid production units);
  - (7) 40 CFR Part 60, Subpart Ce (guidelines for hospital, medical, infectious waste incinerators);
  - (8) 40 CFR Part 60, Subpart BBBB (guidelines for small municipal waste combustion units constructed on or before August 30, 1999);
  - (9) 40 CFR Part 60, Subpart DDDD (guidelines for commercial and industrial solid waste incinerators constructed on or before November 30, 1999);
  - (10) 40 CFR Part 60, Subpart FFFF (guidelines for other solid waste incinerators constructed on or before December 9, 2004); or
  - (11) 40 CFR Part 60, Subpart HHHH (guidelines for coal-fired electric steam generating units.
- (c) Reserved.
- (d) New sources of volatile organic compounds that are located in an area designated in 40 CFR 81.334 as nonattainment for ozone or an area identified in accordance with Chapter 4 .0902 as being in violation of the ambient air quality standard for ozone shall comply with the requirements of 40 CFR Part 60 that are not excluded by this Rule, as well as with any applicable requirements in Section .0900 of this Chapter.
- (e) All requests, reports, applications, submittals, and other communications to the administrator required under Paragraph (a) of this Rule shall be submitted to the Director of the Agency rather than to the Environmental Protection Agency.
- (f) In the application of this Rule, definitions contained in 40 CFR Part 60 shall apply rather than those of Section .0100 of this Chapter.
- (g) With the exceptions allowed under Chapter 17 .0102, Activities Exempted from Permit Requirements, the owner or operator of the source shall apply for and receive a permit as required in Chapter 17 .0300 or .0500.

*NC DAQ History Note:*

*Temporary Amendment Eff. March 8, 1994, for a period of 180 days or until the permanent rule is effective, whichever is sooner;*  
*Temporary Amendment Eff. January 3, 1988, for a period of 180 days to expire on June 30, 1988; Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 150B-21.6;*  
*Eff. June 18, 1976;*

*Amended Eff. July 1, 2007; July 1, 2000; April 1, 1997; July 1, 1996; July 1, 1994; December 1, 1992; July 1, 1992.*

*WNCRAQA History Note: Adopted Eff. May 8, 2000  
Amended Eff. September 10, 2007; July 10, 2000*

**.0525 NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS  
(REPEALED)**

*NCDAQ History Note: Filed as a 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); 150B-21.6;  
Eff. June 18, 1976;  
Amended Eff. July 1, 1994; December 1, 1992; July 1, 1992; August 1, 1991;  
Repealed Eff. July 1, 1996.*

**.0526 SULFUR DIOXIDE EMISSIONS FROM FUEL BURNING INSTALLATIONS**

*NCDAQ History Note: Filed as an Emergency Regulation Eff. October 28, 1977, for a Period of 120 Days to Expire on February 25, 1978; Statutory Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 150A-13; Emergency Regulation Expired Eff. February 25, 1978.*

**.0527 EMISSIONS FROM SPODUMENE ORE ROASTING**

Emission 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.
- (2) 1.0 pound of sulfuric acid mist, expressed as H<sub>2</sub>SO<sub>4</sub>, per ton of ore roasted.

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

*WNCRAQA History Note: Adopted Eff. May 8, 2000*

**.0528 TOTAL REDUCED SULFUR FROM KRAFT PULP MILLS**

- (a) For the purpose of this Regulation, the following definitions apply:
- (1) "Total reduced sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, that are released during the kraft pulping operation.
  - (2) "Kraft pulp mill" means any facility that produces pulp from wood by cooking (digesting) wood chips in a water solution of sodium hydroxide and sodium sulfide (white liquor) at high temperature and pressure. Regeneration of cooking chemicals through a recovery process is also considered part of the kraft pulp mill.
  - (3) "Recovery furnace" means either a straight kraft recovery furnace or a cross recovery furnace and includes the direct-contact evaporator for a direct-contact furnace.
  - (4) "Cross recovery furnace" means a furnace used to recover chemicals consisting primarily of sodium and sulfur compounds by burning black liquor which on a quarterly basis contains more than seven percent by weight of the total pulp solids from the neutral sulfite semichemical process and has a green liquor sulfidity of more than 28 percent.
  - (5) "Straight kraft recovery furnace" means a furnace used to recover chemicals consisting primarily of sodium and sulfur compounds by burning black liquor which on a quarterly basis contains seven percent by weight or less of the total pulp solids from the neutral sulfite semichemical process or has green liquor sulfidity of 28 percent or less.
  - (6) "Old design recovery furnace" means a straight kraft recovery furnace that does not have membrane wall or welded wall construction or emission control designed air systems.
  - (7) "New design recovery furnace" means a straight kraft recovery furnace that has both membrane wall or welded wall construction and emission control designed air systems.
  - (8) "Neutral sulfite semichemical pulping operation" means any operation in which pulp is produced from wood by cooking (digesting) wood chips in a solution of sodium sulfite and sodium bicarbonate, followed by mechanical defibrating (grinding).
  - (9) "Digester system" means each continuous digester or each batch digester used for the cooking of wood in white liquor, and associated flash tanks, blow tanks, chip steamers and condensers.
  - (10) "Multiple-effect evaporator system" means the multiple-effect evaporators and associated condensers and hot wells used to concentrate the spent cooking liquid that is separated from the pulp (black liquor).
  - (11) "Lime kiln" means a unit used to calcine lime mud, which consists primarily of calcium carbonate, into quicklime, which is calcium oxide.
  - (12) "Condensate stripper system" means a column, and associated condensers, used to strip, with air or steam, total reduced sulfur compounds from condensate streams from various processes within a kraft pulp mill.



- (13) "Smelt dissolving tank" means a vessel used for dissolving the smelt collected from the recovery furnace.
- (14) "Black liquor solids" means the dry weight of the solids which enter the recovery furnace in the black liquor.
- (15) "Green liquor sulfidity" means the sulfidity of the liquor which leaves the smelt dissolving tank.

(b) This Regulation shall apply to recovery furnaces, digester systems, multiple-effect evaporator systems, lime kilns, smelt dissolving tanks, and condensate stripping systems of kraft pulp mills not subject to Regulation .0524 of this Section.

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

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

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

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

*NCDQA History Note:*                      *Statutory Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);  
Eff. June 1, 1980;  
Amended Eff. July 1, 1988; July 1, 1987; January 1, 1985;  
November 1, 1982.*

*WNCRAQA History Note:*                      *Adopted Eff. May 8, 2000*

**.0529 FLUORIDE EMISSIONS FROM PRIMARY ALUMINUM REDUCTION PLANTS**

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

- (1) "Fluoride" means elemental fluorine and all fluoride compounds as measured by the methods specified in Chapter 4 .2616 or by equivalent or alternative methods approved by the Director or his delegate. The Director may approve equivalent or alternative methods on an individual basis for sources or pollutants if equivalent or alternative methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
- (2) "Prebake cell" is an aluminum reduction pot which uses carbon anodes that are formed, pressed, and baked prior to their placement in the pot.
- (3) "Primary aluminum reduction plant" means any facility manufacturing aluminum by electrolytic reduction.

(b) This Rule shall apply to prebake cells at all primary aluminum reduction plants not subject to Rule .0524 of this Section.

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

- (1) 95 percent of the fluoride emissions are captured; and
- (2) 98.5 percent of the captured fluoride emissions are removed before the exhaust gas is discharged into the atmosphere.

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

- (1) ensure that hood covers are in good repair and positioned over the prebake cells;
- (2) minimize the amount of time that hood covers are removed during pot working operations;
- (3) if the hooding system is equipped with a dual low and high hood exhaust rate, use the high rate whenever hood covers are removed and return to the normal exhaust rate when the hood covers are replaced;
- (4) minimize the occurrence of fuming pots and correct the cause of a fuming pot as soon as practical; and
- (5) if the tapping crucibles are equipped with hoses which return aspirator air under the hood, ensure that the hoses are in good repair and that the air return system is functioning properly.

*NCDAQ History Note:*

*Statutory Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);  
Eff. June 1, 1981;  
Amended Eff. June 1, 2008; July 1, 1988; January 1, 1985.*

*WNCRAQA History Note:       Adopted Eff. May 8, 2000  
                                      Amended Eff. November 17, 2008.*

**.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 5-year period immediately preceding the date that a complete permit application is received by the Agency 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 Agency, 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 Agency 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;

- (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. A net emission increase or the potential of a source to emit nitrogen oxide emissions shall be significant if the rate of emissions would equal or exceed 140 tons per year. Sulfur dioxide and nitrogen oxides are precursor 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 that the following areas are 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(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 Western North Carolina Regional Air Quality Agency 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 SO<sub>2</sub>, regardless of applicability of the rest of this Rule.

(i) 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.

(j) Chapter 17 .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 Chapter 17 .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) 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 then.

(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.

(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 Chapter or Chapter 17 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 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 his satisfaction that an adverse impact on visibility will result in the Class I area, the Director shall provide in the notice of public hearing on the application, an explanation of his 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, 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).

(v) 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 and does not include any subsequent amendments or editions to the referenced material.

*NCDAQ History Note:* Filed as a 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)(3); 143-215.107(a)(5); 143-215.107(a)(7); 143-215.108(b); 150B-21.6; Eff. June 1, 1981; Amended Eff. January 2, 2011; September 1, 2010; May 1, 2008; July 28, 2006; July 1, 1997; February 1, 1995; July 1, 1994; December 1, 1992; August 1, 1991.

*WNCRAQA History Note:* Adopted Eff. May 8, 2000  
Amended Eff. March 14, 2011; July 14, 2008; September 11, 2006

#### **.0531 SOURCES IN NONATTAINMENT AREA (RESERVED)**

*NCDAQ History Note:* Filed as a 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); 143-215.108(b); Eff. June 1, 1981; Amended Eff. January 2, 2011; September 1, 2010, May 1, 2008; May 1, 2005; July 1, 1998; July 1, 1996; July 1, 1995; July 1, 1994; December 1, 1993.

#### **.0532 SOURCES CONTRIBUTING TO AN AMBIENT VIOLATION**

(a) This Rule applies to new major stationary sources and major modifications which are located in an area which is designated by the U.S. Environmental Protection Agency (EPA) to be an



attainment or unclassifiable area as of May 1, 1983, 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 Rule is not applicable to:

- (1) complex sources of air pollution that are regulated only under Section .0800 of this Chapter and not under any other rule of this Chapter;
- (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;
- (5) a new or modified source whose impact will increase not more than:
  - (A) 1.0 ug/m<sup>3</sup> of SO<sub>2</sub> on an annual basis,
  - (B) 5 ug/m<sup>3</sup> of SO<sub>2</sub> on a 24-hour basis,
  - (C) 25 ug/m<sup>3</sup> of SO<sub>2</sub> on a 3-hour basis,
  - (D) 1.0 ug/m<sup>3</sup> of total suspended particulates on an annual basis,
  - (E) 5 ug/m<sup>3</sup> of total suspended particulates on a 24-hour basis,
  - (F) 1.0 ug/m<sup>3</sup> of NO<sub>2</sub> on an annual basis,
  - (G) 0.5 mg/m<sup>3</sup> of carbon monoxide on an 8-hour basis,
  - (H) 2 mg/m<sup>3</sup> of carbon monoxide on a one-hour basis,
  - (I) 1.0 ug/m<sup>3</sup> of PM<sub>10</sub> on an annual basis, or
  - (J) 5 ug/m<sup>3</sup> of PM<sub>10</sub> 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;
- (8) temporary emission sources which will be relocated within two years; and
- (9) emissions resulting from the construction phase of the source.

(d) Chapter 17 .0102 and .0302 are not applicable to any source to which this Rule applies. The owner or operator of the source shall apply for and receive a permit as required in Chapter 17 .0300 or .0500.

(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 Agency's area of influence 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 Chapter 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 Part (e)(3) of Rule .0531 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., the applicant will have caused an air quality 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 Part 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 Part;
- (ii) the applicant has secured all available air quality 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 or modification.
- (g) The version of the Code of Federal Regulations incorporated in this Rule is that as of January 1, 1989, and does not include any subsequent amendments or editions to the referenced material.

*NCDAQ History Note:*

*Filed as a Temporary Amendment Eff. March 8, 1994 for a Period of 180 Days or Until the Permanent Rule is Effective, Whichever is*

*Sooner; Statutory Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.108(b); 150B-21.6;  
Eff. June 1, 1981;  
Amended Eff. July 1, 1994; December 1, 1992; August 1, 1991;  
October 1, 1989; July 1, 1988; October 1, 1987; January 1, 1985;  
February 1, 1983.*

*WNCRAQA History Note: Adopted Eff. May 8, 2000.*

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