

15A NCAC 02D .2609 PARTICULATE TESTING METHODS

(a) Except as allowed by Paragraph (b) of this Rule, Method 5 of Appendix A to 40 CFR Part 60 and Method 202 of Appendix M to 40 CFR Part 51 shall be used to demonstrate compliance with particulate emission standards. The owner or operator may request an exemption from using Method 202 and the Director shall approve the exemption if the Director determines the demonstration of compliance with an applicable emission standard is unlikely to change with or without the Method 202 results included.

(b) Method 17 of Appendix A to 40 CFR Part 60 may be used instead of Method 5 if:

- (1) the stack gas temperature does not exceed 320° F;
- (2) particulate matter concentrations are known to be independent of temperature over the normal range of temperatures characteristic of emissions from a specified source category; and
- (3) the stack does not contain liquid droplets or is not saturated with water vapor.

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

- (1) If the soot blowing periods are expected to represent less than 50 percent of the total particulate emissions, only one of the test runs shall include a soot blowing cycle.
- (2) If the soot blowing periods are expected to represent more than 50 percent of the total particulate emissions, two of the test runs shall each include a soot blowing cycle. No more than two of the three test runs shall include soot blowing.
- (3) The average emission rate of particulate matter for steam generators that use soot blowing shall be calculated by the equation:

$$E_{AVG} = (S * E_S)[(A + B)/(A * R)] + E_N[(R - S)/R] - (B * S)/(A * R)]$$

where:

E_{AVG} = the average emission rate in pounds per million Btu for daily operating time;

E_S = the average emission rate in pounds per million Btu during soot blowing runs;

E_N = the average emission rate in pounds per million Btu during non-soot blowing runs;

A = number of hours of soot blowing during soot blowing runs;

B = number of hours without soot blowing during soot blowing runs;

R = average number of hours of operation per 24 hours; and

S = average number of hours of soot blowing per 24 hours.

- (4) The Director may approve an alternate method of prorating the emission rate during soot blowing if the owner or operator of the source demonstrates that changes in boiler load or stack flow occurred during soot blowing that are not representative of normal soot blowing operations.

(d) Unless otherwise specified by an applicable rule or federal subpart, the minimum time per test point for particulate testing shall be two minutes and the minimum time per test run shall be one hour.

(e) Unless otherwise specified by an applicable rule or federal subpart, the sample gas drawn during each test run shall be at least 30 dry standard cubic feet.

(f) Method 201 in combination with Method 202 of Appendix M to 40 CFR Part 51 or Method 201A in combination with Method 202 of Appendix M to 40 CFR Part 51 shall be used to determine compliance with PM2.5 or PM10 emission standards. If the exhaust gas contains entrained moisture droplets, Method 5 of Appendix A of 40 CFR Part 60 in combination with Method 202 of Appendix M to 40 CFR Part 51 shall be used to determine PM2.5 or PM10 emission compliance.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5);
Eff. June 1, 2008;
Readopted Eff. November 1, 2019.