

## **APPENDIX 20 MONITORING, RECORDKEEPING, REPORTING**

### **FUEL ANALYSES**

#### **Sulfur Content**

In **15A NCAC 2D .0501(c)(4)** the specified time periods apply only where fuel samples are taken for compliance with the ambient air quality standards for sulfur dioxide in **15A NCAC 2D .0402**.

When samples are taken for compliance with the emission standards for sulfur dioxide in **15A NCAC 2D .0516**, the time periods in **2D .0501(c)(4)** do not apply.

The remainder of **2D .0501(c)(4)** applies for both purposes for sampling.

### **COMPLIANCE ASSURANCE MONITORING**

The compliance assurance monitoring (CAM) rule applies to each pollutant specific emission unit (PSEU) that meets these three conditions:

1. The PSEU must be subject to an emission limitation or standard;
2. The PSEU must use a control device to achieve compliance; and
3. The PSEU must have pre-control emissions that exceed or are equivalent to the major source threshold.

The term “control device” means equipment, other than inherent process equipment, that is used to destroy or remove air pollutants before discharge to the atmosphere. The term “control device” does not include passive

methods such as lids or seals or inherent process equipment provided for safety or material recovery. (See 40 CFR 64.2(a))<sup>~</sup>

The following pollutant specific emission units are excluded from the compliance assurance monitoring rules:

1. those subject to 111 (NSPS) or 112 (NESHAP, MACT) standards promulgated after November 15, 1990, since these standards have been and will be designed with monitoring that provides a reasonable assurance of compliance;
2. those subject to the acid rain program, emissions trading programs such as the acid rain program, emissions caps like those provided in the Intel P4 permit, or continuous compliance determination methods, i.e., where a regulatory requirement specifies a monitoring method for compliance, because compliance assurance monitoring is believed to be redundant for these units (the permitting authorities should ensure that these units have or get monitoring sufficient for trading emission credits in the proper currency);
3. certain municipally-owned utility units, as defined in 40 CFR 72.2, that produce electricity during periods of peak electrical demand or emergency situations since these periods or situations are infrequent.

(See 40 CFR 64.2(b))<sup>†</sup>

The compliance assurance monitoring rule aims to have owners and operators maintain their control devices at the level that assures compliance. The rule allows owners and operators to design compliance assurance monitoring plans on current requirements and operating practices, to select representative parameters on which compliance can be assured, to establish indicator ranges—or procedures for setting the indicator ranges—for the parameters, to use performance testing and other information to verify the parameters and ranges, and to correct control device performance problems as expeditiously as practicable. (See 40 CFR 64.3 and 64.7)<sup>‡</sup>

The compliance assurance plan must:

1. describe the indicators to be monitored;
2. describe the ranges or the process to set indicator ranges;

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<sup>~</sup> Steven J. Hitte to Air Program Manager, Region I-X, "Compliance Assurance Monitoring Rule Implementation Questions and Responses," 8 Jan. 1998, p. 3 (memorandum).

<sup>†</sup> *Ibid.*, p. 3.

<sup>‡</sup> *Ibid.*, p. 4.

3. describe the performance criteria for monitoring, including:
    - a. specifications for obtaining representative data,
    - b. verification procedures to confirm the monitoring's operational status,
    - c. quality assurance and control procedures,
    - d. monitoring frequency, which shall be at least:
      - A. four times per hour (minimum) if post control emissions are equal to or exceed the major source threshold, or
      - B. one time per day (minimum) if post control emissions are less than the major source threshold;
  4. provide a justification for the use of parameters, ranges, and monitoring approach;
  5. provide emissions test data; and
  6. provide, if necessary, an implementation plan for installing, testing, and operating the monitoring equipment.
- (See 40 CFR 64.4) Permits are required to have the following items:
1. the approved monitoring approach, including the indicators—or the means to measure the indicators—to be monitored;
  2. a definition of exceedance or excursions;
  3. the duty to conduct monitoring;
  4. minimum data availability and averaging period requirements; and
  5. milestones for testing, installation, or final verification.

(See 40 CFR 64.6(c))<sup>-</sup>

The compliance assurance monitoring plans can be revised using the permit modification process in **15A NCAC 2Q .0500** (See 40 CFR 64.7(e)). Revisions to indicator ranges can occur without using the Title V permitting procedures, provided that the permittee has submitted and the Division of Air Quality has approved as part of the compliance assurance monitoring plan an indicator or indicator range setting process (See 40 CFR 64.4(a)(2)).<sup>†</sup>

If a possible exception to compliance is reported to the Division of Air Quality, the Division should investigate to determine if a violation occurred and potentially use the information to bring an enforcement action for a violation. Permittees are to make every effort to minimize any periods that exceedances, excursions, or deviations occur (See 40 CFR 64.7(d)). Should the Division determine that the permittee has not reacted appropriately, it may require the permittee to implement a quality improvement plan (QIP).

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<sup>-</sup>*Ibid.*, p. 4.

<sup>†</sup>*Ibid.*, pp. 7-8.

A quality improvement plan shall include the procedures for evaluating control performance problems as well as improved preventive maintenance practices, process operation changes, improvements to control methods, and more frequent or improved monitoring (See 40 CFR 64.8).<sup>~</sup>

The compliance assurance monitoring rule does not require the Division of Air Quality to develop compliance assurance monitoring plans if a permit applicant fails to provide an approvable plan. However, the compliance assurance monitoring rule does require the Division to provide monitoring that satisfies the requirements of 40 CFR Part 70 and a compliance schedule for providing an approvable compliance assurance monitoring plan within 180 days (See 40 CFR 64.6(e)(3)).<sup>†</sup>

## AVERAGING TIME

For sources covered under **15A NCAC 2D .0606** or **.0608**, a 24-hour block average is used when a continuous emission monitor is used to show emission of and compliance with sulfur dioxide or nitrogen oxide standards. If a reference test method is used to measure emissions of sulfur dioxide or nitrogen oxides, the averaging time is the time required to do the test, normally about three hours.<sup>‡</sup>

Likewise, when compliance determinations are made for rules **15A NCAC 2D .1407** (Boilers and Indirect-Fired Process Heaters), **.1408** (Stationary Combustion Turbines), **.1409** (Stationary Internal Combustion Engines), and **.1413** (Sources Not Otherwise Listed in [the nitrogen oxide emission standards] Section) using a continuous emission monitor, a 24-hour block average is used to show compliance. If a reference test method is used to show compliance with these four nitrogen oxide rules, the averaging time is the time required to do the test, normally about three hours.

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<sup>~</sup>*Ibid.*, p. 14.

<sup>†</sup>*Ibid.*, p. 14.

<sup>‡</sup>Thom Allen to Donald van der Vaart, "Averaging Time," 26 July 2001 (e-mail).

## **SOURCES COVERED BY APPENDIX P OF 40 CFR PART 52: 15A NCAC 2D .0606**

Rule **15A NCAC 2D .0606** applies to sources that are not covered under a new source performance standard and that has a control device for particulate, sulfur dioxide, or nitrogen oxides. It only applies to the pollutant for which there is a control device.

## **OTHER LARGE COAL OR RESIDUAL OIL BURNERS: 15A NCAC 2D .0608**

Rule **15A NCAC 2D .0608** applies to fuel burning units that are not covered under a new source performance standard, that do not have a control device for sulfur dioxide, that have a heat input greater than 250 million Btu/hr, and that have an annual average capacity factor greater than 30 percent. The key difference between the applicability of **15A NCAC 2D .0608** and **15A NCAC 2D .0606** is that **2D .0606** applies to sources with control devices for sulfur dioxide and **2D .0608** applies to sources without control devices for sulfur dioxide.