

status is revoked prospectively by the Administrator. The data measured and recorded by each system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests. The owner or operator shall follow the procedures in § 75.20(a)(5) for initial certification or § 75.20(b)(5) for recertification to replace, prospectively, all of the invalid, non-quality-assured data for each disapproved system.

(2) *Out-of-control period.* Whenever a continuous emission monitoring system or continuous opacity monitoring system fails a quality assurance audit or any other audit, the system is out-of-control. The owner or operator shall follow the procedures for out-of-control periods in § 75.24.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26527, 26566, May 17, 1995; 61 FR 25582, May 22, 1996; 61 FR 59159, Nov. 20, 1996; 64 FR 28599, May 26, 1999; 67 FR 40433, June 12, 2002; 67 FR 53505, Aug. 16, 2002; 70 FR 28679, May 18, 2005; 73 FR 4345, Jan. 24, 2008]

§ 75.22 Reference test methods.

(a) The owner or operator shall use the following methods, which are found in appendix A–4 to part 60 of this chapter or have been published by ASTM, to conduct the following tests: monitoring system tests for certification or recertification of continuous emission monitoring systems and excepted monitoring systems under appendix E to this part; the emission tests required under § 75.81(c) and (d); and required quality assurance and quality control tests:

(1) Methods 1 or 1A are the reference methods for selection of sampling site and sample traverses.

(2) Method 2 or its allowable alternatives, as provided in appendix A to part 60 of this chapter, except for Methods 2B and 2E, are the reference methods for determination of volumetric flow.

(3) Methods 3, 3A, or 3B are the reference methods for the determination of the dry molecular weight O₂ and CO₂ concentrations in the emissions.

(4) Method 4 (either the standard procedure described in section 8.1 of the method or the moisture approximation procedure described in section 8.2 of the method) shall be used to correct pollutant concentrations from a dry basis to a wet basis (or from a wet basis to a dry basis) and shall be used when relative accuracy test audits of continuous moisture monitoring systems are conducted. For the purpose of determining the stack gas molecular weight, however, the alternative wet bulb-dry bulb technique for approximating the stack gas moisture content described in section 2.2 of Method 4 may be used in lieu of the procedures in sections 8.1 and 8.2 of the method.

(5) Methods 6, 6A, 6B or 6C, and 7, 7A, 7C, 7D or 7E in appendix A–4 to part 60 of this chapter, as applicable, are the reference methods for determining SO₂ and NO_x pollutant concentrations. (Methods 6A and 6B in appendix A–4 to part 60 of this chapter may also be used to determine SO₂ emission rate in lb/mmBtu.) Methods 7, 7A, 7C, 7D, or 7E in appendix A–4 to part 60 of this chapter must be used to measure total NO_x emissions, both NO and NO₂, for purposes of this part. The owner or operator shall not use the following sections, exceptions, and options of method 7E in appendix A–4 to part 60 of this chapter:

(i) Section 7.1 of the method allowing for use of prepared calibration gas mixtures that are produced in accordance with method 205 in Appendix M of 40 CFR Part 51;

(ii) The sampling point selection procedures in section 8.1 of the method, for the emission testing of boilers and combustion turbines under appendix E to this part. The number and location of the sampling points for those applications shall be as specified in sections 2.1.2.1 and 2.1.2.2 of appendix E to this part;

(iii) Paragraph (3) in section 8.4 of the method allowing for the use of a multi-hole probe to satisfy the multipoint traverse requirement of the method;

(iv) Section 8.6 of the method allowing for the use of “Dynamic Spiking” as an alternative to the interference and system bias checks of the method. Dynamic spiking may be conducted

(optionally) as an additional quality assurance check.

(6) Method 3A in appendix A-2 and method 7E in appendix A-4 to part 60 of this chapter are the reference methods for determining NO_x and diluent emissions from stationary gas turbines for testing under appendix E to this part.

(7) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method) (incorporated by reference under § 75.6 of this part) is the reference method for determining Hg concentration.

(i) Alternatively, Method 29 in appendix A-8 to part 60 of this chapter may be used, with these caveats: The procedures for preparation of Hg standards and sample analysis in sections 13.4.1.1 through 13.4.1.3 ASTM D6784-02 (incorporated by reference under § 75.6 of this part) shall be followed instead of the procedures in sections 7.5.33 and 11.1.3 of Method 29 in appendix A-8 to part 60 of this chapter, and the QA/QC procedures in section 13.4.2 of ASTM D6784-02 (incorporated by reference under § 75.6 of this part) shall be performed instead of the procedures in section 9.2.3 of Method 29 in appendix A-8 to part 60 of this chapter. The tester may also opt to use the sample recovery and preparation procedures in ASTM D6784-02 (incorporated by reference under § 75.6 of this part) instead of the Method 29 in appendix A-8 to part 60 of this chapter procedures, as follows: sections 8.2.8 and 8.2.9.1 of Method 29 in appendix A-8 to part 60 of this chapter may be replaced with sections 13.2.9.1 through 13.2.9.3 of ASTM D6784-02 (incorporated by reference under § 75.6 of this part); sections 8.2.9.2 and 8.2.9.3 of Method 29 in appendix A-8 to part 60 of this chapter may be replaced with sections 13.2.10.1 through 13.2.10.4 of ASTM D6784-02 (incorporated by reference under § 75.6 of this part); section 8.3.4 of Method 29 in appendix A-8 to part 60 of this chapter may be replaced with section 13.3.4 or 13.3.6 of ASTM D6784-02 (as appropriate) (incorporated by reference under § 75.6 of this part); and section 8.3.5 of Method 29 in appendix A-8 to part 60 of this chapter may be replaced with section 13.3.5 or 13.3.6 of

ASTM D6784-02 (as appropriate) (incorporated by reference under § 75.6 of this part).

(ii) Whenever ASTM D6784-02 (incorporated by reference under § 75.6 of this part) or Method 29 in appendix A-8 to part 60 of this chapter is used, paired sampling trains are required. To validate a RATA run or an emission test run, the relative deviation (RD), calculated according to section 11.7 of appendix K to this part, must not exceed 10 percent, when the average concentration is greater than 1.0 µg/m³. If the average concentration is ≤ 1.0 µg/m³, the RD must not exceed 20 percent. The RD results are also acceptable if the absolute difference between the Hg concentrations measured by the paired trains does not exceed 0.03 µg/m³. If the RD criterion is met, the run is valid. For each valid run, average the Hg concentrations measured by the two trains (vapor phase, only).

(iii) Two additional reference methods that may be used to measure Hg concentration are: Method 30A, "Determination of Total Vapor Phase Mercury Emissions from Stationary Sources (Instrumental Analyzer Procedure)" and Method 30B, "Determination of Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps".

(iv) When Method 29 in appendix A-8 to part 60 of this chapter or ASTM D6784-02 (incorporated by reference under § 75.6 of this part) is used for the Hg emission testing required under §§ 75.81(c) and (d), locate the reference method test points according to section 8.1 of Method 30A, and if Hg stratification testing is part of the test protocol, follow the procedures in sections 8.1.3 through 8.1.3.5 of Method 30A.

(b) The owner or operator may use any of the following methods, which are found in appendix A to part 60 of this chapter or have been published by ASTM, as a reference method backup monitoring system to provide quality-assured monitor data:

(1) Method 3A for determining O₂ or CO₂ concentration;

(2) Method 6C for determining SO₂ concentration;

(3) Method 7E for determining total NO_x concentration (both NO and NO₂);

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(4) Method 2, or its allowable alternatives, as provided in appendix A to part 60 of this chapter, except for Methods 2B and 2E, for determining volumetric flow. The sample point(s) for reference methods shall be located according to the provisions of section 6.5.5 of appendix A to this part.

(5) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method) (incorporated by reference under § 75.6 of this part) for determining Hg concentration;

(6) Method 29 in appendix A-8 to part 60 of this chapter for determining Hg concentration;

(7) Method 30A for determining Hg concentration; and

(8) Method 30B for determining Hg concentration.

(c)(1) Instrumental EPA Reference Methods 3A, 6C, and 7E in appendices A-2 and A-4 of part 60 of this chapter shall be conducted using calibration gases as defined in section 5 of appendix A to this part. Otherwise, performance tests shall be conducted and data reduced in accordance with the test methods and procedures of this part unless the Administrator:

(i) Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;

(ii) Approves the use of an equivalent method; or

(iii) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors.

(2) Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under Section 114 of the Act.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26528, May 17, 1995; 64 FR 28600, May 26, 1999; 67 FR 40433, June 12, 2002; 67 FR 53505, Aug. 16, 2002; 70 FR 28679, May 18, 2005; 73 FR 4345, Jan. 24, 2008]

§ 75.23 Alternatives to standards incorporated by reference.

(a) The designated representative of a unit may petition the Administrator for an alternative to any standard incorporated by reference and prescribed

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in this part in accordance with § 75.66(c).

(b) [Reserved]

[60 FR 26528, May 17, 1995]

§ 75.24 Out-of-control periods and adjustment for system bias.

(a) If an out-of-control period occurs to a monitor or continuous emission monitoring system, the owner or operator shall take corrective action and repeat the tests applicable to the "out-of-control parameter" as described in appendix B of this part.

(1) For daily calibration error tests, an out-of-control period occurs when the calibration error of a pollutant concentration monitor exceeds the applicable specification in section 2.1.4 of appendix B to this part.

(2) For quarterly linearity checks, an out-of-control period occurs when the error in linearity at any of three gas concentrations (low, mid-range, and high) exceeds the applicable specification in appendix A to this part.

(3) For relative accuracy test audits, an out-of-control period occurs when the relative accuracy exceeds the applicable specification in appendix A to this part.

(b) When a monitor or continuous emission monitoring system is out-of-control, any data recorded by the monitor or monitoring system are not quality-assured and shall not be used in calculating monitor data availabilities pursuant to § 75.32 of this part.

(c) When a monitor or continuous emission monitoring system is out-of-control, the owner or operator shall take one of the following actions until the monitor or monitoring system has successfully met the relevant criteria in appendices A and B of this part as demonstrated by subsequent tests:

(1) Apply the procedures for missing data substitution to emissions from affected unit(s); or

(2) Use a certified backup monitoring system or a reference method for measuring and recording emissions from the affected unit(s); or

(3) Adjust the gas discharge paths from the affected unit(s) with emissions normally observed by the out-of-control monitor or monitoring system so that all exhaust gases are monitored by a certified monitor or monitoring