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CPMS according to the manufacturer's specifications.

(i) For a FCCU or FCU with no post-combustion control device, the temperature and O₂ concentration of the exhaust gas stream exiting the unit.

(ii) For a FCCU or FCU with a post-combustion control device, the temperature and O₂ concentration of the exhaust gas stream exiting the control device.

(i) *Excess emissions.* For the purpose of reports required by § 60.7(c), periods of excess emissions for a FCCU or FCU subject to the emissions limitations in § 60.102a(b) are defined as specified in paragraphs (i)(1) through (6) of this section. Note: Determine all averages, except for opacity, as the arithmetic average of the applicable 1-hour averages, e.g., determine the rolling 3-hour average as the arithmetic average of three contiguous 1-hour averages.

(1) If a CPMS is used according to § 60.105a(b)(1), all 3-hour periods during which the average PM control device operating characteristics, as measured by the continuous monitoring systems under § 60.105a(b)(1), fall below the levels established during the performance test.

(2) If a PM CEMS is used according to § 60.105a(d), all 7-day periods during which the average PM emission rate, as measured by the continuous PM monitoring system under § 60.105a(d) exceeds 0.040 gr/dscf corrected to 0 percent excess air for a modified or reconstructed FCCU, 0.020 gr/dscf corrected to 0 percent excess air for a newly constructed FCCU, or 0.040 gr/dscf for an affected fluid coking unit.

(3) If a COMS is used according to § 60.105a(e), all 3-hour periods during which the average opacity, as measured by the COMS under § 60.105a(e), exceeds the site-specific limit established during the most recent performance test.

(4) All rolling 7-day periods during which the average concentration of NO_x as measured by the NO_x CEMS under § 60.105a(f) exceeds 80 ppmv for an affected FCCU or FCU.

(5) Except as provided in paragraph (i)(7) of this section, all rolling 7-day periods during which the average concentration of SO₂ as measured by the SO₂ CEMS under § 60.105a(g) exceeds 50

ppmv, and all rolling 365-day periods during which the average concentration of SO₂ as measured by the SO₂ CEMS exceeds 25 ppmv.

(6) All 1-hour periods during which the average CO concentration as measured by the CO continuous monitoring system under § 60.105a(h) exceeds 500 ppmv or, if applicable, all 1-hour periods during which the average temperature and O₂ concentration as measured by the continuous monitoring systems under § 60.105a(h)(4) fall below the operating limits established during the performance test.

§ 60.106a Monitoring of emissions and operations for sulfur recovery plants.

(a) The owner or operator of a sulfur recovery plant that is subject to the emissions limits in § 60.102a(f)(1) or § 60.102a(f)(2) shall:

(1) For sulfur recovery plants subject to the SO₂ emission limit in § 60.102a(f)(1)(i) or § 60.102a(f)(2)(i), the owner or operator shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of any SO₂ emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air.

(i) The span values for this monitor are two times the applicable SO₂ emission limit and between 10 and 25 percent O₂, inclusive.

(ii) The owner or operator shall install, operate, and maintain each SO₂ CEMS according to Performance Specification 2 of Appendix B to part 60.

(iii) The owner or operator shall conduct performance evaluations of each SO₂ monitor according to the requirements in § 60.13(c) and Performance Specification 2 of Appendix B to part 60. The owner or operator shall use Methods 6 or 6C of Appendix A–4 to part 60 and Method 3 or 3A of Appendix A–2 of part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses,” (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 6.

(2) For sulfur recovery plants that are subject to the reduced sulfur compound and H₂S emission limit in § 60.102a(f)(1)(ii) or § 60.102a(f)(2)(ii), the owner or operator shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration of reduced sulfur, H₂S, and O₂ emissions into the atmosphere. The reduced sulfur emissions shall be calculated as SO₂ (dry basis, zero percent excess air).

(i) The span values for this monitor are two times the applicable reduced sulfur emission limit, two times the H₂S emission limit, and between 10 and 25 percent O₂, inclusive.

(ii) The owner or operator shall install, operate, and maintain each reduced sulfur CEMS according to Performance Specification 5 of Appendix B to part 60.

(iii) The owner or operator shall conduct performance evaluations of each reduced sulfur monitor according to the requirements in § 60.13(c) and Performance Specification 5 of Appendix B to part 60. The owner or operator shall use Methods 15 or 15A of Appendix A-5 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 15A of Appendix A-5 to part 60.

(iv) The owner or operator shall install, operate, and maintain each H₂S CEMS according to Performance Specification 7 of Appendix B to part 60.

(v) The owner or operator shall conduct performance evaluations of each reduced sulfur monitor according to the requirements in § 60.13(c) and Performance Specification 5 of Appendix B to part 60. The owner or operator shall use Methods 11, 15, or 15A of Appendix A-5 to part 60 or Method 16 of Appendix A-6 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 15A of Appendix A-5 to part 60.

(vi) The owner or operator shall install, operate, and maintain each O₂ monitor according to Performance

Specification 3 of Appendix B to part 60.

(vii) The span value for the O₂ monitor must be selected between 10 and 25 percent, inclusive.

(viii) The owner or operator shall conduct performance evaluations for the O₂ monitor according to the requirements of § 60.13(c) and Performance Specification 3 of Appendix B to part 60. The owner or operator shall use Methods 3, 3A, or 3B of Appendix A-2 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 3B of Appendix A-2 to part 60.

(ix) The owner or operator shall comply with the applicable quality assurance procedures of Appendix F to part 60 for each monitor, including annual accuracy determinations for each O₂ monitor, and daily calibration drift determinations.

(3) In place of the reduced sulfur monitor required in paragraph (a)(2) of this section, the owner or operator shall install, calibrate, operate, and maintain an instrument using an air or O₂ dilution and oxidation system to convert any reduced sulfur to SO₂ for continuously monitoring and recording the concentration (dry basis, 0 percent excess air) of the total resultant SO₂. The monitor must include an O₂ monitor for correcting the data for excess O₂.

(i) The span value for this monitor is two times the applicable SO₂ emission limit.

(ii) The owner or operator shall conduct performance evaluations of each SO₂ monitor according to the requirements in § 60.13(c) and Performance Specification 5 of Appendix B to part 60. The owner or operator shall use Methods 15 or 15A of Appendix A-5 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 15A of Appendix A-5 to part 60.

(iii) The owner or operator shall install, operate, and maintain each O₂ monitor according to Performance

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Specification 3 of Appendix B to part 60.

(iv) The span value for the O₂ monitor must be selected between 10 and 25 percent, inclusive.

(v) The owner or operator shall conduct performance evaluations for the O₂ monitor according to the requirements of § 60.13(c) and Performance Specification 3 of Appendix B to part 60. The owner or operator shall use Methods 3, 3A, or 3B of Appendix A-2 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 3B of Appendix A-2 to part 60.

(vi) The owner or operator shall comply with the applicable quality assurance procedures of Appendix F to part 60 for each monitor, including quarterly accuracy determinations for each SO₂ monitor, annual accuracy determinations for each O₂ monitor, and daily calibration drift determinations.

(b) *Excess emissions.* For the purpose of reports required by § 60.7(c), periods of excess emissions for sulfur recovery plants subject to the emissions limitations in § 60.102a(f) are defined as specified in paragraphs (b)(1) through (3) of this section. NOTE: Determine all averages as the arithmetic average of the applicable 1-hour averages, e.g., determine the rolling 12-hour average as the arithmetic average of 12 contiguous 1-hour averages.

(1) All 12-hour periods during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system required under paragraph (a)(1) of this section exceeds the applicable emission limit (dry basis, zero percent excess air); or

(2) All 12-hour periods during which the average concentration of reduced sulfur (as SO₂) as measured by the reduced sulfur continuous monitoring system required under paragraph (a)(2) of this section exceeds the applicable emission limit; or

(3) All 12-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system required under paragraph (a)(2) of this section exceeds the

applicable emission limit (dry basis, 0 percent excess air).

§ 60.107a Monitoring of emissions and operations for fuel gas combustion devices.

(a) *Fuel gas combustion devices subject to SO₂ or H₂S limit.* The owner or operator of a fuel gas combustion device that is subject to the requirements in § 60.102a(g) shall comply with the requirements in paragraph (a)(1) of this section for SO₂ emissions or paragraph (a)(2) of this section for H₂S emissions.

(1) The owner or operator of a fuel gas combustion device subject to the SO₂ emissions limits in § 60.102a(g)(1)(i) shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration (dry basis, 0 percent excess air) of SO₂ emissions into the atmosphere. The monitor must include an O₂ monitor for correcting the data for excess air.

(i) The owner or operator shall install, operate, and maintain each SO₂ monitor according to Performance Specification 2 of Appendix B to part 60. The span value for the SO₂ monitor is 50 ppm SO₂.

(ii) The owner or operator shall conduct performance evaluations for the SO₂ monitor according to the requirements of § 60.13(c) and Performance Specification 2 of Appendix B to part 60. The owner or operator shall use Methods 6, 6A, or 6C of Appendix A-4 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 6 or 6A of Appendix A-4 to part 60. Samples taken by Method 6 of Appendix A-4 to part 60 shall be taken at a flow rate of approximately 2 liters/min for at least 30 minutes. The relative accuracy limit shall be 20 percent or 4 ppm, whichever is greater, and the calibration drift limit shall be 5 percent of the established span value.

(iii) The owner or operator shall install, operate, and maintain each O₂ monitor according to Performance Specification 3 of Appendix B to part 60. The span value for the O₂ monitor