

(d) Compliance Assurance Monitoring (CAM).

- (1) Except for emission units that are exempt under 30 TAC § 122.604(c) and (d), (Compliance Assurance Monitoring Applicability) as specified in (2) of this section, CAM applies to an emission unit at a major source subject to this chapter provided the following criteria:
 - (A) The emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement;
 - (B) The emission unit uses a control device to achieve compliance with the emission limitation or standard; and
 - (C) The emission unit has the pre-control device potential to emit greater than or equal to the amount in tons per year required for a site to be classified as a major source.
- (2) CAM shall not apply to any of the following:
 - (A) Emission limitations or standards proposed by the United States Environmental Protection Agency (EPA) after November 15, 1990, under the Federal Clean Air Act (FCAA) § 111 (Standards of Performance for New Stationary Sources) or FCAA § 112 (Hazardous Air Pollutants);
 - (B) Emission limitations or standards under FCAA, Title IV-A (Acid Deposition Control);
 - (C) Emission limitations or standards under FCAA, Title VI (Stratospheric Ozone Protection);
 - (D) Emission limitations or standards that apply solely under an emissions trading program approved or promulgated by the EPA under the FCAA that allows for trading emissions;
 - (E) Emission caps that meet the requirements specified in 40 Code of Federal Regulations (CFR) § 70.4(b)(12) (State Program Submittals and Transition);
 - (F) Other emission limitations or standards specified as exempt by EPA;
 - (G) Emission limitations or standards for which an applicable requirement specifies a continuous compliance determination method, unless the applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device (such as a surface coating line controlled by an incinerator for which continuous compliance is determined by calculating emissions on the basis of coating records and an assumed control device efficiency factor based on an initial performance test); or
 - (H) A utility unit, as defined in 40 CFR § 72.2 (Definitions), that is municipally-owned if the permit holder documents in a permit application the following:
 - (i) The utility is exempt from all monitoring requirements in 40 CFR Part 75 (Continuous Emission Monitoring) (including the appendices);
 - (ii) The utility unit is operated for the sole purpose of providing electricity during periods of peak electrical demand or emergency situations, as demonstrated by historical operating data and relevant contractual obligation, and will be operated consistent with that purpose throughout the permit term; and
 - (iii) The actual emissions from the utility unit, based on the average annual emissions over the last three calendar years of operation (or the total time the unit has been in operation for a unit in operation less than three years), are less than 50 percent of the amount in tons per year required for a site to be classified as a major source and are expected to remain so.

- (3) Applicability for CAM must be determined on a pollutant-by-pollutant basis; therefore, all of the criteria in (d)(1) and (d)(2) of this General Operating Permit (GOP) must be satisfied for a particular pollutant for each emission unit to be subject to CAM for that pollutant.
 - (4) A Form [OP-MON](#) (Monitoring Requirements) must be submitted for each monitoring option chosen. This form must include the pollutant being monitored, control device, deviation limit, and monitoring option used. Unless the deviation limit is specifically defined by the monitoring option (for example, 1,500 degrees Fahrenheit), a proposed deviation limit, and a justification for the proposed deviation limit must be submitted on the Form OP-MON. If the deviation limit changes, for example due to recent testing, the GOP application must be revised with a new Form OP-MON for that option. Additional instructions for the addition of CAM into the application may be reviewed in the Oil and Gas GOP Statement of Basis and the Compliance Assurance Monitoring guidance document located at www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html.
 - (5) Small units are those with a pre-control device potential to emit greater than the major source thresholds, but post-control device potential to emit less than the major source thresholds.
 - (6) Large units are those with a pre-control device and post-control device potential to emit greater than the major source thresholds.
 - (7) “Small/Large” options are appropriate for both small and large units. Large units must always use the monitoring options with the designation of “Small/Large.” Small units have the option of using monitoring options with either a “Small” or “Small/Large” designation.
- (e) Compliance Assurance Monitoring Option Tables.

Control Device: Non-Selective Catalytic Reduction (Catalytic Converters)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-017
Nitrogen Oxides (NO _x) Concentration	Small	<p>Use method specified in 30 TAC § 117.8000(c)(1), (3), (5), and (6) (Stack Testing Requirements) to stack test the unit for NO_x emissions.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a*	CAMG-OG-CC-018

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Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data</p>	four times per hour	one hour	CAMG-OG-CC-019
NO _x Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(c)(1), (3), (5), and (6) to stack test the unit for NO_x emissions.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-020

Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-021
NO _x Concentration	Small	<p>Use Reference Method 7E or 20 to stack test the unit for NO_x emissions on a biennial calendar basis. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-022

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Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
4. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-023
NO _x Concentration	Small/Large	<p>Use Reference Method 7E or 20 to stack test the unit for NO_x emissions on a biennial calendar basis. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-024

Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
5. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-025
NO _x Concentration	Small	<p>Use method specified in 30 TAC § 117.8000(c)(1), (3), (5), and (6) to stack test the unit for NO_x emissions within 15,000 hours of operation after the previous emission test. Note that the conditions of 30 TAC § 117.8140(a)(2)(B)(i) and (ii) (Emission Monitoring for Engines) apply.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-026

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Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
6. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-027
NO _x Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(c)(1), (3), (5), and (6) to stack test the unit for NO_x emissions within 15,000 hours of operation after the previous emission test. Note that the conditions of 30 TAC § 117.8140(a)(2)(B)(i) and (ii) apply.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-028

Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) *(continued)*

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
7. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-029
NO _x Concentration	Small	<p>Use Reference Method 7E or 20 to stack test the unit for NO_x emissions within 15,000 hours of operation after the previous emission test. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A 100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods. In addition, install and operate an elapsed operating time meter to record hours of operation.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-030

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Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
8. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-031
NO _x Concentration	Small/Large	<p>Use Reference Method 7E or 20 to stack test the unit for NO_x emissions within 15,000 hours of operation after the previous emission test. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods. In addition, install and operate an elapsed operating time meter to record hours of operation.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-032

Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
NO _x Concentration	Small/Large	<p>Use a portable analyzer to monitor NO_x and oxygen concentration in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). NO_x Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once per quarter	n/a*	CAMG-OG-CC-036

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Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
11. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-037
Oxygen Concentration	Small	<p>The monitoring device shall measure the oxygen concentration of the oxygen sensor in millivolts or oxygen concentration. The oxygen sensor shall be installed in the engine exhaust at the inlet to the catalyst. The monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.</p> <p>Deviation Limit: A minimum and maximum oxygen level (measured in millivolts or oxygen concentration) shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-038

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Control Device: Non-Selective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
12. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-039
Oxygen Concentration	Small/Large	<p>The monitoring device shall measure the oxygen concentration of the oxygen sensor in millivolts or oxygen concentration. The oxygen sensor shall be installed in the engine exhaust at the inlet to the catalyst. The monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.</p> <p>Deviation Limit: A minimum and maximum oxygen level (measured in millivolts or oxygen concentration) shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-040

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
13. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: The inlet temperature remains ≥ 750 °F and ≤ 1250 °F.</p>	once per day	n/a*	CAMG-OG-CC-041
Pressure Drop	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.5 inches water gauge pressure (± 125 pascals); or • ± 0.5 percent of span. <p>Deviation Limit: The pressure drop across the catalyst shall not change by more than 2 inches of water at 100 percent load or ± 10 percent from the pressure drop across the catalyst measured during the initial performance test.</p>	once per day	n/a*	CAMG-OG-CC-042

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Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
14. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: The inlet temperature remains ≥ 750 °F and ≤ 1250 °F.</p>	four times per hour	one hour	CAMG-OG-CC-043
Pressure Drop	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.5 inches water gauge pressure (± 125 pascals); or • ± 0.5 percent of span. <p>Deviation Limit: The pressure drop across the catalyst shall not change by more than 2 inches of water at 100 percent load or ± 10 percent from the pressure drop across the catalyst measured during the initial performance test.</p>	four times per hour	one hour	CAMG-OG-CC-044

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
15. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-001
NO _x Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(c)(1), (3), (5), and (6) to stack test unit for NO_x emissions.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-002

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
16. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-003
NO _x Concentration	Small/Large	<p>Use Reference Method 7E or 20 to stack test the unit for NO_x emissions on a biennial calendar basis. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-004

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
17. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-005
NO _x Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(c)(1), (3), (5), and (6) to stack test the unit for NO_x emissions within 15,000 hours of operation after the previous emission test. Note that the conditions of 30 TAC § 117.8140(a)(2)(B)(i) and (ii) must be met.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-006

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
18. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-007
NO _x Concentration	Small/Large	<p>Use Reference Method 7E or 20 to stack test the unit for NO_x emissions within 15,000 hours of operation after the previous emission test. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods. In addition, install and operate an elapsed operating time meter to record hours of operation.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-008

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
19. Fuel Consumption, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-009
NO _x Concentration	Small	<p>Use a portable analyzer to monitor NO_x and oxygen concentration in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning and Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). NO_x Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once per quarter	n/a*	CAMG-OG-CC-010

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
20. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-011
NO _x Concentration	Small/Large	<p>Use a portable analyzer to monitor NO_x and oxygen concentration in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning and Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). NO_x Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once per quarter	n/a*	CAMG-OG-CC-012

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
21. Fuel Consumption, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-013
Inlet Gas Temperature	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-014

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
22. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-015
Inlet Gas Temperature	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-016

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
23. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-045
Carbon Monoxide (CO) Concentration	Small	<p>Use method specified in 30 TAC § 117.8000(b), (c)(2), (3), (5), and (6) to stack test the unit for CO emissions.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-046

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
24. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-047
CO Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(b), (c)(2), (3), (5), and (6) to stack test the unit for CO emissions.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-048

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
25. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-049
CO Concentration	Small/Large	<p>Use Reference Method 10 to stack test the unit for CO emissions on a biennial calendar basis. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-050

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
26. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-051
CO Concentration	Small/Large	<p>Use Reference Method 10 to stack test the unit for CO emissions on a biennial calendar basis. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-052

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
27. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-053
CO Concentration	Small	<p>Use method specified in 30 TAC § 117.8000(b), (c)(2), (3), (5), and (6) to stack test the unit for CO emissions within 15,000 hours of operation after the previous emission test. Note that the conditions of 30 TAC § 117.8140(a)(2)(B)(i) and (ii) apply.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-054

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
28. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-055
CO Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(b), (c)(2), (3), (5), and (6) to stack test the unit for CO emissions within 15,000 hours of operation after the previous emission test. Note that the conditions of 30 TAC § 117.8140(a)(2)(B)(i) and (ii) apply.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-056

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
29. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-057
CO Concentration	Small	<p>Use Reference Method 10 to stack test the unit for CO emissions within 15,000 hours of operation after the previous emission test. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods. In addition, install and operate an elapsed operating time meter to record hours of operation.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-058

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
30. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-059
CO Concentration	Small/Large	<p>Use Reference Method 10 to stack test the unit for CO emissions within 15,000 hours of operation after the previous emission test. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods. In addition, install and operate an elapsed operating time meter to record hours of operation.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-060

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
31. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-061
CO Concentration	Small	<p>Use a portable analyzer to monitor carbon monoxide and oxygen concentration in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). CO Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once per quarter	n/a*	CAMG-OG-CC-062

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
32. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	n/a*	CAMG-OG-CC-063

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
CO Concentration	Small/Large	<p>Use a portable analyzer to monitor carbon monoxide and oxygen concentration in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). CO Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once per quarter	n/a*	CAMG-OG-CC-064

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
33. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-073
CO Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(b), (c)(2), (3), (5), and (6) to stack test unit for CO emissions.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-074

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
34. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-075
CO Concentration	Small/Large	<p>Use Reference Method 10 to stack test the unit for CO emissions on a biennial calendar basis. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once every two years	n/a	CAMG-OG-CC-076

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
35. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-077
CO Concentration	Small/Large	<p>Use method specified in 30 TAC § 117.8000(b), (c)(2), (3), (5), and (6) to stack test the unit for CO emissions within 15,000 hours of operation after the previous emission test. Note that the conditions of 30 TAC § 117.8140(a)(2)(B)(i) and (ii) must be met.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-078

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
36 Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CC-079
CO Concentration	Small/Large	<p>Use Reference Method 10 to stack test the unit for CO emissions within 15,000 hours of operation after the previous emission test. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods. In addition, install and operate an elapsed operating time meter to record hours of operation.</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	every 15,000 hours of operation	n/a	CAMG-OG-CC-080

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
37. Fuel Consumption, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CC-081
CO Concentration	Small	<p>Use a portable analyzer to monitor carbon monoxide and oxygen concentration in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). CO Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once per quarter	n/a*	CAMG-OG-CC-082

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Nonselective Catalytic Reduction (Catalytic Converters) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
38. Fuel Consumption, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data</p>	four times per hour	one hour	CAMG-OG-CC-083
CO Concentration	Small/Large	<p>Use a portable analyzer to monitor carbon monoxide and oxygen concentration in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). CO Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum CO rate or concentration (specified in units of the underlying applicable requirement) is the corresponding carbon monoxide limit associated with the emission limitation in the underlying applicable requirement.</p>	once per quarter	n/a*	CAMG-OG-CC-084

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: All Volatile Organic Compound (VOC) Control Devices (Except Flares and Carbon Adsorption System)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. VOC Concentration	Small	<p>Use a portable analyzer to monitor VOC concentration at the outlet of the control device. The monitoring device shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated, operated, and maintained accurately. The monitoring device shall meet the requirements of 40 CFR Part 60, Appendix A-7, Method 21, Sections 2.0 and 3.0 (Determination of Volatile Organic Compound Leaks). However, the words "leak definition" in Method 21 shall be the outlet concentration (which corresponds to the appropriate deviation limit). The calibration gas shall either be representative of the compounds to be measured or shall be methane and shall be at a concentration associated with 125 percent of the expected organic compound concentration level for the control device outlet vent. The probe inlet of the monitoring device shall be placed at approximately the center of the control device outlet vent. The probe shall be held there for at least 5 minutes during which flow into the control device is expected to occur. The maximum reading during that period shall be used as the measurement.</p> <p>Deviation Limit: A maximum VOC concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-VO-001

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: All VOC Control Devices (Except Flares and Carbon Adsorption System)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. VOC Concentration	Small/Large	<p>Use a continuous emission monitoring system (CEMS) to measure and record the concentration of organic compounds in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 (Monitoring Requirements) and the performance specifications of 40 CFR Part 60, Appendix B (Performance Specifications).</p> <p>Deviation Limit: A maximum VOC rate or concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-VO-002

Control Device: All NO_x Control Devices⁴

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. NO _x Concentration	Small	<p>Use a portable analyzer to monitor NO_x in the exhaust stream of the control device. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning and Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). NO_x Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	once per day	n/a*	CAMG-OG-NO-001

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

⁴Units using NO_x control devices may choose one of the options listed for “All NO_x Control Devices” or they may choose another option from section (e).

Control Device: All NO_x Control Devices⁴ (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. NO _x Concentration	Small/Large	<p>Use a CEMS to measure and record the concentration of NO_x and either oxygen or carbon dioxide in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. NO_x Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	four times per hour	one hour	CAMG-OG-NO-002
3. NO _x Concentration	Small/Large	<p>Use a predictive emission monitoring system (PEMS) to predict the emissions of NO_x in the units of the underlying applicable emission limitation. The PEMS shall be installed, calibrated and tested to prove model functionality, maintained, and operated in accordance with the manufacturer's specifications. In addition, monitor oxygen or carbon dioxide with either a CEMS, operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B, or a PEMS, operated in accordance with above procedures.</p> <p>Deviation Limit: The maximum NO_x rate or concentration (specified in units of the underlying applicable requirement) is the corresponding NO_x limit associated with the emission limitation in the underlying applicable requirement.</p>	four times per hour	one hour	CAMG-OG-NO-003

⁴Units using NO_x control devices may choose one of the options listed for "All NO_x Control Devices" or they may choose another option from section (e).

Control Device: All SO₂ Control Devices

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Sulfur Dioxide Concentration	Small/Large	<p>Use a CEMS to measure and record sulfur dioxide emissions in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. In addition, monitor oxygen or carbon dioxide with a CEMS operated in accordance with above CEMS procedures.</p> <p>Deviation Limit: The maximum sulfur dioxide rate or concentration (specified in units of the underlying applicable requirement) is the corresponding sulfur dioxide limit associated with the emission limitation in the underlying applicable requirement.</p>	four times per hour	one hour	CAMG-OG-SO-001

Control Device: Flare

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Pilot Flame	Small/Large	<p>Monitor the presence of a flare pilot flame using a thermocouple or other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. Maintain records of alarm events and duration of alarm events. Each monitoring device shall be accurate to within manufacturer's recommendations. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.</p> <p>Deviation Limit: No pilot flame.</p>	continuous	n/a	CAMG-OG-FL-001

Control Device: Flare (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Visible Emissions	Small	<p>Visible emissions observations shall be made and recorded in accordance with the requirements specified in 40 CFR § 64.7(c) (Operation of Approved Monitoring). Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>Deviation Limit: No visible emissions. If visible emissions are observed, the permit holder shall either report a deviation or determine visible emissions consistent with Test Method 22 or Test Method 9.</p>	once per day	n/a	CAMG-OG-FL-002

Control Device: Flare (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. Visible Emissions	Small	<p>Visible emissions observations shall be made and recorded in the flare operation log. A daily notation in the flare operation log shall include the time of day and whether or not the flare had visible emissions. The flare operator shall record at least 98 percent of these required observations. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes.</p> <p>Deviation Limit: No visible emissions. If visible emissions are observed, the permit holder shall either report a deviation or determine visible emissions consistent with Test Method 22 or Test Method 9.</p>	once per day	n/a	CAMG-OG-FL-003

Control Device: Flare (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
4. Inlet Flow Rate, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A maximum inlet flow rate shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FL-004
Net Heating Value	Small	<p>Calculate the net heating value of the gas being combusted using the procedures and specifications of 40 CFR § 60.18(f)(3) (General Control Device and Work Practice Requirements). The sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed.</p> <p>Deviation Limit: The minimum net heating value of the gas being combusted is 11.2 megajoule per standard cubic meter (MJ/scm) (300 Btu/scf (British thermal units per standard cubic foot/feet)) for steam-assisted or air-assisted flares. The minimum net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) for nonassisted flares. The minimum net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf) for steam-assisted and nonassisted flares designed for and operated with an exit velocity equal to or greater than 18.3 meters per second (m/sec) (60 feet per second (ft/sec)) but less than 122 m/sec (400 ft/sec).</p>	once per day	n/a*	CAMG-OG-FL-005

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flare (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
5. Inlet Flow Rate, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A maximum inlet flow rate shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FL-006
Net Heating Value	Small/Large	<p>A continuous analyzer that provides the net heating value of the gas being combusted using the procedures and specifications of 40 CFR § 60.18(f)(3). The sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed.</p> <p>Deviation Limit: The minimum net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) for steam-assisted or air-assisted flares. The minimum net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) for nonassisted flares. The minimum net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf) for steam-assisted and nonassisted flares designed for and operated with an exit velocity equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec).</p>	four times per hour	one hour	CAMG-OG-FL-007

*Control Device: Thermal Incinerator
(Direct Flame Incinerator/Regenerative Thermal Oxidizer/Thermal Oxidizer)*

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Combustion Temperature/ Exhaust Gas Temperature	Small	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5degrees Celsius. <p>Deviation Limit: A minimum combustion temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-TI-001

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

*Control Device: Thermal Incinerator
(Direct Flame Incinerator/Regenerative Thermal Oxidizer/Thermal Oxidizer)*

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Combustion Temperature/ Exhaust Gas Temperature	Small/Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum combustion temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-TI-002

Control Device: Vapor Combustor

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Combustion Temperature/ Exhaust Gas Temperature	Small	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum combustion temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-VC-001
2. Combustion Temperature/ Exhaust Gas Temperature	Small/Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum combustion temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-VC-002

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Catalytic Incinerator

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Catalyst Bed Inlet and Outlet Gas Temperature	Small	<p>The monitoring devices shall be installed in the inlet to and exit of the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum temperature difference across the inlet and outlet of the catalyst bed shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CI-001
2. Catalyst Bed Inlet and Outlet Gas Temperature	Small/Large	<p>The monitoring devices shall be installed in the inlet to and exit of the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum temperature difference across the inlet and outlet of the catalyst bed shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CI-002

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations

Control Device: Steam Generating Unit⁵ (Boiler/Process Heater) Used as VOC Control

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Combustion Temperature/ Exhaust Gas Temperature	Small	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber into which the VOC is introduced. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum combustion temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SG-001

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations

⁵. A steam generating unit is a device that combusts any fuel and produces steam or heats water or any other heat transfer medium.

Control Device: Steam Generating Unit⁵ (Boiler/Process Heater) Used as VOC Control (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Combustion Temperature/ Exhaust Gas Temperature	Small/Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber into which the VOC is introduced. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum combustion temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SG-002

Control Device: Carbon Adsorption System (Regenerative)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Total Regeneration Stream Mass Flow, and	Small	<p>Measure and record, during a regeneration cycle, the total regeneration stream mass flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream mass flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-001

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Carbon Adsorption System (Regenerative)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Carbon Bed Temperature	Small	<p>Measure and record, during a regeneration cycle, the carbon bed temperature for the duration of the steaming cycle and to measure the actual bed temperature after regeneration and within 15 minutes of completing the cooling cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A maximum temperature of the carbon bed after regeneration [and after completion of any cooling cycle(s)] shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-002

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Total Regeneration Stream Mass Flow, and	Small/Large	<p>Measure and record, during a regeneration cycle, the total regeneration stream mass flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream mass flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-003

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Carbon Bed Temperature	Small/Large	<p>Measure and record, during a regeneration cycle, the carbon bed temperature for the duration of the steaming cycle and to measure the actual bed temperature after regeneration and within 15 minutes of completing the cooling cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A maximum temperature of the carbon bed after regeneration [and after completion of any cooling cycle(s)] shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-004

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. Total Regeneration Stream Volumetric Flow, and	Small	<p>Measure and record, during a regeneration cycle, the total regeneration stream volumetric flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream volumetric flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-005

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Carbon Bed Temperature	Small	<p>Measure and record, during a regeneration cycle, the carbon bed temperature for the duration of the steaming cycle and to measure the actual bed temperature after regeneration and within 15 minutes of completing the cooling cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A maximum temperature of the carbon bed after regeneration [and after completion of any cooling cycle(s)] shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-006

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
4. Total Regeneration Stream Volumetric Flow, and	Small/ Large	<p>Measure and record, during a regeneration cycle, the total regeneration stream volumetric flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream volumetric flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-007
Carbon Bed Temperature	Small/ Large	<p>Measure and record, during a regeneration cycle, the carbon bed temperature for the duration of the steaming cycle and to measure the actual bed temperature after regeneration and within 15 minutes of completing the cooling cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 0.75 percent of the temperature being measured expressed in degrees Celsius; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A maximum temperature of the carbon bed after regeneration [and after completion of any cooling cycle(s)] shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-008

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
5. Total Regeneration Stream Mass Flow, and	Small	<p>Measure and record, during a regeneration cycle, the total regeneration stream mass flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream mass flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-009
Carbon Bed Pressure	Small	<p>Measure and record, during a regeneration cycle, the carbon bed pressure for the duration of the vacuum cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure of the carbon bed during regeneration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-010

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
6. Total Regeneration Stream Mass Flow, and	Small/ Large	<p>Measure and record, during a regeneration cycle, the total regeneration stream mass flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream mass flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-011
Carbon Bed Pressure	Small/ Large	<p>Measure and record, during a regeneration cycle, the carbon bed pressure for the duration of the vacuum cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure of the carbon bed during regeneration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-012

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
7. Total Regeneration Stream Volumetric Flow, and	Small	<p>Measure and record, during a regeneration cycle, the total regeneration stream volumetric flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream volumetric flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-013
Carbon Bed Pressure	Small	<p>Measure and record, during a regeneration cycle, the carbon bed pressure for the duration of the vacuum cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure of the carbon bed during regeneration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-014

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
8. Total Regeneration Stream Volumetric Flow, and	Small/ Large	<p>Measure and record, during a regeneration cycle, the total regeneration stream volumetric flow. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 10 percent of span.</p> <p>Deviation Limit: A minimum regeneration stream volumetric flow shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-015
Carbon Bed Pressure	Small/ Large	<p>Measure and record, during a regeneration cycle, the carbon bed pressure for the duration of the vacuum cycle. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure of the carbon bed during regeneration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-CA-016

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
9. VOC Concentration	Small	<p>Use a portable analyzer to monitor exhaust gas VOC concentration at the outlet of the carbon adsorption system. The monitoring device shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated, operated, and maintained accurately. The monitoring device shall meet the requirements of 40 CFR Part 60, Appendix A-7, Method 21, Sections 2.0 and 3.0. However, the words "leak definition" in Method 21 shall be the outlet concentration. The calibration gas shall either be representative of the compounds to be measured or shall be methane and shall be at a concentration associated with 125 percent of the expected organic compound concentration level for the carbon adsorber outlet vent. The probe inlet of the monitoring device shall be placed at approximately the center of the carbon adsorber outlet vent. The probe shall be held there for at least 5 minutes during which flow into the carbon adsorber is expected to occur. The maximum reading during that period shall be used as the measurement.</p> <p>Deviation Limit: A maximum VOC concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-CA-017

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Carbon Adsorption System (Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
10. VOC Concentration	Small/ Large	<p>Use a CEMS to measure and record the concentration of organic compounds in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A maximum VOC rate or concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data for the outlet of the last or final polishing canister in the series of canisters.</p>	four times per hour	one hour	CAMG-OG-CA-018

Control Device: Carbon Adsorption System (Non-Regenerative)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Carbon Replacement Interval (Work Practice)	Small/ Large	<p>Establish and monitor the replacement time interval of the carbon canister(s), as determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system.</p> <p>Deviation Limit: A minimum carbon replacement interval shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	n/a	n/a	CAMG-OG-CA-019

Control Device: Carbon Adsorption System (Non-Regenerative) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. VOC Concentration	Small	<p>Use a portable analyzer to monitor VOC concentration at the outlet of the first, second canister of the series of canisters but before the inlet to the second, third or final polishing canister in the series, as appropriate. Once breakthrough has been determined with the portable analyzer for the first, second canister, use the portable analyzer to monitor VOC concentration at the outlet of the last or final polishing canister in the series until the first, second canister is replaced. The monitoring device shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated, operated, and maintained accurately. The monitoring device shall meet the requirements of 40 CFR Part 60, Appendix A-7, Method 21, Sections 2.0 and 3.0. However, the words "leak definition" in Method 21 shall be the outlet concentration. The calibration gas shall either be representative of the compounds to be measured or shall be methane and shall be at a concentration associated with 125 percent of the expected organic compound concentration level for the carbon adsorber outlet vent. The probe inlet of the monitoring device shall be placed at approximately the center of the carbon adsorber vent. The probe shall be held there for at least 5 minutes during which flow into the carbon adsorber is expected to occur. The maximum reading during that period shall be used as the measurement.</p> <p>Deviation Limit: A maximum VOC concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data for the outlet of the last or final polishing canister in the series of canisters.</p>	once per day	n/a*	CAMG-OG-CA-020

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. VOC Concentration	Small/ Large	<p>Use a CEMS to measure and record the concentration of organic compounds in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A maximum VOC rate or concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data for the outlet of the last or final polishing canister in the series of canisters.</p>	four times per hour	one hour	CAMG-OG-CA-021

Control Device: Condenser System

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Exhaust Gas Temperature	Small	<p>The monitoring device shall be installed at the outlet to the condenser system. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A maximum exhaust gas temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations (GRI-GLYCalc v. 3.0 or most recent version), or historical data.</p>	once per day	n/a*	CAMG-OG-CS-001

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Condenser System (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Exhaust Gas Temperature	Small/Large	<p>The monitoring device shall be installed at the outlet to the condenser system. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A maximum exhaust gas temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations (GRI-GLYCalc v. 3.0 or most recent version), or historical data.</p>	four times per hour	one-hour	CAMG-OG-CS-002
3. Exhaust Gas Temperature	Small/Large	<p>The monitoring device shall be installed at the outlet to the condenser system. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A maximum exhaust gas temperature shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations (GRI-GLYCalc v. 3.0 or most recent version), or historical data.</p>	four times per hour	daily	CAMG-OG-CS-003

Control Device: Selective Catalytic Reduction

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-001
Injection Nozzle Flow Rate	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-002

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Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Inlet Gas Temperature, and	Small/ Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-003
Injection Nozzle Flow Rate	Small/ Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-004

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-005
Injection Nozzle Supply Pressure	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design supply pressure. <p>Deviation Limit: A minimum supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-006

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
4. Inlet Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-007
Injection Nozzle Supply Pressure	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design supply pressure. <p>Deviation Limit: A minimum supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-008

Control Device: Selective Catalytic Reduction (*continued*)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
5. Inlet Gas Temperature, and	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-009

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Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Inlet Oxygen Concentration	Small	<p>Use a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999).</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-010

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
6. Inlet Gas Temperature, and	Small/ Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-011
Inlet Oxygen Concentration	Small/ Large	<p>Use a CEMS to measure and record the inlet oxygen concentration to the catalyst bed. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-012

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
7. Injection Nozzle Flow Rate, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-013
Inlet Oxygen Concentration	Small	<p>Use a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999).</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-014

* The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
8. Injection Nozzle Flow Rate, and	Small/ Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-015
Inlet Oxygen Concentration	Small/ Large	<p>Use a CEMS to measure and record the inlet oxygen concentration to the catalyst bed. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-016

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
9. Injection Nozzle Supply Pressure, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design supply pressure. <p>Deviation Limit: A minimum supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-017
Inlet Oxygen Concentration	Small	<p>Use a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999).</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-018

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
10. Injection Nozzle Supply Pressure, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design supply pressure. <p>Deviation Limit: A minimum supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-019
Inlet Oxygen Concentration	Small/Large	<p>Use a CEMS to measure and record the inlet oxygen concentration to the catalyst bed. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-020

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
11. Catalyst Bed Pressure Drop, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • \pm 1-inch water gauge pressure (\pm 250 pascals); or • \pm 2 percent of span. <p>Deviation Limit: A minimum and maximum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-021
Inlet Oxygen Concentration	Small	<p>Use a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999).</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-022

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
12. Catalyst Bed Pressure Drop, and	Small/ Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum and maximum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-023
Inlet Oxygen Concentration	Small/ Large	<p>Use a CEMS to measure and record the inlet oxygen concentration to the catalyst bed. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-024

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
13. Catalyst Bed Pressure Drop, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum and maximum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-025

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Inlet Gas Temperature	Small	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SC-026

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Selective Catalytic Reduction (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
14. Catalyst Bed Pressure Drop, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum and maximum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-027
Inlet Gas Temperature	Small/Large	<p>The monitoring device shall be installed to record the inlet flue gas temperature to the catalyst bed. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SC-028

Control Device: Flue Gas Recirculation

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Combustion Temperature/ Exhaust Gas Temperature, and	Small	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-001

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Oxygen Concentration	Small	<p>Use a portable analyzer to monitor oxygen concentration in the exhaust stream. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning & Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999).</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-002

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Combustion Temperature/ Exhaust Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-003
Oxygen Concentration	Small/Large	<p>Use a CEMS to measure and record the concentration of oxygen in the exhaust stream. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-004

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. Combustion Temperature/ Exhaust Gas Temperature, and	Small	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-005

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Fan Motor Current	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1 percent of reading; or • ± 5 percent over its operating range. <p>Deviation Limit: A minimum current shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-006

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Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
4. Combustion Temperature/ Exhaust Gas Temperature, and	Small/ Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-007
Fan Motor Current	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1 percent of reading; or • ± 5 percent over its operating range. <p>Deviation Limit: A minimum current shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-008

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
5. Combustion Temperature/ Exhaust Gas Temperature, and	Small	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-009

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Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Recirculated Flue Gas Flow Rate	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-010

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
6. Combustion Temperature/ Exhaust Gas Temperature, and	Small/Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: A minimum and maximum temperature shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-011
Recirculated Flue Gas Flow Rate	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-012

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
7. Oxygen Concentration, and	Small	<p>Use a portable analyzer to monitor oxygen concentration in the exhaust stream. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning and Standards, Emission Measurement Center Conditional Test Method-Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999).</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-013
Fan Motor Current	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1 percent of reading; or • ± 5 percent over its operating range. <p>Deviation Limit: A minimum current shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-014

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
8. Oxygen Concentration, and	Small/ Large	<p>Use a CEMS to measure and record the concentration of oxygen in the exhaust stream. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-015
Fan Motor Current	Small/ Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1 percent of reading; or • ± 5 percent over its operating range. <p>Deviation Limit: A minimum current shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-016

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
9. Oxygen Concentration, and	Small	<p>Use a portable analyzer to monitor oxygen concentration in the exhaust stream. The portable analyzer shall be operated in accordance with the United States Environmental Protection Agency's, Office of Air Quality Planning and Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide, and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999).</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-017

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Recirculated Flue Gas Flow Rate	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-FG-018

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Flue Gas Recirculation (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
10. Oxygen Concentration, and	Small/Large	<p>Use a CEMS to measure and record the concentration of oxygen in the exhaust stream. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: A minimum and maximum oxygen concentration shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-019
Recirculated Flue Gas Flow Rate	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance the device is calibrated accurately; or at least annually (whichever) is more frequent, and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. <p>Deviation Limit: A minimum flow rate shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-FG-020

Control Device: Steam/Water Injection System

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Steam or Water Flow Rate, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A minimum water or steam to fuel consumption ratio shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SI-001
Fuel Consumption	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SI-002

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: Steam/Water Injection Systems (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Steam or Water Flow Rate, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A minimum water or steam to fuel consumption ratio shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SI-003
Fuel Consumption	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the fuel flow meter is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 5 percent.</p> <p>Deviation Limit: A maximum fuel consumption limit shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SI-004

Control Device: SO₂ Scrubber

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Pressure Drop, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-001
Liquid Flow Rate	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design liquid flow rate. <p>Deviation Limit: A minimum liquid flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-002

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. Pressure Drop, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-003
Liquid Flow Rate	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design liquid flow rate. <p>Deviation Limit: A minimum liquid flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-004

Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. Pressure Drop, and	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-005
Liquid Supply Pressure	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design liquid supply pressure. <p>Deviation Limit: A minimum liquid supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-006

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by the minimum frequency and calculate a daily average for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances in order to avoid reporting deviations.

Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
4. Pressure Drop, and	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 1-inch water gauge pressure (± 250 pascals); or • ± 2 percent of span. <p>Deviation Limit: A minimum pressure drop shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-007
Liquid Supply Pressure	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design liquid supply pressure. <p>Deviation Limit: A minimum liquid supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-008

Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
5. pH, and	Small	<p>Each monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least weekly, whichever is more frequent, and shall be accurate to within ± 0.5 pH units.</p> <p>Deviation Limit: A minimum pH shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-009
Liquid Flow Rate	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design liquid flow rate. <p>Deviation Limit: A minimum liquid flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-010

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Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
6. pH, and	Small/ Large	<p>Each monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least weekly, whichever is more frequent, and shall be accurate to within ± 0.5 pH units.</p> <p>Deviation Limit: A minimum pH shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-011
Liquid Flow Rate	Small/ Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design liquid flow rate. <p>Deviation Limit: A minimum liquid flow rate shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-012

Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
7. pH, and	Small	<p>Each monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least weekly, whichever is more frequent, and shall be accurate to within ± 0.5 pH units.</p> <p>Deviation Limit: A minimum pH shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-013
Liquid Supply Pressure	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design liquid supply pressure. <p>Deviation Limit: A minimum liquid supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-014

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Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
8. pH, and	Small/Large	<p>Each monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least weekly, whichever is more frequent, and shall be accurate to within ± 0.5 pH units.</p> <p>Deviation Limit: A minimum pH shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-015
Liquid Supply Pressure	Small/Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 5 percent of span; or • ± 5 percent of design liquid supply pressure. <p>Deviation Limit: A minimum liquid supply pressure shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-016

Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
9. pH, and	Small	<p>Each monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least weekly, whichever is more frequent, and shall be accurate to within ± 0.5 pH units.</p> <p>Deviation Limit: A minimum pH shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-017
Liquid Flow Rate and Gas Flow Rate	Small	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 2 percent of span.</p> <p>Deviation Limit: A minimum liquid-to-gas ratio shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	once per day	n/a*	CAMG-OG-SS-018

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Control Device: SO₂ Scrubber (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
10. pH, and	Small/ Large	<p>Each monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least weekly, whichever is more frequent, and shall be accurate to within ± 0.5 pH units.</p> <p>Deviation Limit: A minimum pH shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-019
Liquid Flow Rate and Gas Flow Rate	Small/ Large	<p>Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within ± 2 percent of span.</p> <p>Deviation Limit: A minimum liquid-to-gas ratio shall be established using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, or historical data.</p>	four times per hour	one hour	CAMG-OG-SS-020

Control Device: Sulfur Recovery Unit (Flare)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. H ₂ S Inlet Concentration, and	Small	<p>Measure the inlet concentration of hydrogen sulfide (H₂S) using either the Tutwiler procedure in 40 CFR § 60.648, the stain tube procedures of GPA 2377-86, or a chromatographic procedure following ASTM E-260.</p> <p>Deviation Limit: Minimum sulfur reduction efficiency shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data. Inlet concentration and flow rate shall be used to compute the sulfur feed rate as follows:</p> <ul style="list-style-type: none"> • Sulfur Feed Rate = $3.707 \times 10^{-7} (\text{Inlet Flow Rate}) (\text{H}_2\text{S Concentration})$ • Sulfur Feed Rate = Long tons/day. • Inlet Flow Rate = Flow rate of acid gas feed, dscf/day. • H₂S Concentration = H₂S concentration as measured by Tutwiler or ASTM E-260, percent by volume. • 3.707×10^{-7} = Conversion constant. • The sulfur reduction efficiency shall be computed using the sulfur feed rate and sulfur accumulation as follows: • Reduction Efficiency = $(100)(\text{Sulfur Accumulation})/(\text{Sulfur Feed Rate})$ • Reduction Efficiency = Percent. • Sulfur Accumulation = Total Sulfur, long tons, accumulation over 24 hours (day), long tons/day. • Sulfur Feed Rate = Long tons/day. 	once per day	n/a*	CAMG-OG-SR-001

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Control Device: Sulfur Recovery Unit (Flare) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Inlet Flow Rate, and	Small	Each monitoring device shall be calibrated in accordance with the manufacturer’s specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following: <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. Deviation Limit: See Deviation Limit in CAMG-OG-SR-001.	once per day	n/a*	CAMG-OG-SR-002
Sulfur Accumulation, and	Small	Measure the accumulation of sulfur product for each 24-hour period by measuring and recording sulfur production or by measuring and recording the liquid level in the storage tanks. The monitoring device shall be calibrated in accordance with the manufacturer’s specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall have an accuracy of ± 2 percent. Deviation Limit: See Deviation Limit in CAMG-OG-SR-001.	once per day	n/a*	CAMG-OG-SR-003

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Control Device: Sulfur Recovery Unit (Flare) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Pilot Flame	Small	<p>The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. Each monitoring device shall be accurate to within manufacturer's recommendations. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.</p> <p>Deviation Limit: No pilot flame.</p>	four times per hour	n/a	CAMG-OG-SR-004

Control Device: Sulfur Recovery Unit (Flare) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. H ₂ S Inlet Concentration, and	Small/ Large	<p>Measure the inlet concentration of H₂S using either the Tutwiler procedure in 40 CFR § 60.648 (Optional Procedure for Measuring Hydrogen Sulfide in Acid Gas-Tutwiler Procedure), the stain tube procedures of GPA 2377-86, or a chromatographic procedure following ASTM E-260.</p> <p>Deviation Limit: A minimum sulfur reduction efficiency shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data. Inlet concentration and flow rate shall be used to compute the sulfur feed rate as follows:</p> <ul style="list-style-type: none"> • Sulfur Feed Rate = $3.707 \times 10^{-7} (\text{Inlet Flow Rate})(\text{H}_2\text{S Concentration})$ • Sulfur Feed Rate = Long tons/day. • Inlet Flow Rate = Flow rate of acid gas feed, dscf/day. • H₂S Concentration = H₂S concentration as measured by Tutwiler or ASTM E-260, percent by volume. • 3.707×10^{-7} = Conversion constant. • The sulfur reduction efficiency shall be computed using the sulfur feed rate and sulfur accumulation as follows: • Reduction Efficiency = $(100)(\text{Sulfur Accumulation})/(\text{Sulfur Feed Rate})$ • Reduction Efficiency = Percent. • Sulfur Accumulation = Total Sulfur, long tons, accumulation over 24 hours (day), long tons/day. • Sulfur Feed Rate = Long tons/day. 	once per day	n/a*	CAMG-OG-SR-005

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Control Device: Sulfur Recovery Unit (Flare) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Inlet Flow Rate, and	Small/ Large	Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following: <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. Deviation Limit: See Deviation Limit in CAMG-OG-SR-005.	four times per hour	one hour	CAMG-OG-SR-006
Sulfur Accumulation, and	Small/Large	Measure the accumulation of sulfur product for each 24-hour period by measuring and recording sulfur production or by measuring and recording the liquid level in the storage tanks. The monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall have an accuracy of ± 2 percent. Deviation Limit: See Deviation Limit in CAMG-OG-SR-005.	once per day	n/a*	CAMG-OG-SR-007

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Control Device: Sulfur Recovery Unit (Flare) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Pilot Flame	Small/Large	<p>The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. Each monitoring device shall be accurate to within manufacturer's recommendations. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.</p> <p>Deviation Limit: No pilot flame.</p>	four times per hour	n/a	CAMG-OG-SR-008

Control Device: Sulfur Recovery Unit (Incinerator)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
1. Combustion Temperature/ Exhaust Gas Temperature, and	Small/ Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: The minimum combustion temperature is 1200 F (649 C).</p>	four times per hour	one hour	CAMG-OG-SR-009
SO ₂ Mass Emissions in Pounds per Hour	Small/Large	<p>Use a CEMS to measure and record the mass emissions rate of sulfur dioxide expressed in pounds per hour in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B.</p> <p>Deviation Limit: The maximum SO_x mass emission rate is the applicable or corresponding emission limit.</p>	four times per hour	one hour	CAMG-OG-SR-010

Control Device: Sulfur Recovery Unit (Incinerator) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
2. H ₂ S Inlet Concentration, and	Small	<p>Measure the inlet concentration of H₂S using either the Tutwiler procedure in 40 CFR § 60.648, the stain tube procedures of GPA 2377-86, or a chromatographic procedure following ASTM E-260.</p> <p>Deviation Limit: Minimum sulfur reduction efficiency shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data. Inlet concentration and flow rate shall be used to compute the sulfur feed rate as follows:</p> <ul style="list-style-type: none"> • Sulfur Feed Rate = $3.707 \times 10^{-7} (\text{Inlet Flow Rate})(\text{H}_2\text{S Concentration})$ • Sulfur Feed Rate = Long tons/day. • Inlet Flow Rate = Flow rate of acid gas feed, dscf/day. • H₂S Concentration = H₂S concentration as measured by Tutwiler or ASTM E-260, percent by volume. • 3.707×10^{-7} = Conversion constant. • The sulfur reduction efficiency shall be computed using the sulfur feed rate and sulfur accumulation as follows: • Reduction Efficiency = $(100)(\text{Sulfur Accumulation})/(\text{Sulfur Feed Rate})$ • Reduction Efficiency = Percent. • Sulfur Accumulation = Total Sulfur, long tons, accumulation over 24 hours (day), long tons/day. • Sulfur Feed Rate = Long tons/day. 	once per day	n/a*	CAMG-OG-SR-011

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Control Device: Sulfur Recovery Unit (Incinerator) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Inlet Flow Rate, and	Small	Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following: <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. Deviation Limit: See Deviation Limit in CAMG-OG-SR-011.	once per day	n/a*	CAMG-OG-SR-012
Sulfur Accumulation, and	Small	Measure the accumulation of sulfur product for each 24-hour period by measuring and recording sulfur production or by measuring and recording the liquid level in the storage tanks. The monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall have an accuracy of ± 2 percent. Deviation Limit: See Deviation Limit in CAMG-OG-SR-011.	once per day	n/a*	CAMG-OG-SR-013

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Control Device: Sulfur Recovery Unit (Incinerator) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Combustion Temperature/ Exhaust Gas Temperature	Small	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: The minimum combustion temperature is 1200 °F (649 °C).</p>	once per day	n/a*	CAMG-OG-SR-014

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Control Device: Sulfur Recovery Unit (Incinerator) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
3. H ₂ S Inlet Concentration, and	Small/Large	<p>Measure the inlet concentration of H₂S using either the Tutwiler procedure in 40 CFR § 60.648, the stain tube procedures of GPA 2377-86, or a chromatographic procedure following ASTM E-260.</p> <p>Deviation Limit: Minimum sulfur reduction efficiency shall be established using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, or historical data. Inlet concentration and flow rate shall be used to compute the sulfur feed rate as follows:</p> <ul style="list-style-type: none"> • Sulfur Feed Rate = $3.707 \times 10^{-7} (\text{Inlet Flow Rate}) (\text{H}_2\text{S Concentration})$ • Sulfur Feed Rate = Long tons/day. • Inlet Flow Rate = Flow rate of acid gas feed, dscf/day. • H₂S Concentration = H₂S concentration as measured by Tutwiler or ASTM E-260, percent by volume. • 3.707×10^{-7} = Conversion constant. • The sulfur reduction efficiency shall be computed using the sulfur feed rate and sulfur accumulation as follows: • Reduction Efficiency = $(100)(\text{Sulfur Accumulation})/(\text{Sulfur Feed Rate})$ • Reduction Efficiency = Percent. • Sulfur Accumulation = Total Sulfur, long tons, accumulation over 24 hours (day), long tons/day. • Sulfur Feed Rate = Long tons/day. 	once per day	n/a*	CAMG-OG-SR-015

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Control Device: Sulfur Recovery Unit (Incinerator) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Inlet Flow Rate, and	Small/Large	Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following: <ul style="list-style-type: none"> • ± 2 percent of span; or • ± 5 percent of design flow rate. Deviation Limit: See Deviation Limit in CAMG-OG-SR-015.	four times per hour	one hour	CAMG-OG-SR-016
Sulfur Accumulation, and	Small/Large	Measure the accumulation of sulfur product for each 24-hour period by measuring and recording sulfur production or by measuring and recording the liquid level in the storage tanks. The monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall have an accuracy of ± 2 percent. Deviation Limit: See Deviation Limit in CAMG-OG-SR-015.	once per day	n/a*	CAMG-OG-SR-017

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Control Device: Sulfur Recovery Unit (Incinerator) (continued)

Indicator Monitored	Size	Monitoring Specifications and Procedures	Min. Freq.	Average	CAM Option Number
Combustion Temperature/ Exhaust Gas Temperature	Small/Large	<p>The monitoring device shall be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated in accordance with the manufacturer's specifications; in accordance with other written procedures that provide an adequate assurance that the device is calibrated accurately; or at least annually (whichever is more frequent), and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> • ± 2 percent of reading; or • ± 2.5 degrees Celsius. <p>Deviation Limit: The minimum combustion temperature is 1200 F (649 °C).</p>	four times per hour	one hour	CAMG-OG-SR-018