(f) Periodic Monitoring

(1) Periodic monitoring applies to emission units at a site that are subject to 30 TAC Chapter 122 provided that the emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement, excluding those emission limitations or standards identified in 30 TAC § 122.602(b).

(2) When reviewing the permit tables, if the index number has a Monitoring/Testing requirement listed as "Periodic Monitoring," then the unit requires periodic monitoring and the selection of a option from the Periodic Monitoring Options Tables in Section (g).

(3) 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, 1500 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 periodic monitoring into the application may be reviewed in the Oil and Gas General Operating Permit Statement of Basis and in the "Periodic Monitoring Guidance Document."

(g) Periodic Monitoring Option Tables

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
Nitrogen Oxides (NO_x)	**UNITS WITH A CONTROL DEVICE: CATALYTIC CONVERTERS**				
	1. Inlet Gas Temperature, and	Measure and record the temperature at the inlet to the catalytic converter. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per day	n/a*	PMG-OG-N-043
	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using the method specified in 30 TAC § 117.8000. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once every two years	n/a	PMG-OG-N-044
	2 Inlet Gas Temperature, and	Measure and record the temperature at the inlet to the catalytic converter. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per day	n/a*	PMG-OG-N-045
	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using 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. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once every two years	n/a	PMG-OG-N-046

*The permit holder may elect to collect monitoring data on a more frequent basis than is required by this Periodic Monitoring Guidance Document and calculate the average as specified by the minimum frequency, 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 to avoid reporting deviations.

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: CATALYTIC CONVERTERS (CONTINUED)**				
	3. Inlet Gas Temperature, and	Measure and record the temperature at the inlet to the catalytic converter. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per day	n/a*	PMG-OG-N-047
	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using the method specified in 30 TAC § 117.8000. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	every 15,000 hours of operation	n/a	PMG-OG-N-48
	4. Inlet Gas Temperature, and	Measure and record the temperature at the inlet to the catalytic converter. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per day	n/a*	PMG-OG-N-049
	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using 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. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	every 15,000 hours of operation	n/a	PMG-OG-N-050
	5. Inlet Gas Temperature, and	Measure and record the temperature at the inlet to the catalytic converter. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per day	n/a*	PMG-OG-N-051

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: CATALYTIC CONVERTERS (CONTINUED)**				
	NO_x Concentration	Monitor and record the nitrogen oxide concentration in the exhaust stream using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the 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).	once per quarter	n/a*	PMG-OG-N-052
	6. Inlet Gas Temperature, and	Measure and record the temperature at the inlet to the catalytic converter. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-053
	Oxygen Concentration	Measure and record 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. Establish a minimum and maximum oxygen level (measured in millivolts or oxygen concentration) using the most appropriate of the following: the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. 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.	once per week	n/a*	PMG-OG-N-054
	7. Inlet Gas Temperature, and	Measure and record the temperature at the inlet to the catalytic converter. The inlet temperature should remain $\geq$750 degrees Fahrenheit and $\leq$1250 degrees Fahrenheit. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-059
	Pressure Drop	Measure and record the pressure drop across the catalyst bed. The pressure drop across the catalyst should not change by more than 2 inches of water at 100% load or $\pm$ 10% from the pressure drop across the catalyst measured during the initial performance test. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-060
	8. Fuel Consumption, and	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-035

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
UNITS WITH A CONTROL DEVICE: CATALYTIC CONVERTERS (CONTINUED)					
NO_x *Continued*	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using the method specified in 30 TAC § 117.8000. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once every two years	n/a	PMG-OG-N-036

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: CATALYTIC CONVERTERS (CONTINUED)**				
	9. Fuel Consumption, and	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-055
	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using 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. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once every two years	n/a	PMG-OG-N-056
	10. Fuel Consumption, and	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-037
	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using the method specified in 30 TAC § 117.8000. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	every 15,000 hours of operation	n/a	PMG-OG-N-038

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: CATALYTIC CONVERTERS (CONTINUED)**				
	11. Fuel Consumption, and	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-057
	NO_x Concentration	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using 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. The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	every 15,000 hours of operation	n/a	PMG-OG-N-058
	12. Fuel Consumption, and	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-039
	NO_x Concentration	Monitor and record the nitrogen oxide concentration in the exhaust stream using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the 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).	once per quarter	n/a*	PMG-OG-N-040

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: CATALYTIC CONVERTERS (CONTINUED)**				
	13. Fuel Consumption, and	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-041
	Inlet Gas Temperature	Measure and record the temperature at the inlet to the catalytic converter. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-042
	ALL EMISSION UNITS				
	1. NO_x Concentration	Monitor and record the nitrogen oxide concentration in the exhaust stream using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the 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).	monthly	n/a*	PMG-OG-N-001
	2. NO_x Concentration	Measure and record the concentration of nitrogen oxide in the exhaust stream with a continuous emission monitoring system (CEMS). In addition, monitor the oxygen or carbon dioxide content of the flue gas with a CEMS. 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).	four times per hour	one hour	PMG-OG-N-002

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: SELECTIVE CATALYTIC REDUCTION (EXCEPT FOR RECIPROCATING ENGINES)**				
	1. Inlet Gas Temperature, and	Measure and record the inlet flue gas temperature to the catalyst bed. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-003
	Injection Nozzle Flow Rate	Measure and record the injection nozzle flow rate. Establish a minimum flow rate using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-004
	2. Inlet Gas Temperature, and	Measure and record the inlet flue gas temperature to the catalyst bed. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-005
	Injection Nozzle Supply Pressure	Measure and record the injection nozzle supply pressure. Establish a minimum supply pressure using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-006
	3. Inlet Gas Temperature, and	Measure and record the inlet flue gas temperature to the catalyst bed. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-007

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: SELECTIVE CATALYTIC REDUCTION (EXCEPT FOR RECIPROCATING ENGINES)(CONTINUED)**				
	Inlet Oxygen Concentration	Measure and record the oxygen concentration using a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. Establish a minimum and a maximum oxygen concentration using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-008
	4. Injection Nozzle Flow Rate, and	Measure and record the injection nozzle flow rate. Establish a minimum flow rate using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-009
	Inlet Oxygen Concentration	Measure and record the oxygen concentration using a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. Establish a minimum and a maximum oxygen concentration using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-010
	5. Injection Nozzle Supply Pressure, and	Measure and record the injection nozzle supply pressure. Establish a minimum supply pressure using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-011
	Inlet Oxygen Concentration	Measure and record the oxygen concentration using a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. Establish a minimum and a maximum oxygen concentration using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-012

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: SELECTIVE CATALYTIC REDUCTION (EXCEPT FOR RECIPROCATING ENGINES)(CONTINUED)**				
	6. Inlet Oxygen Concentration, and	Measure and record the oxygen concentration using a portable analyzer to monitor oxygen concentration in the inlet flue gas to the catalyst bed. Establish a minimum and a maximum oxygen concentration using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-013
	Catalyst Bed Pressure Drop	Measure and record the pressure drop across the catalyst bed. Establish a minimum pressure drop using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-014
	7. Inlet Gas Temperature, and	Measure and record the inlet flue gas temperature to the catalyst bed. Establish a minimum and maximum temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-015
	Catalyst Bed Pressure Drop	Measure and record the pressure drop across the catalyst bed. Establish a minimum pressure drop using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-016

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: FLUE GAS RECIRCULATION**				
	1. Combustion Temperature/ Exhaust Gas Temperature, and	Measure and record the temperature of the combustion chamber or the exhaust gas temperature immediately downstream of the combustion chamber. Establish a minimum and maximum combustion or exhaust temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-023
	Oxygen Concentration	Measure and record oxygen concentration of the exhaust gas using a portable analyzer. Establish a minimum and maximum oxygen concentration using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The portable analyzer shall be operated in accordance with the 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). Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-024
	2. Combustion Temperature/ Exhaust Gas Temperature, and	Measure and record the temperature of the combustion chamber or the exhaust gas temperature immediately downstream of the combustion chamber. Establish a minimum and maximum combustion or exhaust temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-025
	Fan Motor Current	Measure and record the fan motor current. Establish a minimum current using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-026

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: FLUE GAS RECIRCULATION (CONTINUED)**				
	3. Combustion Temperature/ Exhaust Gas Temperature, and	Measure and record the temperature of the combustion chamber or the exhaust gas temperature immediately downstream of the combustion chamber. Establish a minimum and maximum combustion or exhaust temperature using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-027
	Recirculated Flue Gas Flow Rate	Measure and record the recirculated flue gas flow rate. Establish a minimum flow rate using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-028
	4. Oxygen Concentration, and	Measure and record oxygen concentration of the exhaust gas using a portable analyzer. Establish a minimum and maximum oxygen concentration using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The portable analyzer shall be operated in accordance with the 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). Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-029
	Fan Motor Current	Measure and record the fan motor current. Establish a minimum current using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-030

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
NO_x *Continued*	**UNITS WITH A CONTROL DEVICE: FLUE GAS RECIRCULATION (CONTINUED)**				
	5. Oxygen Concentration, and	Measure and record oxygen concentration of the exhaust gas using a portable analyzer. Establish a minimum and maximum oxygen concentration using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The portable analyzer shall be operated in accordance with the 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). Any monitoring data below the minimum limit or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-031
	UNITS WITH A CONTROL DEVICE: FLUE GAS RECIRCULATION (CONTINUED)				
	Recirculated Flue Gas Flow Rate	Measure and record the recirculated flue gas flow rate. Establish a minimum flow rate using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-032
	CONTROL DEVICE: STEAM/WATER INJECTION SYSTEMS				
	1. Steam or water flow rate, and	Measure and record the steam or water flow rate. Establish a minimum steam or water to fuel ratio using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-033
	Fuel Consumption	Measure and record fuel consumption. Establish a minimum steam or water to fuel ratio using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-N-034

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
Particulate Matter	**COMBUSTION UNITS FUELED BY PIPELINE NATURAL GAS, LIQUID PETROLEUM GAS, OR FIELD GAS W/ < 10GR TOTAL SULFUR PER 100 CUBIC FEET**				
	1. Fuel Type	Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.	Update reports annually or at any time an alternate fuel is used	n/a	PMG-OG-P-029
	2. Fuel Type	Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	Annually	n/a	PMG-OG-P-030

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
Volatile Organic Compound (VOC)	**ALL EMISSION UNITS (EXCEPT FLARE AND CARBON ADSORPTION SYSTEM)**				
	1. VOC Concentration	Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration at the outlet of the control device. The monitoring device shall meet the requirements of 40 CFR Part 60, Appendix A, Method 21, Sections 2, 3, 4.1, 4.2, and 4.4. However, the words "leak definition" in Method 21 shall be the outlet concentration. Establish a maximum VOC concentration using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	monthly	n/a*	PMG-OG-V-001
	2. VOC Concentration	Measure and record the concentration of organic compounds in the exhaust stream with a continuous emission monitoring system (CEMS). The CEMS shall be operated in accordance with 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B). Establish a maximum VOC concentration using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	four times per hour	hourly	PMG-OG-V-002
	UNITS WITH A CONTROL DEVICE: VAPOR COLLECTION SYSTEM				
	1. VOC Concentration; and	Measure and record fugitive emissions from the vapor collection system in accordance with 40 CFR Part 60, Appendix A, Method 21.	once per year	n/a	PMG-OG-V-058
	Visual Inspection	Visually inspect all components of the vapor collection system for defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions	once per year	n/a	PMG-OG-V-059

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A CONTROL DEVICE: FLARE**				
	1. Pilot Flame	Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. 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 or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.	once per hour	n/a	PMG-OG-V-003
	2. Visible Emissions	Visible emissions observations shall be made and recorded. 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. 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.	once per day	n/a	PMG-OG-V-004
	3. Visible Emissions	Visible emissions observations shall be made and recorded in the flare operation log. A daily notation in the flare operation log should include the time of day and whether or not the flare had visible emissions. For flares operated less frequently than daily, the observation shall be made for each operation. The flare operator shall record at least 98% 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. 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.	once per day	n/a	PMG-OG-V-053

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A CONTROL DEVICE: FLARE**				
	4. Inlet Flow Rate, And	Measure and record the inlet flow rate. Establish a maximum inlet flow rate using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-005
	Net Heating Value	Calculate and record the net heating value of the gas being combusted using the procedures and specifications of 40 CFR § 60.18(f)(3). The sample points should 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. 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 non assisted 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). Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-006
	UNITS WITH A CONTROL DEVICE: THERMAL INCINERATOR (DIRECT FLAME INCINERATOR/REGENERATIVE THERMAL OXIDIZER)				
	1. Combustion Temperature/ Exhaust Gas Temperature	Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. Establish a minimum combustion temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-007
	UNITS WITH A CONTROL DEVICE: VAPOR COMBUSTOR				
	1. Combustion Temperature/ Exhaust Gas Temperature	Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. Establish a minimum combustion temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-008
	If the vapor combustor has been initially tested as a flare and not as a thermal incinerator then the correct index numbers are contained in **UNITS WITH A CONTROL DEVICE: FLARE**				

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A CONTROL DEVICE: CATALYTIC INCINERATOR**				
	1. Catalyst Bed Inlet and Outlet Gas Temperature	Measure and record the catalyst bed temperature across the inlet to and exit of the catalyst bed. Establish a minimum temperature difference across the inlet and outlet of the catalyst bed using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-009
	UNITS WITH A CONTROL DEVICE: STEAM GENERATING UNIT (BOILER/PROCESS HEATER) USED AS VOC CONTROL				
	1. Combustion Temperature/ Exhaust Gas Temperature	Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber into which the volatile organic compound is introduced. Establish a minimum combustion temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-010

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A CONTROL DEVICE: CARBON ADSORPTION SYSTEM (REGENERATIVE)**				
	1. VOC Concentration	Measure and record the concentration of organic compounds in the exhaust stream with a continuous emission monitoring system (CEMS). The CEMS shall be operated in accordance with 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B. Establish a maximum VOC concentration using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	four times per hour	hourly	PMG-OG-V-013
	2. VOC Concentration	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, Method 21, Sections 2, 3, 4.1, 4.2, and 4.4. 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. 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, and/or historical data. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-014
	3. Total Regeneration Stream Mass Flow, and	Measure and record, during a regeneration cycle, the total regeneration stream mass flow. Establish a minimum regeneration stream mass flow using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-015

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A CONTROL DEVICE: CARBON ADSORPTION SYSTEM (REGENERATIVE)**				
	Carbon Bed Temperature	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 the completing the cooling cycle. Establish a maximum temperature of the carbon bed after regeneration [and after completion of any cooling cycle(s)] using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-016
	4. Total Regeneration Stream Mass Flow, and	Measure and record, during a regeneration cycle, the total regeneration stream mass flow. Establish a minimum regeneration stream mass flow using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-054
	Carbon Bed Pressure	Measure and record, during a regeneration cycle, the carbon bed pressure for the duration of the vacuum cycle. Establish a minimum carbon bed pressure using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-055
	5. Total Regeneration Stream Volumetric Flow, and	Measure and record, during a regeneration cycle, the total regeneration stream volumetric flow. Establish a minimum regeneration stream volumetric flow using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-017

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A CONTROL DEVICE: CARBON ADSORPTION SYSTEM (REGENERATIVE) (CONTINUED)**				
	Carbon Bed Temperature	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 the completing the cooling cycle. Establish a maximum temperature of the carbon bed after regeneration [and after completion of any cooling cycle(s)] using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-018
	6. Total Regeneration Stream Volumetric Flow, and	Measure and record, during a regeneration cycle, the total regeneration stream volumetric flow. Establish a minimum regeneration stream volumetric flow using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-056
	Carbon Bed Pressure	Measure and record, during a regeneration cycle, the carbon bed pressure for the duration of the vacuum cycle. Establish a minimum carbon bed pressure using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-057
	UNITS WITH A CONTROL DEVICE: CARBON ADSORBER (NON-REGENERATIVE)				
	1. Carbon Replacement Interval	Monitor and record 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. Establish a maximum carbon replacement interval using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. Any data, collected for a period which exceeds the maximum carbon replacement interval shall be considered and reported as a deviation.	at each replacement of a carbon canister	n/a	PMG-OG-V-019

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A CONTROL DEVICE: CARBON ADSORPTION SYSTEM (NON-REGENERATIVE) (CONTINUED)**				
	2. VOC Concentration	Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration at the outlet of the first or second canister, but before the inlet to the second, third, or final polishing canister of the carbon adsorption system, as appropriate. The monitoring device shall meet the requirements of 40 CFR Part 60, Appendix A, Method 21, Sections 2, 3, 4.1, 4.2, and 4.4. However, the words "leak definition" in Method 21 shall be the outlet concentration. 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 monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. Establish a maximum VOC concentration and that the carbon adsorption system will operate without breakthrough for more than two weeks using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. If the maximum reading after the outlet of the first, second, third canister (but not the final canister in the series), is above the maximum limit, that canister shall be replaced and the event recorded before the next VOC reading is taken. If the canister is not replaced and the event not recorded, it shall be considered and reported as a deviation. If the VOC concentration from the final canister is above the maximum limit it shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-020
	3. VOC Concentration	Measure and record the concentration of organic compounds in the exhaust stream with a continuous emission monitoring system (CEMS). The CEMS shall be operated in accordance with 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B. Establish a maximum VOC concentration using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	four times per hour	hourly	PMG-OG-V-021
	UNITS WITH A CONTROL DEVICE: CONDENSER SYSTEM				
	1. Exhaust Gas Temperature	Measure and record the exhaust gas temperature at the outlet to the condenser system. Establish a maximum exhaust gas temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-V-022

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A PASSIVE CONTROL DEVICE (VOC/WATER SEPARATOR W/ ENCLOSED COMPARTMENT)**				
	1. VOC Concentration	Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration around the immediate area of the compartment in accordance with 40 CFR Part 60, Appendix A, Method 21. Each potential leak interface (a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve. The owner or operator may choose to adjust the detection instrument readings for the background organic concentration level. For a potential leak interface other than a seal around a shaft that passes through a cover opening, the maximum deviation limit shall be 500 ppmv. For a seal around a shaft that passes through a cover opening the maximum deviation limit shall be 10,000 ppmv. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data greater than the maximum VOC limit indicated in the Deviation Limit above shall be considered and reported as a deviation as required by 30 TAC § 122.145(2).	quarterly	n/a*	PMG-OG-V-049

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
VOC *Continued*	**UNITS WITH A PASSIVE CONTROL DEVICE (VOC/WATER SEPARATOR W/ ENCLOSED COMPARTMENT) (CONTINUED)**				
	2. VOC Concentration, and	Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration around the immediate area of the compartment in accordance with 40 CFR Part 60, Appendix A, Method 21. Each potential leak interface (a location where organic vapor leakage could occur) on the cover and associated closer devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve. The owner or operator may choose to adjust the detection instrument readings for the background organic concentration level. For a potential leak interface other than a seal around a shaft that passes through a cover opening, the maximum deviation limit shall be 500 ppmv. For a seal around a shaft that passes through a cover opening the maximum deviation limit shall be 10,000 ppmv. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data greater than the maximum VOC limit indicated in the Deviation Limit above shall be considered and reported as a deviation as required by 30 TAC § 122.145(2).	annually	n/a*	PMG-OG-V-050
	Visual Inspection	The oil-water separator and its closure devices shall be visually inspected by the owner operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. Any monitoring data that indicates a gap or crack in a sealed opening shall be considered and reported as a deviation as required by 30 TAC § 122.145(2).	monthly	n/a	PMG-OG-V-051
	UNITS WITHOUT A CONTROL DEVICE (COLD SOLVENT CLEANERS)				
	1. Visual Inspection	Inspect equipment and record data monthly to ensure compliance with any applicable requirements in 30 TAC § 115.412(1)(A)-(F). Any monitoring data which indicates that the cold cleaner is not in compliance with the applicable requirements of 30 TAC § 115.412(1)(A)-(F) shall be considered and reported as a deviation.	monthly	n/a	PMG-OG-V-052

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
Carbon Monoxide (CO)	**ALL EMISSION UNITS**				
	1. CO Concentration	Measure and record the carbon monoxide concentration using a portable analyzer. Establish a maximum carbon monoxide concentration using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The portable analyzer shall be operated in accordance with the 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). Any monitoring data below the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-C-001
	2. CO Concentration	Measure and record the concentration of carbon monoxide in the exhaust stream of the control device with a continuous emission monitoring system (CEMS). 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. Establish a maximum carbon monoxide concentration the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	four times per hour	one hour	PMG-OG-C-002
	3. CO Concentration	Measure and record the carbon monoxide concentration using a portable analyzer. Establish a maximum carbon monoxide concentration using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The portable analyzer shall be operated in accordance with the 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). Any monitoring data below the maximum limit shall be considered and reported as a deviation.	monthly	n/a*	PMG-OG-C-003

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
Sulfur Dioxide (SO_2)	**ALL EMISSION UNITS**				
	SO_2 Concentration	Measure and record the concentration of SO_2 in the exhaust stream of the control device with a continuous emission monitoring system (CEMS). In addition, measure and record the oxygen or carbon dioxide content of the flue gas with a CEMS. The CEMS shall be operated in accordance with 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B. The maximum sulfur dioxide 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. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	four times per hour	hourly	PMG-OG-S-001
	ALL COMBUSTION UNITS USING PIPELINE QUALITY NATURAL GAS, COMMERCIAL PROPANE OR FUEL OIL. NOT FOR COMBUSTION UNITS BURNING REFINERY GAS OR SOLID FUEL.				
	Sulfur Content of Fuel	Measure and record the sulfur content of the fuel. Establish a maximum sulfur concentration using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. An monitoring data above the maximum limit shall be considered and reported as a deviation	quarterly and within 24 hours of any fuel change	n/a*	PMG-OG-S-002
	UNITS WITH A CONTROL DEVICE: SO_2 SCRUBBER				
	1.Pressure Drop, and	Measure and record the pressure drop. Establish a minimum and maximum pressure drop using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data.. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-003
	Liquid Flow Rate	Measure and record the liquid flow rate. Establish a minimum liquid flow rate using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-004
	2. Pressure Drop, and	Measure and record the pressure drop. Establish a minimum and maximum pressure drop using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum or above the maximum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-005
	Liquid Supply Pressure	Measure and record the liquid supply pressure. Establish a minimum liquid supply pressure using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-006

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
SO_2 *Continued*	**UNITS WITH A CONTROL DEVICE: SO_2 SCRUBBER (CONTINUED)**				
	3. pH, and	Measure and record the pH of the scrubber liquid. Establish a minimum pH using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation	once per week	n/a*	PMG-OG-S-007
	Liquid Flow Rate	Measure and record the liquid flow rate. Establish a minimum liquid flow rate using the most recent performance test data, the manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-008
	4. pH, and	Measure and record the pH of the scrubber liquid. Establish a minimum pH using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation	once per week	n/a*	PMG-OG-S-009
	Liquid Supply Pressure	Measure and record the liquid supply pressure. Establish a minimum liquid supply pressure using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-010
	4. pH, and	Measure and record the pH of the scrubber liquid. Establish a minimum pH using the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation	once per week	n/a*	PMG-OG-S-011
	Liquid Flow Rate and Gas Flow Rate	Measure and record the liquid flow rate and gas flow rate. Establish a minimum liquid-to-gas ratio using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be calibrated, maintained and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-012

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
SO_2 *Continued*	**UNITS WITH A CONTROL DEVICE: INCINERATOR (SRU)**				
	1. Combustion Temperature/ Exhaust Gas Temperature, and	Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The minimum combustion temperature is 1200 °F (649 °C). The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	four times per hour	daily	PMG-OG-S-013
	SO_2 Mass Emissions in Pounds per Hour	A continuous emission monitoring system (CEMS) that measures and records 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. The maximum SO_x mass emission rate is the applicable or corresponding emission limit. Any monitoring data above the limit from the underlying applicable requirement shall be considered and reported as a deviation.	four times per hour	hourly	PMG-OG-S-014
	2. H_2S Inlet Concentration, and	Measure and record the inlet concentration of H_2S to determine the minimum sulfur reduction efficiency. Establish the inlet concentration of H_2S using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The inlet concentration shall be used to compute the sulfur feed rate as follows: Sulfur Feed Rate = $3.707*10^{-7}$(Inlet Flow Rate)(H_2S Concentration) Sulfur Feed Rate = Long tons/day; Inlet Flow Rate = Flow rate of acid gas feed, dscf/day; H_2S Concentration = H_2S inlet concentration as m easured; $3.707*10^{-7}$ = Conversion constant. The sulfur reduction efficiency shall be computed using the sulfur feed rate and the sulfur accumulation. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum sulfur reduction efficiency shall be considered and reported as a deviation.	once per wee k	n/a*	PMG-OG-S-015

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN FREQ.	AVERAGE	PM OPTION NUMBER
SO_2 *Continued*	**UNITS WITH A CONTROL DEVICE: INCINERATOR (SRU) (CONTINUED)**				
	Inlet Flow Rate, and	Measure and record the inlet flow rate to determine the minimum sulfur reduction efficiency. Establish the inlet flow rate using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The inlet flow rate shall be used to compute the sulfur feed rate as follows: Sulfur Feed Rate = $3.707*10^{-7}$(Inlet Flow Rate)(H_2S Concentration) Sulfur Feed Rate = Long tons/day; Inlet Flow Rate = Flow rate of acid gas feed, dscf/day; H_2S Concentration = H_2S inlet concentration as measured; $3.707*10^{-7}$ = Conversion constant. The sulfur reduction efficiency shall be computed using the sulfur feed rate and the sulfur accumulation. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum sulfur reduction efficiency shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-016
	Sulfur Accumulation, and	Measure and record the accumulation of sulfur product to determine the minimum sulfur reduction efficiency. Establish the accumulation of sulfur product by measuring and recording sulfur production or by measuring and recording the liquid level in the storage tanks. The sulfur reduction efficiency shall be computed using the sulfur feed rate and the sulfur accumulation as follows: Reduction Efficiency = (100)(Sulfur Accumulation)/(Sulfur Feed Rate) Reduction Efficiency = Percent, %; Sulfur Accumulation = Total Sulfur, long tons, accumulated over 24 hours (day); Sulfur Feed rate = Long tons/day. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum sulfur reduction efficiency shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-017
	Combustion Temperature/ Exhaust Gas Temperature	Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The minimum combustion temperature is 1200 °F (649 °C). The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-018

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN. FREQ.	AVERAGE	PM OPTION NUMBER
SO_2 *Continued*	**UNITS WITH A CONTROL DEVICE: FLARE (SRU)**				
	H_2S Inlet Concentration, and	Measure and record the inlet concentration of H_2S to determine the minimum sulfur reduction efficiency. Establish the inlet concentration of H_2S using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The inlet concentration shall be used to compute the sulfur feed rate as follows: Sulfur Feed Rate = $3.707*10^{-7}$(Inlet Flow Rate)(H_2S Concentration) Sulfur Feed Rate = Long tons/day; Inlet Flow Rate = Flow rate of acid gas feed, dscf/day; H_2S Concentration = H_2S inlet concentration as measured; $3.707*10^{-7}$ = Conversion constant. The sulfur reduction efficiency shall be computed using the sulfur feed rate and the sulfur accumulation. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum sulfur reduction efficiency shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-019
	Inlet Flow Rate, and	Measure and record the inlet flow rate to determine the minimum sulfur reduction efficiency. Establish the inlet flow rate using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The inlet flow rate shall be used to compute the sulfur feed rate as follows: Sulfur Feed Rate = $3.707*10^{-7}$(Inlet Flow Rate)(H_2S Concentration) Sulfur Feed Rate = Long tons/day; Inlet Flow Rate = Flow rate of acid gas feed, dscf/day; H_2S Concentration = H_2S inlet concentration as measured; $3.707*10^{-7}$ = Conversion constant. The sulfur reduction efficiency shall be computed using the sulfur feed rate and the sulfur accumulation. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum sulfur reduction efficiency shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-020

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MIN. FREQ.	AVERAGE	PM OPTION NUMBER
SO_2 *Continued*	**UNITS WITH A CONTROL DEVICE: FLARE (SRU) (CONTINUED)**				
	Sulfur Accumulation, and	Measure and record the accumulation of sulfur product to determine the minimum sulfur reduction efficiency. Establish the accumulation of sulfur product by measuring and recording sulfur production or by measuring and recording the liquid level in the storage tanks. The sulfur reduction efficiency shall be computed using the sulfur feed rate and the sulfur accumulation as follows: Reduction Efficiency = (100)(Sulfur Accumulation)/(Sulfur Feed Rate) Reduction Efficiency = Percent, %; Sulfur Accumulation = Total Sulfur, long tons, accumulated over 24 hours (day); Sulfur Feed rate = Long tons/day. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum sulfur reduction efficiency shall be considered and reported as a deviation.	once per week	n/a*	PMG-OG-S-021
	Pilot Flame	Measure and record the presence of the pilot flame. 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. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.	once per hour	n/a	PMG-OG-S-022
Ammonia	**UNITS WITH A CONTROL DEVICE: SELECTIVE NON-CATALYTIC REDUCTION (SNCR)**				
	1. Ammonia Concentration	Measure and record the ammonia concentration in exhaust gas with a portable analyzer. The ammonia concentration limit is the maximum ammonia concentration limit in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	monthly	n/a*	PMG-OG-A-001
	2. Ammonia Concentration	A continuous emission monitoring system (CEMS) that measures and records the concentration of ammonia in the exhaust stream. The CEMS shall be operated in accordance with 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B. The ammonia concentration limit is the maximum ammonia concentration limit in the underlying applicable requirement. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	four times per hour	hourly	PMG-OG-A-002

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MINIMUM FREQ.	AVERAGE	PM OPTION NUMBER
Nitrogen Oxides (NO_X)	**STATIONARY GAS TURBINES WITH A CONTROL DEVICE OTHER THAN WATER OR STEAM INJECTION**				
	1. NOx Concentration	Monitor and record the nitrogen oxide concentration in the exhaust stream using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the 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).	Monthly	n/a*	PMG-OG-N-061
	2. NOx Concentration; and:	Monitor and record the nitrogen oxide concentration in the exhaust stream using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the 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).	Quarterly	n/a*	PMG-OG-N-061
	Fuel Consumption.	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	Once per week	n/a*	PMG-OG-N-062

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MINIMUM FREQ.	AVERAGE	PM OPTION NUMBER
	STATIONARY GAS TURBINES WITH A CONTROL DEVICE OTHER THAN WATER OR STEAM INJECTION				
	3. Fuel Consumption; and:	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	Once per week	n/a*	PMG-OG-N-063
NOx Continued	NOx Concentration.	Measure and record the nitrogen oxides concentration of the exhaust gas on a annual calendar basis using the method specified in 30 TAC § 117.8000(b)-(d). The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	Annually	n/a*	PMG-OG-N-064
	4. Fuel Consumption; and:	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	Once per week	n/a*	PMG-OG-N-065

	EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MINIMUM FREQ.	AVERAGE
	STATIONARY GAS TURBINES WITH A CONTROL DEVICE OTHER THAN WATER OR STEAM INJECTION				
	NOx Concentration.	Measure and record the nitrogen oxides concentration of the exhaust gas on a biennial calendar basis using the method specified in 30 TAC § 117.8000(b)-(d). The maximum NO_x concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxide limit associated with the emission limitation in the underlying applicable requirement. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	Once every two years	n/a*	PMG-OG-N-066
	5. NOx Concentration; and:	Monitor and record the nitrogen oxide concentration in the exhaust stream each quarter that the emission unit is operational using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the 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).	Quarterly	n/a*	PMG-OG-N-067
NOx Continued	Fuel Consumption.	Measure and record fuel consumption. Establish a maximum fuel consumption limit using the most appropriate of the following: the most recent performance test data, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with the manufacturer's specifications or other written procedures. Any monitoring data above the maximum limit shall be considered and reported as a deviation.	Once per week	n/a*	PMG-OG-N-068

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EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MINIMUM FREQ.	AVERAGE	PM OPTION NUMBER
Volatile Organic Compound (VOC)	**UNITS WITH A PASSIVE CONTROL DEVICE (SUBMERGED FILL PIPE) FOR STORAGE TANKS (NOT TRANSPORT VEHICLE LOADING)**				
	1. Liquid Level, and:	Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Establish the depth of the highest point of the fill pipe. Soundings, gauging, liquid level gauges including sight gauges, or the use of an IR camera shall be made and recorded to determine the depth of the liquid. This determination will be compared to the depth of the fill pipe. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level.	every time liquid is unloaded to another storage vessel or by pipeline or at the end of each unloading operation	n/a*	PMG-OG-V-043
	Structural Integrity of the Pipe	Inspect to determine the structural integrity of the fill pipe and record each time before the storage vessel is filled. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.	every time the tank is emptied and degassed	n/a*	PMG-OG-V-044
	2. Liquid Level, and:	Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Establish the depth of the highest point of the fill pipe. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor or gauging or by the use of an IR camera. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level.	once per day	n/a*	PMG-OG-V-045
	Structural Integrity of the Pipe	Inspect to determine the structural integrity of the fill pipe and record each time before the storage vessel is filled. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.	every time the tank is emptied and degassed	n/a*	PMG-OG-V-046
	3. Liquid Level, and:	Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Establish the volume of liquid at the depth of the highest point of the fill pipe. Record the volume of liquid loaded and unloaded so that the amount of liquid being stored is known It shall be considered and reported as a deviation anytime the liquid volume falls below the amount of liquid volume that is needed to keep the discharge of the fill pipe submerged.	at the end of each loading or unloading operation	n/a*	PMG-OG-V-047

EMISSION	INDICATOR MONITORED	PERIODIC MONITORING REQUIREMENT	MINIMUM FREQ.	AVERAGE	PM OPTION NUMBER
	UNITS WITH A PASSIVE CONTROL DEVICE (SUBMERGED FILL PIPE) FOR STORAGE TANKS (NOT TRANSPORT VEHICLE LOADING)				
	Structural Integrity of the Pipe	Inspect to determine the structural integrity of the fill pipe and record each time before the storage vessel is filled. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.	every time the tank is emptied and degassed	n/a*	PMG-OG-V-048
VOC Continued	4. Record of Tank Construction Specifications, and	Keep a record of tank construction specifications (e.g. engineering drawings) that show a fill pipe that extends from the top of a tank to have a maximum clearance of six inches (15.2 centimeters) from the bottom or, when the tank is loaded from the side, a discharge opening entirely submerged when the pipe used to withdraw liquid from the tank can no longer withdraw liquid in normal operation.	n/a	n/a*	PMG-OG-V-060
	Structural Integrity of the Pipe	Inspect to determine the structural integrity of the fill pipe and record each time before the storage vessel is filled to ensure that it continues to meet the specifications in the above requirement. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.	every time the tank is emptied and degassed	n/a*	PMG-OG-V-061

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