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## 40 C.F.R. § 63.9804

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### What are my monitoring system installation, operation, and maintenance requirements?

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- (a) You must install, operate, and maintain each CPMS required by this subpart according to your OM&M plan and the requirements in paragraphs (a)(1) through (15) of this section.
- (1) You must satisfy all applicable requirements of performance specifications for CPMS specified in 40 CFR part 60, appendix B, upon promulgation of such performance specifications.
- (2) You must satisfy all applicable requirements of quality assurance (QA) procedures for CPMS specified in 40 CFR part 60, appendix F, upon promulgation of such QA procedures.
- (3) You must install each sensor of your CPMS in a location that provides representative measurement of the appropriate parameter over all operating conditions, taking into account the manufacturer's guidelines.
- (4) You must use a CPMS that is capable of measuring the appropriate parameter over a range that extends from a value of at least 20 percent less than the lowest value that you expect your CPMS to measure, to a value of at least 20 percent greater than the highest value that you expect your CPMS to measure.
- (5) You must use a data acquisition and recording system that is capable of recording values over the entire range specified in paragraph (a)(4) of this section.
- (6) You must use a signal conditioner, wiring, power supply, and data acquisition and recording system that are compatible with the output signal of the sensors used in your CPMS.
- (7) You must perform an initial calibration of your CPMS based on the procedures specified in the manufacturer's owner's manual.
- (8) You must use a CPMS that is designed to complete a minimum of one cycle of operation for each successive 15-minute period. To have a valid hour of data, you must have at least three of four equally-spaced data values (or at least 75 percent of the total number of values if you collect more than four data values per hour) for that hour (not including startup, shutdown, malfunction, or out-of-control periods).
- (9) You must record valid data from at least 90 percent of the hours during which the affected source or process operates.
- (10) You must determine and record the 15-minute block averages of all measurements, calculated after every 15 minutes of operation as the average of the previous 15 operating minutes (not including periods of startup, shutdown, or malfunction).
- (11) You must determine and record the 3-hour block averages of all 15-minute recorded measurements, calculated after every 3 hours of operation as the average of the previous 3 operating hours (not including periods of startup, shutdown, or malfunction).
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- (12) You must record the results of each inspection, calibration, initial validation, and accuracy audit.
- (13) At all times, you must maintain your CPMS in accordance with § 63.9792(b), including, but not limited to, keeping the necessary parts readily available for routine repairs of the CPMS.
- (14) You must perform an initial validation of your CPMS under the conditions specified in paragraphs (14)(i) and (ii) of this section.
- (i) Prior to the initial performance test on the affected source for which the CPMS is required.
- (ii) Within 180 days of your replacing or relocating one or more of the sensors of your CPMS.
- (15) Except for redundant sensors, as defined in § 63.9824, any device that you use to conduct an initial validation or accuracy audit of your CPMS must meet the accuracy requirements specified in paragraphs (15)(i) and (ii) of this section.
- (i) The device must have an accuracy that is traceable to National Institute of Standards and Technology (NIST) standards.
- (ii) The device must be at least three times as accurate as the required accuracy for the CPMS.
- (b) For each temperature CPMS that is used to monitor the combustion chamber temperature of a thermal oxidizer or the catalyst bed inlet temperature of a catalytic oxidizer, you must meet the requirements in paragraphs (a) and (b)(1) through (6) of this section.
- (1) Use a temperature CPMS with a minimum accuracy of  $\pm 1.0$  percent of the temperature value or 2.8 degrees Celsius ( $^{\circ}\text{C}$ ) (5 degrees Fahrenheit ( $^{\circ}\text{F}$ )), whichever is greater.
- (2) Use a data recording system with a minimum resolution of one-half or better of the required CPMS accuracy specified in paragraph (b)(1) of this section.
- (3) Perform an initial validation of your CPMS according to the requirements in paragraph (3)(i) or (ii) of this section.

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