

QA procedures for CPMS established in 40 CFR part 60, appendix F.

(5) Conduct an accuracy audit of your CPMS following any 24-hour period throughout which the pressure measured by your CPMS exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(6) At least monthly, check all mechanical connections on your CPMS for leakage.

(7) If your CPMS is not equipped with a redundant pressure sensor, perform at least quarterly a visual inspection of all components of the CPMS for integrity, oxidation, and galvanic corrosion.

(d) For each liquid flow rate CPMS that is used to monitor the liquid flow rate in a wet scrubber, you must meet the requirements in paragraphs (a) and (d)(1) through (7) of this section.

(1) Use a flow rate CPMS with a minimum accuracy of ± 5.0 percent or 1.9 liters per minute (L/min) (0.5 gallons per minute (gal/min)), whichever is greater.

(2) Use a data recording system with a minimum resolution of one-half the required CPMS accuracy specified in paragraph (d)(1) of this section, or better.

(3) Perform an initial validation of your CPMS according to the requirements in paragraph (3)(i) or (ii) of this section.

(i) Use a calibrated flow rate measurement system to measure the liquid flow rate in a location that is adjacent to the measurement location for your flow rate CPMS and is subject to the same environment as your flow rate CPMS. The calibrated flow rate measurement device must satisfy the accuracy requirements of paragraph (a)(15) of this section. While the process and control device that is monitored by your flow rate CPMS are operating normally, record concurrently and compare the flow rates measured by your flow rate CPMS and the calibrated flow rate measurement device. Using the calibrated flow rate measurement device as the reference, the flow rate measured by your CPMS must be within the accuracy specified in paragraph (d)(1) of this section.

(ii) Perform any of the initial validation methods for liquid flow rate CPMS specified in performance specifications for CPMS established in 40 CFR part 60, appendix B.

(4) Perform an accuracy audit of your flow rate CPMS at least quarterly, according to the requirements in paragraph (d)(4)(i), (ii), or (iii) of this section.

(i) If your flow rate CPMS includes a redundant sensor, record three pairs of

concurrent flow rate measurements within a 24-hour period. Each pair of concurrent measurements must consist of a flow rate measurement by each of the two flow rate sensors. The minimum time interval between any two such pairs of consecutive flow rate measurements is 1 hour. The measurements must be taken during periods when the process and control device that is monitored by your flow rate CPMS are operating normally. Calculate the mean of the three flow rate measurement values for each flow rate sensor. The mean values must agree within the required overall accuracy of the CPMS, as specified in paragraph (d)(1) of this section.

(ii) If your flow rate CPMS does not include a redundant flow rate sensor, place the sensor of a calibrated flow rate measurement device adjacent to the sensor of your flow rate CPMS in a location that is subject to the same environment as the sensor of your flow rate CPMS. The calibrated flow rate measurement device must satisfy the accuracy requirements of paragraph (a)(15) of this section. While the process and control device that is monitored by your flow rate CPMS are operating normally, record concurrently and compare the flow rate measured by your pressure CPMS and the calibrated flow rate measurement device. Using the calibrated flow rate measurement device as the reference, the flow rate measured by your CPMS must be within the accuracy specified in paragraph (d)(1) of this section.

(iii) Perform any of the accuracy audit methods for liquid flow rate CPMS specified in QA procedures for CPMS established in 40 CFR part 60, appendix F.

(5) Conduct an accuracy audit of your flow rate CPMS following any 24-hour period throughout which the flow rate measured by your CPMS exceeds the manufacturer's specified maximum operating range, or install a new flow rate sensor.

(6) At least monthly, check all mechanical connections on your CPMS for leakage.

(7) If your CPMS is not equipped with a redundant flow rate sensor, perform at least quarterly a visual inspection of all components of the CPMS for integrity, oxidation, and galvanic corrosion.

(e) For each pH CPMS that is used to monitor the pH of a wet scrubber liquid, you must meet the requirements in paragraphs (a) and (e)(1) through (5) of this section.

(1) Use a pH CPMS with a minimum accuracy of ± 0.2 pH units.

(2) Use a data recording system with a minimum resolution of 0.1 pH units, or better.

(3) Perform an initial validation of your pH CPMS according to the requirements in paragraph (e)(3)(i) or (ii) of this section.

(i) Perform a single-point calibration using an NIST-certified buffer solution that is accurate to within ± 0.02 pH units at 25°C (77°F). If the expected pH of the liquid that is monitored lies in the acidic range (less than 7 pH), use a buffer solution with a pH value of 4.00. If the expected pH of the liquid that is monitored is neutral or lies in the basic range (equal to or greater than 7 pH), use a buffer solution with a pH value of 10.00. Place the electrode of your pH CPMS in the container of buffer solution. Record the pH measured by your CPMS. Using the certified buffer solution as the reference, the pH measured by your CPMS must be within the accuracy specified in paragraph (e)(1) of this section.

(ii) Perform any of the initial validation methods for pH CPMS specified in performance specifications for CPMS established in 40 CFR part 60, appendix B.

(4) Perform an accuracy audit of your pH CPMS at least weekly, according to the requirements in paragraph (e)(4)(i), (ii), or (iii) of this section.

(i) If your pH CPMS includes a redundant pH sensor, record the pH measured by each of the two pH sensors. The measurements must be taken during periods when the process and control device that is monitored by your pH CPMS are operating normally. The two pH values must agree within the required overall accuracy of the CPMS, as specified in paragraph (e)(1) of this section.

(ii) If your pH CPMS does not include a redundant pH sensor, perform a single point calibration using an NIST-certified buffer solution that is accurate to within ± 0.02 pH units at 25°C (77°F). If the expected pH of the liquid that is monitored lies in the acidic range (less than 7 pH), use a buffer solution with a pH value of 4.00. If the expected pH of the liquid that is monitored is neutral or lies in the basic range (equal to or greater than 7 pH), use a buffer solution with a pH value of 10.00. Place the electrode of the pH CPMS in the container of buffer solution. Record the pH measured by your CPMS. Using the certified buffer solution as the reference, the pH measured by your CPMS must be within the accuracy specified in paragraph (e)(1) of this section.

(iii) Perform any of the accuracy audit methods for pH CPMS specified in QA