

## 8.6 What performance specifications must be met for the routine QA tests required by Part 75 ?

The performance specifications for the routine Part 75 QA tests are basically the same as for initial certification (see Table 16 in Section 7 of this guide). There are, however, a few notable exceptions:

- For daily calibration error tests of SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, O<sub>2</sub>, and flow monitors, the calibration error (CE) specifications are twice as wide as the specifications for initial certification. For example, when certification testing of an SO<sub>2</sub> or NO<sub>x</sub> monitor is performed, the maximum allowable CE during the 7-day calibration error test is  $\pm 2.5\%$  of the span value, but the “control limits” for daily operation of the monitor are  $\pm 5.0\%$  of span.
- For SO<sub>2</sub> and NO<sub>x</sub> monitors with span values greater than 50 ppm but less than 200 ppm, there is an alternative CE specification, i.e.,  $|R - A| \leq 10.0$  ppm.
- For SO<sub>2</sub> and NO<sub>x</sub> monitors with span values of 50 ppm or less (which are exempted from the 7-day calibration error test), the alternative CE specification is  $|R - A| \leq 5.0$  ppm.
- For RATAs, there is an incentive system that rewards good monitor performance. RATAs may be performed annually rather than semiannually if a certain level of relative accuracy is achieved. The relative accuracy test frequency incentive system is summarized in Table 18. Table 18 shows that when the percent relative accuracy is 7.5% or less, the test frequency is annual. But even if 7.5% RA is not achieved, the monitoring system may still be eligible for an annual RATA frequency, if an alternative relative accuracy specification is met. The alternative specifications are also shown in Table 18, and they apply to:
  - ☐ Low emitters of SO<sub>2</sub> and NO<sub>x</sub> ;
  - ☐ Sources with very low stack gas velocities; and
  - ☐ Moisture, CO<sub>2</sub>, and O<sub>2</sub> monitoring systems.

In each case, the alternative RA specification is the difference between the mean values of the reference method and CEMS measurements from the RATA.

**Table 18: Relative Accuracy Test Frequency  
Incentive System**

For a RATA of this type of monitoring system....	The test frequency is annual, rather than semiannual, if the % RA is....	However, if the following conditions are met.....	Then annual frequency may be attained by meeting this alternative RA specification <sup>a</sup> .....
SO <sub>2</sub> or NO <sub>x</sub> concentration	≤ 7.5%	(RM) <sub>avg</sub> ≤ 250 ppm <sup>b</sup>	± 12.0 ppm
NO <sub>x</sub> -diluent	≤ 7.5%	(RM) <sub>avg</sub> ≤ 0.200 lb/mmBtu	± 0.015 lb/mmBtu
Flow	≤ 7.5%	(RM) <sub>avg</sub> ≤ 10.0 ft/sec	± 1.5 ft/sec
CO <sub>2</sub> or O <sub>2</sub>	≤ 7.5%	-----	± 0.7% CO <sub>2</sub> or O <sub>2</sub>
Moisture	≤ 7.5%	-----	± 1.0% H <sub>2</sub> O

<sup>a</sup> The alternative RA specification is the difference between the mean CEMS and reference method values from the RATA, i.e., [(CEMS)<sub>avg</sub> - (RM)<sub>avg</sub>]

<sup>b</sup> (RM)<sub>avg</sub> is the mean value of the reference method measurements from the RATA

- For the flow-to-load ratio (or gross heat rate) test, which is not required for initial certification, the pass/fail criterion is the absolute average percent deviation of the hourly flow-to-load ratios (or hourly heat rates) from the reference ratio (or reference heat rate). Table 19, below, summarizes the acceptance criteria.

**Table 19: Flow-to-Load Ratio or Gross Heat Rate  
Test Acceptance Criteria**

For this QA test....	If the unit load (or combined load for a common stack) during the last normal-load flow RATA was....	Then, to pass the test, the absolute average percent deviation from the reference ratio or heat rate must be....	
Flow-to-load ratio or Gross heat rate	≥ 60 MW or ≥ 500 klb/hr of steam	≤ 15.0% if unadjusted flow rates are used in the calculations	≤ 10.0% if bias-adjusted flow rates are used in the calculations
Flow-to-load ratio or Gross heat rate	< 60 MW or < 500 klb/hr of steam	≤ 20.0% if unadjusted flow rates are used in the calculations	≤ 15.0% if bias-adjusted flow rates are used in the calculations