Question 4.1

Topic: NO_x Emission Rate System Availability

Question: How is the percent monitor data availability of a NO_x-diluent monitoring system determined?

Answer: For any CEM system, the percent monitor data availability (PMA) represents a ratio of quality-assured monitor operating hours (i.e., "monitor available hours") to unit operating hours, over a specified period of time.

For a unit equipped with a NO_x-diluent monitoring system, § 75.33(c) states that a valid NO_x emission rate (i.e., lb/mmBtu) must be obtained for each unit operating hour; otherwise, the missing data procedures apply, decreasing the PMA of the monitoring system. Since the hourly NO_x emission rate is a derived (i.e., calculated) value that depends upon two valid monitor readings, one from a NO_x monitor and the other from a diluent (CO_2 or O_2) monitor, the PMA of a NO_x-diluent system also depends on the validity of these two readings. If either hourly reading is invalid (or if both readings are invalid), the NO_x emission rate for that hour is also invalid, and the system PMA decreases.

The hourly lb/mmBtu value from a NO_x-diluent monitoring system is considered to be invalid if: (1) an insufficient number of valid data points are obtained for either the NO_x monitor or the diluent monitor -- see § 75.10(d)(3); or (2) either monitor fails a daily calibration error test -- see Appendix B, Section 2.1.4(a); or (3) either monitor fails a quarterly linearity check -- see Appendix B, Section 2.2.3(e); or (4) the system fails a RATA -- see Appendix B, Section 2.3.2(e).

References: § 75.10(d)(3), § 75.33(c), Appendix B, Sections 2.1.4(a), 2.2.3(e), and 2.3.2(e)

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