

Question 8.26

Topic: Time Per RATA Run

Question: For a Part 75 RATA, what is the minimum acceptable time per run?

Answer: Section 6.5.7 in Appendix A to Part 75 specifies that the minimum RATA run time is 21 minutes for a gas monitoring system or moisture monitoring system RATA and five minutes for a flow RATA. Note that the 21-minute run time for moisture system RATA appears to conflict with Sections 8.1.1.2 and 8.2.2 of EPA Reference Method 4 (RM4) in Appendix A of 40 CFR 60. On one hand, Section 8.1.1.2 of RM4 requires collection of a minimum sample volume of 21 scf at a rate no greater than 0.075 scfm, when regular Method 4 is used, which equates to a sampling time of 28 minutes.

On the other hand, when Approximation Method 4 (midget impinger technique) is used, Section 8.2.2 of RM 4 caps the sample volume at approximately 30 liters of gas, collected at a rate of two liters/min, which equates to a sample time of 15 minutes. The Acid Rain Program allows either regular Method 4 or Approximation Method 4 to be used as the reference method for moisture RATA testing. Therefore, when RM 4 is used for Acid Rain Program applications, determine the appropriate sample collection time (21 minutes, 28 minutes, or 15 minutes) as follows:

- (1) When regular Method 4 is used for a Part 75 moisture monitoring system RATA, the minimum acceptable time per RATA run is 21 minutes, as stated in Section 6.5.7 of Appendix A to Part 75. To meet this requirement, concurrent data must be collected with the CEMS and with the Method 4 sampling train for at least 21 minutes. The Method 4 sample collection time of 21 minutes, although less than the 28 minutes specified in Section 8.1.1.2 of Method 4, is consistent with Section 8.4.3.1 of Performance Specification No. 2 (PS No. 2) in Appendix B to 40 CFR 60, which states, in reference to reference method sampling for RATA applications, "...For integrated samples (e.g., Methods 6 and 4), make a sample traverse of at least *21 minutes*, sampling for an equal time at each traverse point...".
- (2) When Approximation Method 4 is used for a Part 75 moisture monitoring system RATA, the minimum acceptable time for each RATA run is also 21 minutes. Collect the RM and CEMS data concurrently, with the understanding that in this case only the CEMS data can be collected for the full 21 minute period, because the recommended sampling time for Approximation Method 4 (as specified in Section 3.2.2 of Method 4) is about 15 minutes.
- (3) When Reference Method 4 data are used for gas monitoring system RATAs, to correct pollutant and diluent concentrations for moisture, either perform the moisture sampling concurrently with the pollutant

and diluent concentration measurements as described in (1) or (2), above, or follow the guideline in Section 6.5.7 of Appendix A to Part 75, which allows non-concurrent collection of the pollutant/diluent data and auxiliary data such as moisture, provided that for each RATA run, all necessary data are obtained within a 60 minute period.

However, if the moisture data and the pollutant/diluent data are collected non-concurrently, the moisture sample collection time must be in accordance with Section 8.1.1.2 or 8.2.2 of Method 4, as applicable.

References: 40 CFR Part 60, Appendix A (RM 4, Sections 8.1.1.2 and 8.2.2), Appendix B (PS 2, Section 8.4.3.1); 40 CFR Part 75, Appendix A, Section 6.5.7

History: First published in October 1999 Revised Manual; revised in October 2003 Revised Manual