

Question 15.1

Topic: Missing Data -- Units with Add-on Emission Controls

Question: How are the appropriate substitute data values determined during missing data periods, for units with add-on emission controls?

Answer: The owner or operator of a unit with add-on SO₂ or NO_x emission controls has the following options with respect to missing data substitution:

(1) Standard Missing Data Routines with Parametric Supporting Data

The owner or operator may use the standard missing data routines in § 75.33 provided that the parametric data specified in § 75.58(b)(3) are recorded and maintained on-site, and that the data document proper operation of the control device during the missing data period. The owner or operator is not required to report the parametric information to EPA unless the Agency requests it.

The owner or operator must determine the acceptable range of values for each parameter that is used to demonstrate proper operation of the emission controls, and must document the parameters and ranges in the unit's QA plan. The owner or operator must also keep hourly records of the parameters during missing data periods, to show whether the add-on control device is operating inside or outside of the acceptable ranges.

In each quarterly report, the designated representative must certify that the add-on emission controls were operating properly during all missing data periods in which the standard missing data routines were used, and that the substitute values do not systematically underestimate SO₂ or NO_x emissions. For any missing data hour(s) in which the add-on controls are not documented to be in proper operation, the maximum potential SO₂ concentration or the maximum potential NO_x emission rate (as applicable) must be reported, unless quality-assured CEMS data from certified inlet monitoring systems are available -- in which case, the CEMS data may be reported in lieu of the maximum potential values.

(2) Alternatives to the Standard Missing Data Algorithms

On January 24, 2008, EPA published revisions to the missing data provisions in § 75.34 for units with add-on SO₂ and NO_x emission controls (see 73 FR 4318, January 24, 2008). Paragraph (a)(3) was revised and a new paragraph (a)(5) was added. These revisions allow certain alternative substitute data values to be reported, for missing data periods where parametric data are available to document proper operation of the emission controls. Specifically:

- _ When the percent monitor data availability (PMA) of an SO₂ or NO_x monitoring system is between 80 and 90 percent, instead of reporting the maximum value of SO₂ concentration, NO_x concentration, or NO_x emission rate in a lookback period, revised § 75.34(a)(3) allows you to

report the maximum *controlled* value in the lookback period.

_ When the PMA of an SO₂ or NO_x monitoring system is below 80 percent, instead of reporting the maximum potential value of SO₂ concentration, NO_x concentration, or NO_x emission rate, § 75.34(a)(5) allows you to report , as applicable:

-- The greater of the maximum expected SO₂ or NO_x concentration (MEC) or 1.25 times the maximum controlled concentration in the lookback period; or

-- The greater of the maximum controlled NO_x emission rate (MCR) or 1.25 times the maximum controlled NO_x emission rate in the lookback period.

These modifications to the standard missing data routines take into account the operating status of the add-on emission controls during the missing data period, while preserving the conservative nature of missing data substitution.

(3) Parametric Missing Data Substitution Method

The owner or operator may petition EPA to make limited use of sitespecific parametric monitoring to calculate substitute values during missing data periods, in lieu of using the standard missing data routines and allowable alternatives described in paragraphs (1) and (2), above. This option is referenced in §§ 75.34(a)(4), 75.34(c), and 75.66(e), and is described in detail in Section 1 of Appendix C.

The petition must be approved by EPA prior to implementing a parametric substitution approach. Once the petition is approved by EPA, the owner or operator must use an automated data acquisition and handling system to continuously record and report the parameters specified in Appendix C (and any other parameters approved during the petition process) for use in determining the substitute values used to fill in for missing CEM data.

Note that § 75.34(c) and Section 1.1 of Appendix C state that use of an approved parametric scheme for providing substitute data is restricted to missing data hours where the PMA remains at 90 percent or above. If the PMA falls below 90 percent, then the owner or operator must use the missing data substitution procedures described in paragraphs (1) and (2), above.

References: § 75.33, § 75.34, § 75.58(b), § 75.64(c), § 75.66(e), Appendix C

History: First published in May 1993, Update #1; revised July 1995, Update #6; revised in October 1999 Revised Manual; revised in October 2003 Revised Manual; revised in 2013 Manual