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(b) The monitor data availability shall be calculated for each hour during each missing data period. The owner or operator shall record the percent monitor data availability for each hour of each missing data period to implement the missing data substitution procedures.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26529, 26567, May 17, 1995; 61 FR 59160, Nov. 20, 1996; 64 FR 28602, May 26, 1999; 67 FR 40434, June 12, 2002; 70 FR 28680, May 18, 2005; 73 FR 4346, Jan. 24, 2008]

§ 75.33 Standard missing data procedures for SO₂, NO_x, Hg, and flow rate.

(a) Following initial certification of the required SO₂, NO_x, and flow rate monitoring system(s) at a particular unit or stack location (*i.e.*, the date and time at which quality-assured data begins to be recorded by CEMS(s) at that location) and upon completion of the first 720 quality-assured monitor operating hours (for SO₂) or the first 2,160 quality-assured monitor operating hours (for flow, NO_x emission rate, or NO_x concentration), the owner or operator shall provide substitute data required under this subpart according to the procedures in paragraphs (b) and (c) of this section and depicted in Table 1 (SO₂) and Table 2 of this section (NO_x, flow). The owner or operator may either implement the provisions of paragraphs (b) and (c) of this section on a non-fuel-specific basis, or may, as described in paragraphs (b)(5), (b)(6), (c)(7) and (c)(8) of this section, provide fuel-specific substitute data values. Notwithstanding these requirements, if three years (26,280 clock hours) have elapsed since the date and hour of initial certification, and fewer than 720 (or 2,160, as applicable) quality-assured monitor operating hours have been recorded, the owner or operator shall begin using the missing data procedures of this section. The owner or operator of a unit shall substitute for missing data using quality-assured monitor operating hours of data from no earlier than three years (26,280 clock hours) prior to the date and time of the missing data period.

(b) *SO₂ concentration data.* For each hour of missing SO₂ concentration data,

(1) If the monitor data availability is equal to or greater than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for that hour of the missing data period according to the following procedures:

(i) For a missing data period less than or equal to 24 hours, substitute the average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period greater than 24 hours, substitute the greater of:

(A) The 90th percentile hourly SO₂ concentration recorded by an SO₂ pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or

(B) The average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(2) If the monitor data availability is at least 90.0 percent but less than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for that hour of the missing data period according to the following procedures:

(i) For a missing data period of less than or equal to 8 hours, substitute the average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(ii) For a missing data period of more than 8 hours, substitute the greater of:

(A) the 95th percentile hourly SO₂ concentration recorded by an SO₂ pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or

(B) The average of the hourly SO₂ concentrations recorded by an SO₂ pollutant concentration monitor for the hour before and the hour after the missing data period.

(3) If the monitor data availability is at least 80.0 percent but less than 90.0 percent, the owner or operator shall substitute for that hour of the missing

data period the maximum hourly SO₂ concentration recorded by an SO₂ pollutant concentration monitor during the previous 720 quality-assured monitor operating hours.

(4) If the monitor data availability is less than 80.0 percent, the owner or operator shall substitute for that hour of the missing data period the maximum potential SO₂ concentration, as defined in section 2.1.1.1 of appendix A to this part.

(5) For units that combust more than one type of fuel, the owner or operator may opt to implement the missing data routines in paragraphs (b)(1) through (b)(4) of this section on a fuel-specific basis. If this option is selected, the owner or operator shall document this in the monitoring plan required under § 75.53.

(6) Use the following guidelines to implement paragraphs (b)(1) through (b)(4) of this section on a fuel-specific basis:

(i) Separate the historical, quality-assured SO₂ concentration data according to the type of fuel combusted;

(ii) For units that co-fire different types of fuel, either group the co-fired hours with the historical data for the fuel with the highest SO₂ emission rate (e.g., if diesel oil and pipeline natural gas are co-fired, count co-fired hours as oil-burning hours), or separate the co-fired hours from the single-fuel hours;

(iii) For the purposes of providing substitute data under paragraph (b)(4) of this section, determine a separate, fuel-specific maximum potential SO₂ concentration (MPC) value for each type of fuel combusted in the unit, in a manner consistent with section 2.1.1.1 of appendix A to this part. For fuel that qualifies as pipeline natural gas or natural gas (as defined in § 72.2 of this chapter), the owner or operator shall, for the purposes of determining the MPC, either determine the maximum total sulfur content and minimum gross calorific value (GCV) of the gas by fuel sampling and analysis or shall use a default total sulfur content of 0.05 percent by weight (dry basis) and a default GCV value of 950 Btu/scf. For co-firing, the MPC value shall be based on the fuel with the highest SO₂ emission rate. The exact methodology used to determine each fuel-specific MPC

value shall be documented in the monitoring plan for the unit or stack; and

(iv) For missing data periods that require 720-hour (or, if applicable, 3-year) lookbacks, use historical data for the type of fuel combusted during each hour of the missing data period to determine the appropriate substitute data value for that hour. For co-fired missing data hours, if the historical data are separated into single-fuel and co-fired hours, use co-fired data to provide the substitute data values. Otherwise, use data for the fuel with the highest SO₂ emission rate to provide substitute data values for co-fired missing data hours.

(7) Table 1 summarizes the provisions of paragraphs (b)(1) through (b)(6) of this section.

(c) *Volumetric flow rate, NO_x emission rate and NO_x concentration data.* Use the procedures in this paragraph to provide substitute NO_x and flow rate data for all affected units for which load-based ranges have been defined in accordance with section 2 of appendix C to this part. For units that do not produce electrical or thermal output (*i.e.*, non-load-based units), use the procedures in this paragraph only to provide substitute data for volumetric flow rate, and only if operational bins have been defined for the unit, as described in section 3 of appendix C to this part. Otherwise, use the applicable missing data procedures in paragraph (d) or (e) of this section for non-load-based units. For each hour of missing volumetric flow rate data, NO_x emission rate data, or NO_x concentration data used to determine NO_x mass emissions:

(1) If the monitor data availability is equal to or greater than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for that hour of the missing data period according to the following procedures:

(i) For a missing data period less than or equal to 24 hours, substitute, as applicable, for each missing hour, the arithmetic average of the flow rates or NO_x emission rates or NO_x concentrations recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours at the

corresponding unit load range or operational bin, as determined using the procedure in appendix C to this part.

(ii) For a missing data period greater than 24 hours, substitute, as applicable, for each missing hour, the greater of:

(A) The 90th percentile hourly flow rate or the 90th percentile NO_x emission rate or the 90th percentile NO_x concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours at the corresponding unit load range or operational bin, as determined using the procedure in appendix C to this part; or

(B) The average of the recorded hourly flow rates, NO_x emission rates or NO_x concentrations recorded by a monitoring system for the hour before and the hour after the missing data period.

(2) If the monitor data availability is at least 90.0 percent but less than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for that hour of the missing data period according to the following procedures:

(i) For a missing data period of less than or equal to 8 hours, substitute, as applicable, the arithmetic average hourly flow rate or NO_x emission rate or NO_x concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours at the corresponding unit load range or operational bin, as determined using the procedure in appendix C to this part.

(ii) For a missing data period greater than 8 hours, substitute, as applicable, for each missing hour, the greater of:

(A) The 95th percentile hourly flow rate or the 95th percentile NO_x emission rate or the 95th percentile NO_x concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours at the corresponding unit load range or operational bin, as determined using the procedure in appendix C to this part; or

(B) The average of the hourly flow rates, NO_x emission rates or NO_x concentrations recorded by a monitoring system for the hour before and the hour after the missing data period.

(3) If the monitor data availability is at least 80.0 percent but less than 90.0 percent, the owner or operator shall, by means of the automated data acquisition and handling system, substitute, as applicable, for that hour of the missing data period, the maximum hourly flow rate or the maximum hourly NO_x emission rate or the maximum hourly NO_x concentration recorded during the previous 2,160 quality-assured monitor operating hours at the corresponding unit load range or operational bin, as determined using the procedure in appendix C to this part.

(4) If the monitor data availability is less than 80.0 percent, the owner or operator shall substitute, as applicable, for that hour of the missing data period, the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part, or the maximum NO_x emission rate, as defined in section 2.1.2.1 of appendix A to this part, or the maximum potential NO_x concentration, as defined in section 2.1.2.1 of appendix A to this part. In addition, when non-load-based operational bins are used, the owner or operator shall substitute the maximum potential flow rate for any hour in the missing data period in which essential operating or parametric data are unavailable and the operational bin cannot be determined.

(5) This paragraph, (c)(5), does not apply to non-load-based, affected units using operational bins. Whenever no prior quality-assured flow rate data, NO_x concentration data or NO_x emission rate data exist for the corresponding load range, the owner or operator shall substitute, as applicable, for each hour of missing data, the maximum hourly flow rate or the maximum hourly NO_x concentration or maximum hourly NO_x emission rate at the next higher level load range for which quality-assured data are available.

(6) Whenever no prior quality-assured flow rate data, NO_x concentration data or NO_x emission rate data exist at either the corresponding load range (or a higher load range) or at the corresponding operational bin, the owner or operator shall substitute, as applicable, either the maximum potential NO_x

emission rate or the maximum potential NO_x concentration, as defined in section 2.1.2.1 of appendix A to this part or the maximum potential flow rate, as defined in section 2.1.4.1 of appendix A to this part.

(7) This paragraph (c)(7) does not apply to affected units using non-load-based operational bins. For units that combust more than one type of fuel, the owner or operator may opt to implement the missing data routines in paragraphs (c)(1) through (c)(6) of this section on a fuel-specific basis. If this option is selected, the owner or operator shall document this in the monitoring plan required under §75.53.

(8) This paragraph, (c)(8), does not apply to affected units using non-load-based operational bins. Use the following guidelines to implement paragraphs (c)(1) through (c)(6) of this section on a fuel-specific basis:

(i) Separate the historical, quality-assured NO_x emission rate, NO_x concentration, or flow rate data according to the type of fuel combusted;

(ii) For units that co-fire different types of fuel, either group the co-fired hours with the historical data for the fuel with the highest NO_x emission rate, NO_x concentration or flow rate, or separate the co-fired hours from the single-fuel hours;

(iii) For the purposes of providing substitute data under paragraph (c)(4) of this section, a separate, fuel-specific maximum potential concentration (MPC), maximum potential NO_x emis-

sion rate (MER), or maximum potential flow rate (MPF) value (as applicable) shall be determined for each type of fuel combusted in the unit, in a manner consistent with §72.2 of this chapter and with section 2.1.2.1 or 2.1.4.1 of appendix A to this part. For co-firing, the MPC, MER or MPF value shall be based on the fuel with the highest emission rate or flow rate (as applicable). Furthermore, for a unit with add-on NO_x emission controls, a separate fuel-specific maximum controlled NO_x emission rate (MCR) or maximum expected NO_x concentration (MEC) value (as applicable) shall be determined for each type of fuel combusted in the unit. The exact methodology used to determine each fuel-specific MPC, MER, MEC, MCR or MPF value shall be documented in the monitoring plan for the unit or stack.

(iv) For missing data periods that require 2,160-hour (or, if applicable, 3-year) lookbacks, use historical data for the type of fuel combusted during each hour of the missing data period to determine the appropriate substitute data value for that hour. For co-fired missing data hours, if the historical data are separated into single-fuel and co-fired hours, use co-fired data to provide the substitute data values. Otherwise, use data for the fuel with the highest NO_x emission rate, NO_x concentration or flow rate (as applicable) to provide substitute data values for co-fired missing data hours. Tables 1 and 2 follow.

TABLE 1—MISSING DATA PROCEDURE FOR SO₂ CEMS, CO₂ CEMS, MOISTURE CEMS, Hg CEMS, AND DILUENT (CO₂ OR O₂) MONITORS FOR HEAT INPUT DETERMINATION

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) ²	Method	Lookback period
95 or more (90 or more for Hg)	N ≤ 24	Average	HB/HA.
	N > 24	For SO ₂ , CO ₂ , Hg, and H ₂ O**, the greater of: Average 90th percentile For O ₂ and H ₂ O ^x , the lesser of: 10th percentile	HB/HA. 720 hours.* HB/HA. 720 hours.*
90 or more, but below 95 (> 80 but < 90 for Hg).	N ≤ 8	Average	HB/HA.
	N > 8	For SO ₂ , CO ₂ , Hg, and H ₂ O**, the greater of: Average 95th percentile For O ₂ and H ₂ O ^x , the lesser of: Average 5th Percentile	HB/HA. 720 hours.* HB/HA. 720 hours.*

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TABLE 1—MISSING DATA PROCEDURE FOR SO₂ CEMS, CO₂ CEMS, MOISTURE CEMS, Hg CEMS, AND DILUENT (CO₂ OR O₂) MONITORS FOR HEAT INPUT DETERMINATION—Continued

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) ²	Method	Lookback period
80 or more, but below 90 (> 70 but < 80 for Hg).	N > 0	For SO ₂ , CO ₂ , Hg, and H ₂ O: ** Maximum value ¹	720 hours.*
		For O ₂ and H ₂ O ^x : Minimum value ¹	720 hours.*
Below 80 (Below 70 for Hg)	N > 0	Maximum potential concentration ³ or % (for SO ₂ , CO ₂ , Hg, and H ₂ O**) or Minimum potential concentration or % (for O ₂ and H ₂ O ^x).	None.

HB/HA = hour before and hour after the CEMS outage.
 * Quality-assured, monitor operating hours, during unit operation. May be either fuel-specific or non-fuel-specific. For units that report data only for the ozone season, include only quality assured monitor operating hours within the ozone season in the lookback period. Use data from no earlier than 3 years prior to the missing data period.
¹ Where a unit with add-on SO₂ or Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in § 75.34, the unit may use the maximum controlled concentration from the previous 720 quality-assured monitor operating hours.
² During unit operating hours.
³ Alternatively, where a unit with add-on SO₂ or Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in § 75.34, the unit may report the greater of: (a) the maximum expected SO₂ or Hg concentration or (b) 1.25 times the maximum controlled value from the previous 720 quality-assured monitor operating hours.
^x Use this algorithm for moisture except when Equation 19–3, 19–4 or 19–8 in Method 19 in appendix A–7 to part 60 of this chapter is used for NO_x emission rate.
 ** Use this algorithm for moisture *only* when Equation 19–3, 19–4 or 19–8 in Method 19 in appendix A–7 to part 60 of this chapter is used for NO_x emission rate.

TABLE 2—LOAD-BASED MISSING DATA PROCEDURE FOR NO_x-DILUENT CEMS, NO_x CONCENTRATION CEMS AND FLOW RATE CEMS

Trigger conditions		Calculation routines		
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) ²	Method	Lookback period	Load ranges
95 or more	N ≤ 24 N > 24	Average	2,160 hours *	Yes.
		The greater of: Average	HB/HA	No.
		90th percentile	2,160 hours *	Yes.
90 or more, but below 95	N ≤ 8 N > 8	Average	2,160 hours *	Yes.
		The greater of: Average	HB/HA	No.
		95th percentile	2,160 hours *	Yes.
80 or more, but below 90	N > 0	Maximum value ¹	2,160 hours *	Yes.
Below 80	N > 0	Maximum potential NO _x emission rate ³ ; or maximum potential NO _x concentration ³ ; or maximum potential flow rate.	None	No.

HB/HA = hour before and hour after the CEMS outage.
 * Quality-assured, monitor operating hours, using data at the corresponding load range ("load bin") for each hour of the missing data period. May be either fuel-specific or non-fuel-specific. For units that report data only for the ozone season, include only quality assured monitor operating hours within the ozone season in the lookback period. Use data from no earlier than three years prior to the missing data period.
¹ Where a unit with add-on NO_x emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in § 75.34, the unit may use the maximum controlled NO_x concentration or emission rate from the previous 2,160 quality-assured monitor operating hours. Units with add-on controls that report NO_x mass emissions on a year-round basis under subpart H of this part may use separate ozone season and non-ozone season data pools to provide substitute data values, as described in § 75.34(a)(2).
² During unit operating hours.
³ Alternatively, where a unit with add-on NO_x emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in § 75.34, the unit may report the greater of: (a) the maximum expected NO_x concentration (or maximum controlled NO_x emission rate, as applicable); or (b) 1.25 times the maximum controlled value at the corresponding load bin, from the previous 2,160 quality-assured monitor operating hours.

(9) The load-based provisions of paragraphs (c)(1) through (c)(8) of this section are summarized in Table 2 of this section. The non-load-based provisions for volumetric flow rate, found in paragraphs (c)(1) through (c)(4), and (c)(6) of this section, are presented in Table 4 of this section.

(d) *Non-load-based* NO_x emission rate and NO_x concentration data. Use the procedures in this paragraph to provide substitute NO_x data for affected units that do not produce electrical output (in megawatts) or thermal output (in klb/hr of steam). For each hour of missing NO_x emission rate data, or NO_x concentration data used to determine NO_x mass emissions:

(1) If the monitor data availability is equal to or greater than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for that hour of the missing data period according to the following procedures:

(i) For a missing data period less than or equal to 24 hours, substitute, as applicable, for each missing hour, the arithmetic average of the NO_x emission rates or NO_x concentrations recorded by a monitoring system in a 2,160 hour lookback period. The lookback period may be comprised of either:

(A) The previous 2,160 quality-assured monitor operating hours, or

(B) The previous 2,160 quality-assured monitor operating hours at the corresponding operational bin, if operational bins, as defined in section 3 of appendix C to this part, are used.

(ii) For a missing data period greater than 24 hours, substitute, for each missing hour, the 90th percentile NO_x emission rate or the 90th percentile NO_x concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours (or during the previous 2,160 quality-assured monitor operating hours at the corresponding operational bin, if operational bins are used).

(2) If the monitor data availability is at least 90.0 percent but less than 95.0 percent, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for that hour of the missing data period according to the following procedures:

(i) For a missing data period of less than or equal to eight hours, substitute, as applicable, the arithmetic average of the hourly NO_x emission rates or NO_x concentrations recorded by a monitoring system during the pre-

vious 2,160 quality-assured monitor operating hours (or during the previous 2,160 quality-assured monitor operating hours at the corresponding operational bin, if operational bins are used).

(ii) For a missing data period greater than eight hours, substitute, for each missing hour, the 95th percentile hourly flow rate or the 95th percentile NO_x emission rate or the 95th percentile NO_x concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours (or during the previous 2,160 quality-assured monitor operating hours at the corresponding operational bin, if operational bins are used).

(3) If the monitor data availability is at least 80.0 percent but less than 90.0 percent, the owner or operator shall, by means of the automated data acquisition and handling system, substitute, as applicable, for that hour of the missing data period, the maximum hourly NO_x emission rate or the maximum hourly NO_x concentration recorded during the previous 2,160 quality-assured monitor operating hours (or during the previous 2,160 quality-assured monitor operating hours at the corresponding operational bin, if operational bins are used).

(4) If the monitor data availability is less than 80.0 percent, the owner or operator shall substitute, as applicable, for that hour of the missing data period, the maximum NO_x emission rate, as defined in §72.2 of this chapter, or the maximum potential NO_x concentration, as defined in section 2.1.2.1 of appendix A to this part. In addition, when operational bins are used, the owner or operator shall substitute (as applicable) the maximum potential NO_x emission rate or the maximum potential NO_x concentration for any hour in the missing data period in which essential operating or parametric data are unavailable and the operational bin cannot be determined.

(5) If operational bins are used and no prior quality-assured NO_x concentration data or NO_x emission rate data exist for the corresponding operational bin, the owner or operator shall substitute, as applicable, either the maximum potential NO_x emission rate, as defined in §72.2 of this chapter, or the

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maximum potential NO_x concentration, as defined in section 2.1.2.1 of appendix A to this part.

(6) Table 3 of this section summarizes the provisions of paragraphs (d)(1) through (d)(5) of this section.

(e) *Non-load-based volumetric flow rate data.* (1) If operational bins, as defined in section 3 of appendix C to this part, are used for a unit that does not produce electrical or thermal output, use the missing data procedures in paragraph (c) of this section to provide substitute volumetric flow rate data for the unit.

(2) If operational bins are not used, modify the procedures in paragraph (c) of this section as follows:

(i) In paragraphs (c)(1) through (c)(3), the words “previous 2,160 quality-as-

sured monitor operating hours” shall apply rather than “previous 2,160 quality-assured monitor operating hours at the corresponding unit load range or operational bin, as determined using the procedure in appendix C to this part;”

(ii) The last sentence in paragraph (c)(4) does not apply;

(iii) Paragraphs (c)(5), (c)(7), and (c)(8) are not applicable; and

(iv) In paragraph (c)(6), the words, “for either the corresponding load range (or a higher load range) or at the corresponding operational bin” do not apply.

(3) Table 4 of this section summarizes the provisions of paragraphs (e)(1) and (e)(2) of this section. Tables 3 and 4 follow:

TABLE 3—NON-LOAD-BASED MISSING DATA PROCEDURE FOR NO_x-DILUENT CEMS AND NO_x CONCENTRATION CEMS

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) ¹	Method	Lookback period
95 or more	N ≤ 24	Average	2,160 hours.*
	N > 24	90th percentile	2,160 hours.*
90 or more, but below 95	N ≤ 8	Average	2,160 hours.*
	N > 8	95th percentile	2,160 hours.*
80 or more, but below 90	N > 0	Maximum value ³	2,160 hours.*
	N > 0	Maximum potential NO _x emission rate ² or maximum potential NO _x concentration ² .	None.
Below 80, or operational bin indeterminate.	N > 0		

* If operational bins are used, the lookback period is 2,160 quality-assured, monitor operating hours, and data at the corresponding operational bin are used to provide substitute data values. If operational bins are not used, the lookback period is the previous 2,160 quality-assured monitor operating hours. For units that report data only for the ozone season, include only quality-assured monitor operating hours within the ozone season in the lookback period. Use data from no earlier than three years prior to the missing data period.

¹ During unit operation.

² Alternatively, where a unit with add-on NO_x emission controls can demonstrate that the controls are operating properly, as provided in § 75.34, the unit may report the greater of: (a) the maximum expected NO_x concentration, (or maximum controlled NO_x emission rate, as applicable); or (b) 1.25 times the maximum controlled value at the corresponding operational bin (if applicable), from the previous 2,160 quality-assured monitor operating hours.

³ Where a unit with add-on NO_x emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in § 75.34, the unit may use the maximum controlled NO_x concentration or emission rate from the previous 2,160 quality-assured monitor operating hours. Units with add-on controls that report NO_x mass emissions on a year-round basis under subpart H of this part may use separate ozone season and non-ozone season data pools to provide substitute data values, as described in § 75.34(a)(2).

TABLE 4—NON-LOAD-BASED MISSING DATA PROCEDURE FOR FLOW RATE CEMS

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) ¹	Method	Lookback period
95 or more	N ≤ 24	Average	2160 hours*
	N > 24	The greater of:	HB/HA
90 or more, but below 95	N ≤ 8	Average	2160 hours*
		90th percentile	2160 hours*
90 or more, but below 95	N ≤ 8	Average	2160 hours*
		Average	2160 hours*

TABLE 4—NON-LOAD-BASED MISSING DATA PROCEDURE FOR FLOW RATE CEMS—Continued

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours) ¹	Method	Lookback period
	N > 8	The greater of: Average 95th percentile HB/HA 2160 hours*.	
80 or more, but below 90	N > 0	Maximum value	2160 hours*
Below 80, or operational bin indeterminate.	N > 0	Maximum potential flow rate	None

* If operational bins are used, the lookback period is the previous 2,160 quality-assured, monitor operating hours and data at the corresponding operational bin are used to provide substitute data values. If operational bins are not used, the lookback period is the previous 2,160 quality-assured, monitor operating hours. For units that report data only for the ozone season, include only quality-assured monitor operating hours within the ozone season in the lookback period. Use data from no earlier than three years prior to the missing data period.

¹During unit operation.

[58 FR 3701, Jan. 11, 1993, as amended at 60 FR 26529, May 17, 1995; 61 FR 25582, May 22, 1996; 64 FR 28602, May 26, 1999; 67 FR 40434, June 12, 2002; 67 FR 53505, Aug. 16, 2002; 67 FR 57274, Sept. 9, 2002; 70 FR 28680, May 18, 2005; 73 FR 4346, Jan. 24, 2008]

§ 75.34 Units with add-on emission controls.

(a) The owner or operator of an affected unit equipped with add-on SO₂ and/or NO_x emission controls shall provide substitute data in accordance with paragraphs (a)(1), through (a)(5) of this section for each hour in which quality-assured data from the outlet SO₂ and/or NO_x monitoring system(s) are not obtained.

(1) The owner or operator may use the missing data substitution procedures specified in §§ 75.31 through 75.33 to provide substitute data for any missing data hour(s) in which the add-on emission controls are documented to be operating properly, as described in the quality assurance/quality control program for the unit, required by section 1 in appendix B of this part. To provide the necessary documentation, the owner or operator shall, for each missing data period, record parametric data to verify the proper operation of the SO₂ or NO_x add-on emission controls during each hour, as described in paragraph (d) of this section. For any missing data hour(s) in which such parametric data are either not provided or, if provided, do not demonstrate that proper operation of the SO₂ or NO_x add-on emission controls has been maintained, the owner or operator shall substitute (as applicable) the maximum potential NO_x con-

centration (MPC) as defined in section 2.1.2.1 of appendix A to this part, the maximum potential NO_x emission rate, as defined in § 72.2 of this chapter, or the maximum potential concentration for SO₂, as defined by section 2.1.1.1. Alternatively, for SO₂ or NO_x, the owner or operator may substitute, if available, the hourly SO₂ or NO_x concentration recorded by a certified inlet monitor, in lieu of the MPC. For each hour in which data from an inlet monitor are reported, the owner or operator shall use a method of determination code (MODC) of “22” (see Table 4a in § 75.57). In addition, under § 75.64(c), the designated representative shall submit as part of each electronic quarterly report, a certification statement, verifying the proper operation of the SO₂ or NO_x add-on emission control for each missing data period in which the missing data procedures of §§ 75.31 through 75.33 were applied; or

(2) This paragraph, (a)(2), applies only to a unit which, as provided in § 75.74(a) or § 75.74(b)(1), reports NO_x mass emissions on a year-round basis under a state or Federal NO_x mass emissions reduction program that adopts the emissions monitoring provisions of this part. If the add-on NO_x emission controls installed on such a unit are operated only during the ozone season or are operated in a more efficient manner during the ozone season