

**MONITOR CERTIFICATION GUIDELINES FOR THE
NO_x SIP CALL and SECTION 126 TRADING PROGRAMS**

Question: For units subject to a NO_x Budget Trading program under the NO_x SIP Call or the Section 126 action, what monitor certification and/or quality assurance requirements must be met by the applicable compliance deadline?

Answer: Affected units with a SIP compliance date¹ of May 1, 2003 under the NO_x Budget Trading Program and all affected non-electrical generating (non-EGU) sources under Section 126 must have in place a NO_x mass monitoring methodology that conforms to the requirements of 40 CFR Part 75, Subpart H by May 1, 2002. Affected units with a SIP compliance date of May 1, 2004 must have in place a Subpart H-compliant NO_x mass monitoring methodology by May 1, 2003.

All required monitor certification testing for the affected units must be completed by the applicable certification deadline (i.e., May 1, 2002 or May 1, 2003)². Therefore, the grace periods for linearity checks and relative accuracy tests described in 40 CFR 75, Appendix B and in § 75.74 (c) may not be used to extend the certification deadline. The specific monitor certification and quality assurance (QA) requirements that must be met by the applicable certification deadline depend principally upon two things:

- The specific monitoring methodology selected; and
- Whether the source already has, or must obtain, monitoring equipment that meets Part 75 requirements.

The following paragraphs give the monitor certification and QA requirements for NO_x SIP Call and Section 126-affected sources currently in the Acid Rain Program and/or the Ozone Transport Commission (OTC) NO_x Budget Program, and for affected sources which are in neither of these programs.

¹ “Compliance date”, in reference to the SIP Call or Section 126 means the date on which the NO_x mass emissions data from the required monitoring systems first count against NO_x allowances held.

² Monitoring systems must be certified one year before the applicable compliance date

CATEGORY 1 (Acid Rain Program Sources)

Background

All units subject to the Acid Rain Program (ARP) are required to monitor and report SO₂, NO_x, and CO₂ emissions and heat input according to 40 CFR Part 75, using EDR version 2.1. Many Acid Rain Program units in the Northeastern United States have also been required to monitor and report NO_x mass emissions since 1998 under the OTC NO_x Budget Program. Acid Rain Program units which are affected units under the NO_x SIP Call or Section 126 programs must meet the following requirements by the applicable compliance date:

1. ARP Units in the OTC Program

For Acid Rain units currently in the OTC NO_x Budget Program, no additional monitor certification or QA requirements must be met to comply with the NO_x SIP Call or Section 126 NO_x Budget Trading Program. Owners or operators of these units should continue to quality-assure their monitoring systems in accordance with Part 75 (see **Table 2**, below) and continue to report emission data (including NO_x mass emissions) and heat input on a year-round basis, in EDR version 2.1.

2. ARP Units Not in the OTC Program

Acid Rain units which are not in the OTC NO_x Budget Program must meet the following monitor certification and QA requirements by the applicable compliance deadline under the NO_x SIP call or Section 126 NO_x Budget Trading program:

Select and implement a NO_x mass monitoring methodology that meets the requirements of 40 CFR 75, Subpart H (see **Table 1**, below);

Define a suitable NO_x mass emission formula in EDR record type 520 and perform formula verification;

Begin reporting NO_x mass emission data in EDR record type 328 (hourly emissions) and RT 307 (quarterly and cumulative emissions).

For ARP units that monitor NO_x emission rate and heat input under Part 75, EPA recommends that NO_x mass emissions be determined as the product of NO_x

(10/10/01)

emission rate and heat input rate (e.g., Case 1 under Coal-fired Units and Cases 1, 2, and 5 under Oil/Gas-fired Units in **Table 1**, below). However, if the owner or operator of a unit with a certified NO_x-diluent monitoring system elects to use data from the NO_x concentration monitor times stack flow rate to determine NO_x mass (e.g., Case 2 under Coal-fired Units and Cases 3 and 4 under Oil/Gas-fired Units in **Table 1**), then in addition to the above requirements, the owner or operator must:

- (A) Define a NO_x concentration (NOXC) monitoring system in EDR record 510, assigning it a unique system ID;
- (B) Demonstrate that the NO_x concentration monitoring system meets the 7-day calibration error test, cycle time test, linearity check, relative accuracy test audit (RATA), and bias test specifications of Part 75. In lieu of performing a separate, additional RATA for the NOXC system, the NO_x concentration data from the most recent RATA of the NO_x-diluent system may be used to show that the NOXC system meets the 10.0% (or equivalent low-emitter) relative accuracy specification. Also, the results of the cycle time and 7-day calibration error tests of the NO_x analyzer from the initial certification testing of the NO_x-diluent monitoring system may be applied to the NOXC system. However, to demonstrate compliance with the Part 75 linearity error specification, the results of the most recent linearity check of the NO_x analyzer must be used;
- (C) Report, under the NO_x concentration system ID, the results of each of the certification tests from (B) above in a quarterly Electronic Data Report (EDR) not later than the first reporting quarter in which the NOXC system is used to report NO_x mass data. If this reporting requirement is met, a formal certification application for the NOXC system need not be submitted; and
- (D) Report, under the NO_x concentration system ID, the results of all daily calibrations (RT 230), linearity checks (RT 601 & 602) and RATAs (RT 610 & RT 611) performed for on-going QA of the NOXC system.

** NOTE: If a new NOXC system is installed then compliance with all certification procedures under Part 75 is required.

CATEGORY 2 (OTC Sources Not in the Acid Rain Program)

Background

Units currently in the OTC NO_x Budget Program which are affected units under the NO_x SIP Call must come into full compliance with the monitoring and reporting provisions of 40 CFR 75, Subpart H by the applicable monitoring deadline of May 1, 2002. In most cases, this will require a change or upgrade in at least one of the following areas:

The OTC Program allows the use of certain NO_x mass monitoring methodologies and reporting options which are disallowed under Subpart H. For example, the OTC guidance allows Appendix E of Part 75 to be used for non-peaking oil and gas-fired units of less than 250 mmBtu/hr heat input capacity, whereas Subpart H restricts the use of Appendix E to peaking units. Sources using these OTC methodologies and options will have to discontinue using them and replace them with fully-compliant Subpart H monitoring methodologies by May 1, 2002.

At present, most OTC sources report data in EDR version 2.0. These sources are required to upgrade to EDR version 2.1 by May 1, 2002.

OTC sources, since the inception of the OTC Program in 1998, have been subject to the monitor certification and quality assurance requirements described in the January 28, 1997 guidance document entitled, "*Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program.*" The guidance document requires initial certification of the monitoring systems, followed by daily calibration error tests, periodic linearity checks, RATAs and other tests to provide on-going quality-assurance of the data from the monitoring systems. These QA tests are similar to the periodic QA tests described in Appendices B and D of Part 75, for Acid Rain Program units and Subpart H units. However, there are at least two important differences.

- (A) First, the OTC guidance allows up to 20.0% for the relative accuracy (RA) of a CEMS, whereas Part 75 allows a maximum RA of 10.0%. OTC sources using CEMS to determine NO_x mass emissions and heat input will have to demonstrate compliance with the more stringent Part 75 relative accuracy specification by May 1, 2002; and

(10/10/01)

- (B) Second, the OTC guidance allows 2-level linearity checks for NO_x analyzers with span values of 50 ppm or less, whereas Part 75 exempts NO_x analyzers with span values of 30 ppm or less from linearity checks and requires 3-level linearity checks in all other cases. Therefore, OTC sources currently performing 2-level linearity checks for NO_x analyzers with span values greater than 30 ppm and less than or equal to 50 ppm must now perform 3-level linearities.

The specific compliance requirements for each OTC source must be determined on a case-by-case basis. Use the following guidelines:

1. OTC Units Reporting in EDR v. 2.0 on a Year-Round Basis

An OTC source which uses continuous emission monitoring systems (CEMS) to determine NO_x mass emissions and which has been reporting emissions data on a year-round basis in EDR version 2.0 (and will continue to report on a year round basis under the SIP Call) must meet the following requirements by May 1, 2002:

The EDR version must be upgraded from v. 2.0 to v. 2.1. Use Question 14.96 in the *“Acid Rain Program Policy Manual”* as a guideline for upgrading to EDR version 2.1. See also Appendix B of the *“Revised EDR Version 2.1 Reporting Instructions–(January 24, 2001).”* Both documents are available on the Clean Air Markets Division (CAMD) Website.

For units that use CEMS to determine NO_x mass emissions, a relative accuracy test audit (RATA) of each monitoring system is required to demonstrate compliance with the Part 75 relative accuracy specification of 10.0% (or , if applicable, with the alternative RA specification in Figure 2 of Part 75, Appendix B).

- (A) The most recent RATA of the system may be used for this purpose, provided that it meets the Part 75 relative accuracy specification, and that its “window” of data validation has not expired before May 1, 2002; i.e., if, on that date:
- (1) Fewer than two QA operating quarters (as defined in § 72.2) have elapsed since the quarter of the RATA (if the RATA qualified for a semiannual frequency according to Figure 2 in Appendix B of Part 75); or
 - (2) Fewer than four QA operating quarters have elapsed since

(10/10/01)

the quarter of the RATA (if the RATA qualified for an annual frequency according to Figure 2 in Appendix B)

- (B) If the most recent RATA does not meet Part 75 specifications, or if its window of data validation expires before the May 1, 2002, then an additional RATA is required prior to that date.
- (C) The monitoring system shall be considered provisionally certified for purposes of the SIP Call, as of the date of completion of an acceptable RATA, as described in (A) or (B), above.
- (D) Once the provisional certification date of the monitoring system has been established, the owner or operator shall use that date as the reference point from which to quality assure the data from the system, according to Part 75, Appendix B, sections 2.1 (for daily assessments), 2.2 (for quarterly assessments), and 2.3 (for semiannual and annual assessments). All of the required quality assurance tests shall be done at the frequency, load levels, etc., specified in Appendix B (see **Table 2**, below).

For units that use certified fuel flowmeters to determine heat input, an accuracy test of the flowmeter, demonstrating compliance with the 2.0% accuracy standard of Appendix D, is required.

- (A) The most recent accuracy test may be used for this purpose, provided that its window of data validation is not expired on May 1, 2002; i.e., as of that date, fewer than four “fuel flowmeter QA operating quarters”(as defined in § 72.2) have elapsed since the quarter of the last accuracy test.
- (B) If the results of the most recent accuracy test do not indicate compliance, or if its window of data validation expires prior to May 1, 2002, an additional flowmeter accuracy test is required before the deadline.
- (C) The fuel flowmeter system shall be considered provisionally certified for purposes of the SIP Call, as of the date of completion of an acceptable accuracy test, as described in (A) or (B), above.

If a gas or oil-fired peaking unit elects to use Appendix E to determine NO_x emission rate, a valid Appendix E test must have been performed on or after January 1, 1998, in order to validate data for the 2002 ozone season.

(10/10/01)

Any and all variances from Part 75 quality assurance requirements currently allowed by the OTC Guidance Document or other OTC-related guidance materials are prohibited under the SIP Call.

For a unit that has a NO_x monitor with a span value greater than 30 ppm and 50 ppm, which has been performing linearity checks at two gas levels instead of three (as allowed by the OTC Guidance Document), the two-level checks must be discontinued and all linearity checks performed on or after the provisional certification date must be done at three gas levels (low, mid, high), according to Part 75, Appendix A, section 6.2.

If a unit has a NO_x monitor with a span value of 30 ppm or less, the monitor is exempted from linearity requirements³ under section 6.2 of Part 75. In this case, if the source has been performing linearity checks of the monitor, these tests should be discontinued and a linearity exemption should be claimed each quarter using EDR record type 698.

For existing OTC monitoring systems, the formal certification application process in § 75.20 is waived provided that:

- (A) All of the applicable CEMS relative accuracy and/or fuel flowmeter accuracy and/or Appendix E test requirements described in the bulleted items immediately above are met by May 1, 2002; and
- (B) The owner or operator reports the results of the required RATA(s) and/or fuel flowmeter accuracy test(s) and/or Appendix E test(s) in the electronic quarterly report for the 2nd quarter, 2002, or, if that quarter is a non-operating quarter, submits these test results in the report for the first operating quarter thereafter.

If any new monitoring systems are installed for the purpose of complying with the NO_x SIP Call, all required certification tests must be performed on these systems prior to May 1, 2002, and a formal certification application is required in accordance with § 75.20.

³ Note that this exemption only applies to NO_x monitors. For NO_x-diluent monitoring systems, a linearity check of the diluent monitor is still required, even if the NO_x component of the system is exempt

2. OTC Units Reporting in EDR v. 2.0 on an Ozone Season Basis

An OTC source which: uses continuous monitoring systems to determine NO_x mass emissions; currently reports emissions data in EDR version 2.0; and will report data on an ozone season-only basis under the SIP Call must meet the following requirements by May 1, 2002:

The EDR version must be upgraded from v. 2.0 to v. 2.1. Use Question 14.96 in the “*Acid Rain Program Policy Manual*” as a guideline for upgrading to EDR version 2.1. See also Appendix B of the “*Revised EDR Version 2.1 Reporting Instructions - (January 24, 2001)*.” Both documents are available on the CAMD Website.

Data from all monitoring systems must be quality-assured prior to the 2002 ozone season, in accordance with § 75.74 (c). That section of Subpart H describes the quality assurance tests which must be performed by ozone season-only reporters prior to each ozone season, in order to validate data in that ozone season. **Table 3**, below, summarizes the QA requirements of § 75.74 (c). Note that these QA requirements differ significantly from the requirements for year-round reporters.

Any variances from the QA requirements of § 75.74 (c) currently allowed by the OTC Guidance Document or other OTC guidance materials are prohibited, including, but not limited to, the two-level linearity checks for NO_x monitors with span values of 50 ppm or less.

For units that use certified fuel flowmeters to determine heat input, an accuracy test of the flowmeter demonstrating compliance with the 2.0% accuracy standard of Appendix D, is required.

- (A) The most recent accuracy test may be used for this purpose, provided that its window of data validation is not expired on May 1, 2002; i.e., as of that date, fewer than four fuel flowmeter QA operating quarters (as defined in § 72.2) have elapsed since the quarter of the last accuracy test.
- (B) If the results of the most recent accuracy test do not indicate compliance, or if its window of data validation expires prior to May 1, 2002, an additional flowmeter accuracy test is required before the deadline.

If a gas or oil-fired peaking unit elects to use Appendix E to determine NO_x emission rate, a valid Appendix E test must have been performed on

(10/10/01)

or after January 1, 1998, in order to validate data for the 2002 ozone season.

The formal certification application process in § 75.20 is waived for existing OTC monitoring systems that meet the QA requirements of § 75.74 (c) and (if applicable) the fuel flowmeter accuracy test and/or Appendix E test requirements described immediately above, by May 1, 2002.

Report the results of all QA tests required under § 75.74 (c) in the appropriate electronic quarterly report, in accordance with § 75.74 (c)(6).

Report the results of any required fuel flowmeter accuracy test(s) and/or Appendix E test(s) in the electronic quarterly report for the 2nd quarter, 2002, or, if that quarter is a non-operating quarter, submit these test results in the report for the first ozone season operating quarter thereafter

If any new monitoring systems are installed for the purpose of complying with the NO_x SIP Call, all required certification tests must be performed on these systems prior to May 1, 2002, and a formal certification application is required in accordance with § 75.20.

3. OTC Units Reporting in EDR v. 2.1 on a Year-Round Basis

For an OTC unit which has already voluntarily upgraded to Subpart H monitoring, and which is currently reporting NO_x mass emissions and heat input data on a year-round basis in EDR version 2.1 (and will continue to do so under the SIP Call), the compliance requirements are the same as for **ARP Units in the OTC Program** under **Category 1**, above.

4. OTC Units Reporting in EDR v. 2.1 on an Ozone Season Basis

For an OTC unit which: has already voluntarily upgraded to Subpart H monitoring; is currently reporting NO_x mass emissions and heat input data in EDR version 2.1; and will report data on an ozone season-only basis under the SIP Call:

The applicable QA requirements of § 75.74 (c) must be met prior to the 2002 ozone season (see **Table 3**, below);

In addition, for units using certified fuel flowmeters for heat input and/or using Appendix E to determine NO_x emission rate, if the window of data validation for the most recent fuel flowmeter accuracy test or Appendix E

(10/10/01)

test expires prior to the applicable compliance deadline, an additional test is required before the deadline.

5. OTC Units Required to Change Monitoring Methodology

For an OTC unit currently using a NO_x mass monitoring methodology or reporting option which is not allowed under Subpart H, a fully-compliant NO_x mass methodology (see **Table 1**, below) must be installed and provisionally certified by May 1, 2002 and the EDR version must be upgraded to v. 2.1. The use of any and all non-compliant OTC methodologies and/or reporting options must be discontinued as of that date. For example, under the OTC Program, Appendix E may be used to determine NO_x emission rate for any oil or gas unit with a heat input capacity less than 250 mmBtu/hr; however, under Subpart H, the use of Appendix E is restricted to peaking units. For a further discussion of discontinued OTC options and allowable replacement methodologies, see the document entitled, "*OTC Sources under the Federal NO_x Budget Trading Program: Guidance on Changing Monitoring Methods and Upgrading Monitoring Plans to EDR v.2.1.*" This document can be found on the CAMD website.

If a change in monitoring methodology requires any new monitoring systems to be installed for the purpose of complying with the NO_x SIP Call, all required certification tests must be performed on these systems prior to May 1, 2002, and a formal certification application is required in accordance with § 75.20.

If a unit switches from a non-compliant OTC methodology to the low mass emissions (LME) methodology in § 75.19, see "**Category 4**", below, for a discussion of the LME compliance requirements.

CATEGORY 3 **(Affected Sources not in ARP or OTC)**

Background

Many of the affected units under the NO_x SIP Call or Section 126 NO_x Budget Trading programs are not in either the Acid Rain Program or the OTC NO_x Budget Program. Included among these affected units are electrical generating units (EGUs) and non-electrical generating units (non-EGUs). By the applicable monitoring certification deadline (May 1, 2002 or May 1, 2003), each of these affected units must have in place a NO_x mass monitoring methodology that conforms to the requirements of Subpart H, and must begin reporting NO_x mass emissions and heat input data in EDR version 2.1.

Some of these affected units already have installed continuous monitoring equipment, either to meet the requirements of 40 CFR Part 60 (NSPS) or a state regulation, or to satisfy a condition in their operating permit. In some instances, the existing monitors will be able to meet Part 75 performance specifications, while in other cases, new monitors will have to be purchased and installed. However, even if the existing monitors are capable of meeting Part 75 performance specifications, few, if any, of these affected units have a data acquisition and handling system (DAHS) that meets Part 75 requirements.

Compliance Requirements

The specific compliance requirements for each affected unit must be determined on a case-by-case basis. Use the following guidelines:

First, a NO_x mass monitoring methodology which meets Subpart H requirements must be selected and implemented. Acceptable methodologies are listed in **Table 1**, below. If the owner or operator selects the low mass emissions (LME) methodology in § 75.19, see "**Category 4**" below for a discussion of the LME compliance requirements.

A data acquisition and handling system (DAHS) capable of accurately reading and electronically recording signals from the monitoring systems, performing Part 75 missing data substitution, and generating electronic quarterly reports in EDR version 2.1 format, must be installed and operational by the applicable compliance deadline. Use Question 14.96 in the "*Acid Rain Program Policy Manual*" (available on the CAMD Website) as a guideline for Part 75 DAHS verification requirements.

(10/10/01)

All required certification tests for the selected NO_x mass and heat input monitoring methodology must be completed by the monitor certification deadline. If the tests have not been completed by that date, the owner or operator must report NO_x mass and heat input data beginning on that date, in accordance with § 75.70 (g).

No later than 45 days before certification testing commences, a complete monitoring plan for the affected unit(s) must be submitted, in accordance with §§ 75.53, 75.62, and 75.73 (c). A notice of certification testing must also be provided according to § 75.61, with one exception - a test notice is not required for fuel flowmeter certifications.

Except as provided in the next bulleted item below, the Part 75-compliant DAHS must be installed and operational before certification testing commences. EPA recommends the following certification test sequence for CEMS: DAHS verification, calibration gas tests (i.e., linearity check, cycle time, and 7-day calibration error tests), and RATA.

A source with an existing CEMS that has not been certified in accordance with Part 75 requirements may perform the RATA portion of the certification test sequence for the CEMS prior to installing the Part 75-compliant DAHS, if the following conditions are met:

- (A) A notification of initial certification testing should, to the extent practicable⁴, be provided at least 45 days prior to testing in accordance with §75.61 .
- (B) The source must conduct the RATA in accordance with all applicable requirements of Part 75, including but not limited to, use of the appropriate reference methods specified in §75.22, proper selection of the reference method traverse points, as described in section 6.5.6 of Appendix A, and performance of any stratification tests that may be required.
- (C) The RATA must demonstrate compliance with the Part 75 relative accuracy (RA) specification of 10.0 % (or, if applicable, with the alternative RA specification in Figure 2 of Part 75, Appendix B);

⁴ If, on the date of issuance of this guidance, the RATA has already been performed, failure to meet this notification requirement does not prevent certification of the CEMS. If the test has yet to be performed, but is scheduled to be done less than 45 days after the date of this guidance, advance test notification is required, but the 45 day requirement is waived.

(10/10/01)

- (D) If conditions (B) and (C) above are met, determine the “window” of data validation for the RATA, using Figure 2 in Appendix B of Part 75 as follows:
- (1) If the source will be a year-round reporter under the SIP Call or Section 126 trading program, then:
 - (i) If the RATA frequency specified by Figure 2 is semiannual, then the RATA is only valid for two QA operating quarters (as defined in § 72.2) following the quarter in which the test was completed; or
 - (ii) If the RATA frequency specified by Figure 2 is annual, then the RATA is valid for four QA operating quarters (as defined in § 72.2) following the quarter in which the test was completed; or
 - (2) If the source will only report emissions data during the ozone season, determine the window of data validation in accordance with §75.74(c);
- (E) If the RATA does not meet condition (C), above, (i.e., if it fails to meet the applicable Part 75 RA specification), or if its window of data validation as determined in (D), above, expires prior to the applicable monitor certification deadline, then the RATA may not be used as the certification RATA for the CEMS and the test must be repeated prior to the applicable certification deadline. Should this occur, EPA recommends that the source owner or operator make all necessary Part 75 upgrades, including installation of the Part 75 DAHS, before attempting the RATA again.
- (F) No modifications to the CEM system are permitted, except for routine maintenance and the DAHS upgrade, from the time of the RATA until after the monitoring system completes the other required certification tests. A statement affirming that this condition has been met should be included in the hardcopy certification application and in EDR record type 910 in the electronic portion of the certification application submittal.
- (G) The remaining required certification tests (i.e. 7-day calibration error test, linearity check, cycle time test, and DAHS formula verification) must be performed after the DAHS upgrade. If the CEMS is unable to pass all of the remaining certification tests, without upgrades or modifications to the system,

(10/10/01)

then the RATA that was performed prior to the DAHS upgrade may not be used to certify the CEMS. Should this occur, the RATA must be repeated, using the upgraded DAHS and the modified CEMS.

Each monitoring system will be considered to be provisionally certified as of the date and hour of successful completion of all required certification tests, including the DAHS verification. A complete certification application is required within 45 days of completing all certification tests, per § 75.20.

Except for sources using a RATA for initial certification that is performed prior to installation of the Part 75 DAHS (as described in (A) through (F), above), the owner or operator of a source that uses CEMS and reports NO_x mass emissions and heat input data on a year-round basis shall use the provisional certification date as the reference point from which to quality assure the data from the CEMS, according to Part 75, Appendix B, section 2.1 (for daily assessments), section 2.2 (for quarterly assessments) and section 2.3 (for semiannual and annual assessments). When using a RATA that is performed prior to the installation of the Part 75 DAHS, the quarter that the RATA was completed is to be used as the reference point from which to schedule the next RATA. All other quality assurance shall be scheduled based upon the provisional certification date. All of the required quality assurance tests shall be done at the frequency, load levels, etc. specified in Appendix B.

Unless otherwise specified in the applicable regulation or by the permitting authority, the owner or operator must begin reporting NO_x mass emissions and heat input data on the earlier of: the applicable monitoring certification deadline (i.e., May 1, 2002 or May 1, 2003); or the date of provisional certification.

For the purposes of implementing the initial CEMS missing data routines in § 75.31, the owner or operator of an affected unit for which emissions and heat input data are reported on an ozone season-only basis shall use the certification deadline (May 1, 2002 or May 1, 2003, as applicable), as the beginning point of quality-assured data, rather than the date of provisional certification (see § 75.74 (c)(7)).

Category 4

(Low Mass Emissions Units)

Section 75.19 of Part 75 provides an alternative to continuous emission monitoring for qualifying low mass emissions (LME) units. To qualify for LME status, a unit must burn only fuel oil and/or natural gas and must emit no more than 50 tons of NO_x if required to report annually and no more than 25 tons of NO_x during the ozone season if the source is an ozone season only reporter under § 75.74(c).

The LME methodology allows the owner or operator to use conservative default NO_x emission rates and heat input values to estimate NO_x mass emissions, in lieu of using continuous monitors. The default NO_x emission rates may either be generic values obtained from Table LM-2 in § 75.19 or may be determined by fuel-and-unit-specific testing using the 4-load test procedures in Appendix E of Part 75. To quantify unit heat input, the owner or operator may either report the maximum rated hourly heat input for each operating hour, or may use long-term fuel flow. The long-term fuel flow method consists of apportioning the total quarterly heat input to each unit operating hour, based on the hourly unit load. The total quarterly heat input is obtained from fuel billing records or by direct measurement using fuel flowmeters.

The current Part 75 regulation requires the owner or operator to submit a certification application for each LME unit, prior to using the methodology. The application must contain a complete electronic monitoring plan and sufficient evidence that the unit qualifies for LME status. The necessary evidence includes both actual emissions data from the previous 3 years (for year-round reporters) or from the previous 3 ozone seasons (for ozone season-only reporters) and calculated emissions for those same years or ozone seasons, using the LME methodology. If both the actual emissions data and the calculated emissions show that the unit emitted 50 tons or less of NO_x per year or 25 tons or less of NO_x per ozone season (as applicable), then the unit qualifies as an LME unit.

On June 13, 2001, EPA proposed substantive revisions to the LME provisions of Part 75 (see: Federal Register, Volume 66, No. 114, pp. 31986-31988 and 32005-32009). Many of the proposed changes to § 75.19 were intended to reduce the LME qualification requirements, in order to accommodate some of the smaller affected units under the NO_x SIP Call or Section 126 trading programs. The comment period on the proposed revisions ended on August 20, 2001. EPA is currently evaluating the comments received and intends to finalize any changes to § 75.19 early in 2002.

Table 1: NO_x Mass Monitoring Methodologies for the SIP Call and Section 126 Trading Programs

Unit Type	Case	NO_x Mass Methodology	Heat Input Methodology
Coal-Fired <u>or</u> Unit that burns fuel(s) other than oil and gas	Case 1	CEMS for NO _x emission rate and heat input rate	Stack flow monitor and diluent (O ₂ or CO ₂) monitor
	Case 2	NO _x concentration CEMS and stack flow monitor	Stack flow monitor and diluent (O ₂ or CO ₂) monitor
Gas or Oil-fired	Case 1	CEMS for NO _x emission rate and heat input rate	Stack flow monitor and diluent (O ₂ or CO ₂) monitor
	Case 2	CEMS for NO _x emission rate and Appendix D for heat input rate	Appendix D, hourly fuel flow measurement and fuel GCV
	Case 3	NO _x concentration CEMS and stack flow monitor	Stack flow monitor and diluent (O ₂ or CO ₂) monitor
	Case 4	NO _x concentration CEMS and stack flow monitor	Appendix D, hourly fuel flow measurement and fuel GCV
	Case 5	Appendix E for NO _x emission rate and Appendix D for heat input rate	Appendix D, hourly fuel flow measurement and fuel GCV
Low Mass Emissions (§ 75.19)	Case 1	Unit/fuel specific NO _x emission rate and unit heat input	Maximum rated hourly heat input for each operating hour
	Case 2	Unit/fuel specific NO _x emission rate and unit heat input	Apportioned hourly heat input from long term fuel flow measurements
	Case 3	Generic default NO _x emission rate and unit heat input	Maximum rated hourly heat input for each operating hour
	Case 4	Generic default NO _x emission rate and unit heat input	Apportioned hourly heat input from long term fuel flow measurements

QUALITY ASSURANCE REQUIREMENTS FOR YEAR-ROUND REPORTERS

If your unit is in the Acid Rain Program or in a NO_x Budget Trading program under the SIP Call or Section 126 (or both) and you are required (or elect to) report emissions data on a year-round basis, you must follow all applicable Acid Rain Program (Part 75) quality assurance procedures for your monitoring systems. These are found in Appendix B of Part 75 and are summarized in the following table.

Table 2: QA Requirements for Units Reporting on a Year-Round Basis

Frequency	Perform these QA tests...	On this equipment...	With these qualifications and exceptions....
Daily Assessments	Daily calibration tests	Each required CEMS	-----
	Daily interference checks	Flow monitor	-----
Quarterly Assessments	Quarterly linearity checks	Each required gas monitor	<ul style="list-style-type: none"> ● Required only in “QA operating quarters” (168 unit operating hours) and only on the range(s) used during the quarter, but no less than once a year ● 168 operating hour grace period available ● Not required if NO_x span 30 ppm
	Quarterly flow-to-load ratio tests	Flow monitor	<ul style="list-style-type: none"> ● Required only in “QA operating quarters” ● Complex configurations may be exempted by petition under § 75.66
	Quarterly leak checks	Differential pressure-type flow monitor	<ul style="list-style-type: none"> ● Required only in QA operating quarters ● 168 operating hour grace period available

**Table 2: QA Requirements for Units Reporting on a Year-Round Basis
(cont'd)**

Frequency	Perform these QA tests...	On this equipment...	With these qualifications and exceptions...
	<ul style="list-style-type: none"> ● Fuel flowmeter accuracy test every four "fuel flowmeter QA operating quarters" (fuel measured by flowmeter is combusted 168 unit operating hours) ● Visual inspections (if applicable) every 3 years 	<p align="center">Fuel flowmeter</p>	<p>An optional "fuel flow-to-load" or "gross heat rate" test (see Appendix D, section 2.1.7) may be used to extend the interval between flowmeter accuracy tests to up to 20 quarters</p>
<p>Semiannual and Annual Assessments</p>	<ul style="list-style-type: none"> ● Semiannual or annual relative accuracy test audit (RATA) ● Bias test (NO_x and flow systems, only) 	<ul style="list-style-type: none"> ● NO_x-diluent CEMS ● NO_x concentration CEMS ● Flow monitor ● Moisture monitor ● Diluent monitor used only for heat input rate 	<ul style="list-style-type: none"> ● Depending on % relative accuracy obtained in the previous test, the next RATA is required either "semiannually" (within 2 QA operating quarters) or "annually" (within 4 QA operating quarters), not to exceed 8 calendar quarters between successive tests ● 720 operating hour grace period available

QUALITY ASSURANCE REQUIREMENTS FOR OZONE SEASON-ONLY REPORTERS

If your unit is in a NO_x Budget Trading program under the SIP Call or Section 126 but is not an Acid Rain unit, and you report emissions data on an ozone season-only basis, then you must meet the specific quality assurance procedures under § 75.74 (c) in Subpart H of Part 75. These procedures require you to conduct some Subpart H quality assurance testing prior to each ozone season (before May 1) and to perform other QA testing during each ozone season (May 1 through September 30). These separate requirements are summarized in the following table.

For reporting purposes, you must submit all required QA tests performed outside the ozone season (i.e., October 1 of previous year to April 30 of current year) in the 2nd quarter report for the current year, unless the unit does not operate. If the 2nd quarter is a non-operating quarter, submit these QA test results with the 3rd quarter report.

Table 3: QA Requirements for Units Reporting on an Ozone Season Basis

Perform these QA tests...	On this equipment...	At these times...	With these qualifications and exceptions...
Daily calibrations (outside ozone season)	Each required CEMS	From the date and hour of any RATA or linearity check passed in the "pre-ozone season period" (i.e., from 10/1 of previous year through 4/30 of current year)	-----
Daily calibrations (inside ozone season)	Each required CEMS	Throughout the ozone season (5/1 through 9/30)	-----
Daily interference checks (outside ozone season)	Flow monitor	From the date and hour of any flow RATA passed in the pre-ozone season period	-----
Daily interference checks (inside ozone season)	Flow monitor	Throughout the ozone season	-----

Table 3: QA Requirements for Units Reporting on an Ozone Season Basis (cont'd)

Perform these QA tests...	On this equipment...	At these times...	With these qualifications and exceptions...
Linearity check (outside ozone season)	Each required gas monitor	During the pre-ozone season period from 10/1 of previous year through 4/30 of current year	If the test is not completed by 4/30, a 168 operating hour grace period is allowed if a linearity check was passed in the previous year and if the unit operated for < 336 hours in the last ozone season
Linearity check (inside ozone season)	Each required gas monitor	In 2 nd and 3 rd quarters	<ul style="list-style-type: none"> ● The linearity check is required only in QA operating quarters ● No grace periods allowed for these checks
<ul style="list-style-type: none"> ● RATA ● Bias test (NO_x and flow systems, only) (outside ozone season)	<ul style="list-style-type: none"> ● NO_x-diluent CEMS ● NO_x concentration CEMS ● Flow monitor ● Moisture monitor ● Diluent monitor used only for heat input rate 	Pre-ozone season period from 10/1 of previous year through 4/30 of current year	<ul style="list-style-type: none"> ● Not required if RATA from previous ozone season is able to validate data for part or all of current ozone season ● If the results of this RATA qualify for an annual RATA frequency, you may use this RATA to validate data for entire current ozone season ● If the results of this RATA require a semiannual frequency, you may use this RATA to validate data for entire current ozone season (if test was performed in the current year) or only through 6/30 of current year (if test was performed in the previous year) ● If the RATA is not completed by 4/30, a 720 operating hour grace period is allowed if a RATA was passed in the previous year and if the unit operated for < 336 hours in the last ozone season ● If the RATA is not completed by 4/30 and you do not qualify for a grace period, you may use the conditional data validation procedures of § 75.20 (b)(3) in the current ozone season, subject to certain restrictions.

Table 3: QA Requirements for Units Reporting on an Ozone Season Basis (cont'd)

Perform these QA tests...	On this equipment...	At these times...	With these qualifications and exceptions...
<ul style="list-style-type: none"> ● RATA ● Bias test (NO_x and flow systems, only) <p>(inside ozone season)</p>	<ul style="list-style-type: none"> ● NO_x-diluent CEMS ● NO_x concentration CEMS ● Flow monitor ● Moisture monitor ● Diluent monitor used only for heat input rate 	<p>Inside the ozone season i.e., in 2nd or 3rd quarter</p>	<ul style="list-style-type: none"> ● Required only when a pre-ozone season RATA or a RATA performed during the last ozone season is not able to quality assure data for the entire current ozone season ● You may opt to perform all required RATAs in the 2nd or 3rd quarter instead of performing RATAs outside the ozone season ● You may use an ozone season RATA to validate data for part or all of the next ozone season, if the RATA results qualify for an annual frequency, and if you perform daily calibrations (and interference checks if applicable) from 10/1 of current year through 4/30 of the next year
<p>Flow-to-load ratio test</p>	<p>Flow monitor</p>	<p>In 2nd and 3rd quarters</p>	<ul style="list-style-type: none"> ● Required only in “QA operating quarters” ● Complex configurations may be exempted by petition under § 75.66
<p>Leak check</p>	<p>DP-type flow monitor</p>	<p>In 2nd and 3rd quarters</p>	<p>Required only in "QA operating quarters" (168 unit operating hours)</p>
<p>Fuel flowmeter accuracy tests</p>	<p>Fuel flowmeter</p>	<p>Every four "fuel flowmeter QA operating quarters" (fuel measured by flowmeter is combusted 168 unit operating hours)</p>	<ul style="list-style-type: none"> ● Include calendar quarters outside the ozone season when determining the accuracy test deadline ● For orifice, nozzle and venturi-type flowmeters, visual inspections are also required every 3 years ● An optional “fuel flow-to-load” or “gross heat rate” test (see Appendix D, section 2.1.7) may be performed in the 2nd and 3rd quarters to extend the interval between flowmeter accuracy tests to up to 20 quarters