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**GUIDANCE FOR IMPLEMENTATION OF EMISSION MONITORING
REQUIREMENTS FOR THE NO_x BUDGET PROGRAM**

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GUIDANCE FOR IMPLEMENTATION OF EMISSION MONITORING REQUIREMENTS FOR THE NO_x BUDGET PROGRAM

I. Introduction

On September 27, 1994 the Ozone Transport Commission (OTC) adopted a Memorandum of Understanding (MOU) committing the signatory States to the development and proposal of a region-wide nitrogen oxides (NO_x) emission reduction in 1999 and 2003¹. The OTC MOU requires reductions in ozone season NO_x emissions from utility and large industrial combustion facilities, in order to further the effort to achieve the health-based National Ambient Air Quality Standard (NAAQS) for ozone.

In January, 1996 the OTC released the NO_x Budget Model Rule to provide State regulatory agencies a common framework for the promulgation of State regulations. The model rule reflects a consensus among the States and U.S.EPA on key regulatory elements of a NO_x Budget Program that implements the OTC MOU. Sections 11 - 13 of the Model Rule outline emissions monitoring, recordkeeping and reporting requirements for NO_x budget sources. Owners and operators of a NO_x budget source must monitor and report emissions for each affected unit at the source.

This document provides additional technical guidance and clarification on the emissions monitoring, data collection and reporting sections of the Model Rule. It includes a more detailed description of each monitoring methodology, initial certification requirements, ongoing quality assurance and quality control requirements, and addresses the basic recordkeeping and reporting requirements for each monitoring methodology. Detailed instructions on the procedures for monitoring plan submissions and approvals and the reporting of emissions data are available in the *NO_x Budget Program Monitoring Certification and Reporting Instructions* and *Electronic Data Reporting Version 2.0* (EDR V2.0).

II. General Description of NO_x and Heat Input Measurement Options

A. Monitoring for Part 75 Sources

Owners or operators of units subject to the provisions of Part 75 shall determine NO_x emission rate and heat input using the same monitoring methodologies used to comply with 40 CFR Part 75. In addition, they must meet the following:

- Additional monitoring plan requirements (for example, to support additional NO_x mass emission formulas);

¹ "Memorandum of Understanding Among the States of the Ozone Transport Commission on Development of a Regional Strategy Concerning the Control of Stationary Source Nitrogen Oxide Emissions", signed September 27, 1994.

- Additional requirements to calculate and report hourly NO_x mass emissions in pounds per hour and NO_x mass emissions in tons per ozone season;
- Additional monitoring and reporting requirements for units with common or multiple stacks; and
- For units with add-on controls, definition of operating parameters and associated ranges to indicate proper operation of control equipment.

B. Monitoring for Non-Part 75 Sources

(1) NO_x Emission Rate Options

- **CEMS Requirements.** If a non-Part 75 NO_x unit
 - (a) Has a maximum rated heat input capacity of 250 mmBtu/hr or greater;
 - (b) Combusts any solid fuel; or
 - (c) If the owner or operator of the non-Part 75 unit is required to or has installed a NO_x CEMS for the purposes of meeting either the requirements of Part 60 or any other State or federal requirement, the owner or operator must install and operate a NO_x CEMS to measure, record and report NO_x emissions for the NO_x Budget Program.

Owners and operators not subject to a NO_x CEMS requirement may also elect to install and operate NO_x CEMS for any unit.

Owners or operators of NO_x CEMS must meet the initial certification requirements in Section VI, the quality assurance requirements in Section VII, and the reporting requirements in Section IX of this document.

- **Appendix E NO_x Correlation Methodology.** The owner or operator of a unit combusting only oil and/or gas who is not required to install and operate NO_x CEMS may develop a correlation curve between the NO_x mass emission rate of the unit and the heat input of the unit as defined in Appendix E of Part 75. The owner or operator shall use the hourly heat input of the unit to determine NO_x mass emissions based on a heat input/NO_x correlation curve. The owner or operator must meet all 40 CFR Part 75 quality assurance and data reporting requirements associated with Appendix E.
- **Unit-specific Default NO_x Rate.** The owner or operator of a unit not required to use CEMS may develop and use a unit-specific default NO_x emission rate factor. This rate is determined by selecting the highest reported rate during four-load level reference method testing. This rate is used with hourly heat input to calculate NO_x mass emissions.

- **General Default NO_x Rate.** The owner or operator of a unit not required to use CEMS may use the following generic default emission rates based on fuel combusted and source category. This rate is used with hourly heat input to calculate NO_x mass emissions.

TABLE 1: DEFAULT NO_x RATES BY UNIT CATEGORY AND FUEL TYPE

| Unit/Fuel Category | Default Rate |
|--------------------|---------------|
| Gas-fired Turbines | 0.7 lbs/mmBtu |
| Oil-fired Turbines | 1.2 lbs/mmBtu |
| Boilers | 2.0 lbs/mmBtu |

(2) Heat Input Options

- **Flow and Diluent CEMS.** The owner or operator of a NO_x budget unit using a NO_x CEMS may elect to measure stack flow and diluent concentration and use the procedures in 40 CFR Part 75 Appendix F to determine hourly heat input. The owner or operator must meet all of the applicable requirements of Part 75, including the monitoring plan, initial certification testing requirements, ongoing QA/QC requirements and Part 75 data reporting requirements.
- **Fuel Flow Monitoring.** The owner or operator of a NO_x budget unit combusting only oil and/or gas may determine hourly heat input using fuel sampling and fuel flow meter systems certified under 40 CFR Part 75 Appendix D, or as defined in Section VI.
- **Alternative Heat Input Methodology.** The owner or operator of a NO_x budget unit may petition the State regulatory agency to use an alternative method for determining heat input. This petition must include documentation that the methodology meets the requirements specified in Section IV.
- **Long-Term Fuel Flow Rate Determinations.** The owner or operator of a NO_x budget unit combusting only oil and/or gas for which the owner or operator has elected to use a default NO_x emission rate, may determine heat input for a single fuel source based on fuel feed rate measurements for a specified period and fuel sampling and analysis.
- **Maximum Heat Input Determination.** The owner or operator of a NO_x budget unit may petition the State regulatory agency to use a unit maximum potential heat rate based on the higher of the maximum manufacturer's rated capacity or the highest observed heat rate.

TABLE 2: SUMMARY OF NO_x AND HEAT INPUT OPTIONS

| NO _x Monitoring Options | Heat Input Monitoring Options | Who Can Use? |
|--|--|---|
| NO _x CEMS or Part 75 Alternative Monitoring Systems | Stack Flow Meters and F factors | All units |
| | Hourly Fuel Flow Monitoring | Oil/gas units |
| | Hourly Alternative Heat Input Monitoring (boiler efficiency, hourly fuel usage, other) | All units through petition process |
| | Unit-Specific Maximum | All units through petition process |
| NO _x /Heat Input Correlation (Part 75 Appendix E) | Hourly Fuel Flow Monitoring | Oil/gas units |
| | Hourly Alternative Heat Input Monitoring (boiler efficiency, hourly fuel usage, other) | All non-solid fuel units through petition process |
| Default Emission Factor (Either Unit-Specific or Based on Unit Category) | Hourly Fuel Flow Monitoring | Oil/gas units |
| | Hourly Alternative Heat Input Monitoring (boiler efficiency, fuel usage, other) | All non-solid fuel units through petition process |
| | Long Term Fuel Flow Monitoring or Fuel Measurements | Oil/gas units |
| | Unit-Specific Maximum | All non-solid fuel units through petition process |

III. Specific Requirements for NO_x Monitoring

A. Common and Multiple Stack Requirements for CEMS Sources

- (1) When all the units that share a common stack are affected by the NO_x Budget Program, the owner or operator must:
 - Monitor NO_x emission rate and heat input at the common stack level;
 - Monitor NO_x emission rate and heat input at the unit level for all units in the common stack; or
 - Monitor NO_x emission rate at the common stack level and heat input at the unit level.
- (2) When any units that share a common stack are not affected by the NO_x Budget Program, the owner or operator must:
 - Monitor only the affected units using allowable methodologies;
 - Petition the State regulatory agency for approval of a methodology to subtract emissions produced by the non-affected units. Any such methodology must be verifiable by using reported quality-assured data

and may not systematically overestimate data from the non-affected unit(s); or

- (3) When a unit emits to multiple stacks or ducts and uses CEMS, the owner or operator must meet the following requirements:
- If heat input is measured in each multiple stack or duct using Part 75 CEMS methodology, the owner or operator must measure the NO_x emission rate at each of the multiple stacks or ducts and calculate and report hourly NO_x mass emissions for each stack or duct.
 - If heat input is determined at the unit level, the owner or operator may use an hourly NO_x emission rate from CEMS in either stack to calculate unit hourly NO_x mass emissions, if 1) there are no add-on NO_x controls at the unit; 2) the unit is not capable of emitting solely through an unmonitored stack (i.e., has no dampers); and 3) the NO_x emission rate in either stack or duct is representative of the NO_x emission rate in each stack. The rate is not considered representative if the measurements vary by more than [10]%.
 - If the owner or operator determines heat input at the unit level and the unit has a main stack and bypass stack which are never used simultaneously, the owner or operator may install NO_x CEMS in each stack and use the unit heat input and NO_x emission rate for the stack in use to determine hourly NO_x mass emissions.
 - If the owner or operator measures heat input at the unit level and the unit has a main stack and bypass stack which are never used simultaneously, the owner or operator may install NO_x CEMS in the main stack only and report maximum NO_x emission rate for any hour in which the bypass stack is in use.

B. Appendix E Requirements

(1) Units with Add-on Controls

For any unit using add-on emission controls and Appendix E methodology, the owner or operator must identify, establish operational ranges and record control equipment operating parameters during testing and unit operation. The parameters should indicate proper operation of those controls. For any hour of unit operation in which add-on emission controls are not operating within a range specified for those parameters the owner or operator must apply missing data procedures as specified in Section IX.

The parameters should include, but are not limited to, the following:

TABLE 3: NO_x CONTROL EQUIPMENT PARAMETERS *

| Type of Controls | Parameter |
|--|---|
| Flue Gas Recirculation | FGR rate |
| Selective Catalytic Reduction (SCR) | Ammonia injection rate |
| | Temperature at the inlet gas stream to SCR |
| Selective Non-catalytic Reduction (SNCR) | Ammonia or urea injection rate |
| | Temperature at the inlet gas stream to the SNCR |
| Non-Selective Catalytic Reduction (NSCR) | Natural gas (or other HC) injection rate |
| Water/steam injection | Water or steam injection rate |

* Based on RECLAIM requirements.

(2) Units with Configuration Problems

An owner or operator of a NO_x budget unit that cannot comply with the testing procedures specified in 40 CFR Part 75, Appendix E because of the physical configuration of the unit and associated stack and ductwork may petition the State regulatory agency for a modification to the testing procedures. The owner or operator must obtain State agency approval before proceeding with any tests.

(3) Testing for Identical Turbines

An owner or operator of identical non-Part 75 turbines (same size, manufacturer, model, and history of modifications) may apply to the State regulatory agency to perform representative testing at a limited number of turbines. Turbines in an identical group may be located in different jurisdictions. If the turbines are located in different State or agency jurisdictions, all responsible agencies must receive and approve the application before testing begins.

An owner or operator must perform the following number of tests and create average correlation curves which will be applied to all identical turbines in the group, as follows:

TABLE 4: TURBINE/TEST NUMBER REQUIREMENTS

| # of Turbines | # of Tests |
|---------------|---------------|
| 3 | 1 |
| 4 to 6 | 2 |
| 7 to 10 | 3 |
| For each 10 | Multiple of 3 |

In order to use representative testing, owners or operators must demonstrate that the NO_x emission rate at each tested unit does not vary by more than 10% from the average of the NO_x emission rate at the corresponding load of any other units tested.

A State regulatory agency may disallow the use of this procedure or may require testing at additional units for any reason, including but not limited to:

- Differences in the way the units are operated and or maintained.
- Differences in geographic factors at unit locations, such as variability in average ambient temperature.
- Differences in applicable emission limits.

C. Unit-Specific Default Emission Rate Determinations

An owner or operator of a NO_x budget unit may perform testing as specified in Section VI to determine a unit-specific maximum potential NO_x emission rate for each type of fuel combusted. If a unit uses any add-on emission controls, the owner or operator must specify operating parameter ranges indicating the proper operation of the control equipment in the monitoring plan and must monitor these parameters during all hours of unit operation. For any hour in which the parameters fall outside of these ranges, the owner or operator must use the appropriate generic default NO_x emission rate for the unit category and fuel.

IV. Specific Requirements for Heat Input

A. Common Pipe Requirements for Oil and Gas Units Using Fuel Flow Meters

Units using Part 75 Appendix D heat input methodology to measure heat input may not measure fuel flow at a common pipe serving multiple units, unless all of those units are determining their NO_x emission rate in lbs/mmBtu using the same default NO_x emission rate. If the units determine NO_x emission rate using any other methodology, fuel flow must be monitored on a unit-by-unit basis.

B. Calculating Heat Input for Units Using Long-term Fuel Measurements

(1) The owner or operator of an oil and/or gas-fired unit that does not have acceptable fuel flowmeters installed and uses a default NO_x emission rate may determine heat input on a non-hourly periodic basis and report hourly heat input as follows:

(a) If the unit combusts pipeline natural gas, the owner or operator may determine total heat input for the period by using Formula xx1:

$$HI_g = Q \times \frac{GCV}{10e6}$$

where:

HI_g = Total monthly heat input for gas
Q = Quantity of fuel burned based on monthly purchase records
GCV = Heating value of fuel may also be based on monthly purchase records

(b) If the unit combusts oil, the owner or operator may determine total heat input for the period by using formula D-3 from Appendix D Part 75 to calculate mass of oil:

$$M_{oil} = V_{oil} \times D_{oil}$$

where:

M_{oil} = Mass of oil combusted in the period
V_{oil} = Volume of oil combusted in the period (gals) determined by measuring the depth of the fuel in the storage container relative to the tank volume. At a minimum, the depth of the fuel in the storage container must be measured before and after every fuel delivery and before the first time the unit is used in the ozone season and after the unit is used for the last time in the ozone season.
D_{oil} = Density of oil as determined from samples of the last three deliveries, including deliveries prior to the ozone season.

And then calculating the heat input from oil using Formula xx2:

$$HI_o = M_{oil} \times \frac{GCV}{10e6}$$

where:

| | | |
|-----------|---|--|
| HI_o | = | Total heat input for oil for the period |
| M_{oil} | = | Mass of oil combusted from formula D-3 |
| GCV | = | Highest heating value of oil as sampled after the last three deliveries, including deliveries prior to the ozone season. |

- (c) The owner or operator must apportion the total heat input for the period based on megawatt or steam load as follows:

$$\text{Hourly fuel usage} = \text{Total fuel} \times \frac{\text{Hourly load}}{\text{Total load}}$$

- (2) An owner or operator of any non-CEMS unit which combusts a fuel other than oil or gas (including solid fuels) may petition the State regulatory agency to use an alternative heat input methodology based on long-term fuel measurements.

C. Requirements for Heat Input Methodology Petitions

An owner or operator that petitions for the use of an alternative heat input methodology must provide in the petition the following information. An owner or operator must receive approval of the petition from the State agency before using the proposed methodology for measuring or reporting emissions.

- (1) A description of the alternative methodology, including schematics or other diagrams, as appropriate;
- (2) A description of equipment, sampling techniques or monitoring technology used as part of the methodology;
- (3) A test protocol describing test procedures, schedule and proposed criteria as certification requirements comparable to Section VI;
- (4) An explanation of the technical basis for test procedures (such as fuel analysis procedures) used as part of the methodology;
- (5) A description of ongoing QA/QC activities comparable to the requirements in Section VII;
- (6) A detailed description and example of the reporting methodology for the alternative heat input methodology;

- (7) A detailed description of the missing data procedures which will be used to provide data during periods in which any of the components needed for the approved methodology are unable to provide data;
- (8) If the alternative methodology includes fuel sampling and fuel usage data, the owner or operator must provide a detailed description of the sampling frequency and approach;

Specific requirements include:

- (a) Samples must be taken from each fuel feed stream.
 - (b) A minimum of two subincrement point samples must be collected from each point of sample acquisition for each discrete hourly time period the process is operating.
 - (c) Sample collection must be by means which do not allow for operator discretion with respect to the portions of samples retained or rejected.
 - (d) An hourly increment point sample must consist of all subincrement point samples collected at a particular sampling acquisition point during a discrete hourly time period and must consist of all hourly increment point samples for a particular combustion unit during a particular discrete hourly time period.
 - (e) A daily composite unit sample must consist of all subincrement point samples collected for a particular combustion unit during a discrete daily time period.
 - (f) Subincrement point samples must be collected in proportion to the weight of fuel passing the point of sample acquisition during the time period represented by the samples. The factor of proportionality (pounds of sample per pound of fuel burned) must be as nearly identical as possible for all samples acquisition points within a particular system.
 - (g) A representative daily laboratory sample must be prepared from each daily sample according to methods approved by the state.
 - (h) Each daily laboratory sample must be analyzed to determine BTU/pound by methods approved by the state.
- (9) If the alternative heat input methodology is based on boiler efficiency testing the owner or operator must submit the following information:
 - (a) The results of boiler efficiency tests performed within the previous five years and a certification that the boiler has undergone no

changes that will have a major effect on efficiency since the testing date.

- (b) A description of the boiler efficiency tests and documentation that the boiler efficiency testing was performed at a minimum of three evenly spaced loads representative of normal operation; or, if the unit operates within a very limited load range except for startup, shutdown and maintenance events, documentation of this operational pattern and a request to accept testing at less than three load levels.
- (c) A proposed schedule for periodic retesting of boiler efficiency consistent with QA/QC requirements found in Section VII.

V. Monitoring Plan Requirements

A. General Requirements

The owner or operator of a NO_x budget unit shall maintain a monitoring plan which documents the methodologies used to measure and report emissions and heat input data under the NO_x Budget Program. For any unit which is also subject to the requirements of the Acid Rain Program, the monitoring plan maintained under Part 75 meets some, but not all, of the requirements for the NO_x Budget Program. A description of additional monitoring plan requirements for Acid Rain sources is provided in Section V.C.

B. Contents of the Monitoring Plan

This monitoring plan shall include the following information:

(1) Unit Definition Information

- Facility and Unit Identifiers, Including ORIS Code, Unit IDs
- EPA Facility ID
- AIRS Point ID
- State Facility and Unit IDs
- Code for Primary State Regulatory Agency (to be assigned)
- Name of Primary State Regulatory Agency
- Unit Short Name
- Boiler Type
- Peaking Unit Indicator
- Primary Fuel
- Secondary Fuel(s)
- NSPS Applicability and Subpart
- Identification of State CEMS Requirements (Permit #, Regulatory Cite)
- NO_x Controls
- Date on Which NO_x Controls Were Installed and Optimized
- NO_x Monitoring Approach (Additional Codes for Site-specific Default, Category Default)

- HI Monitoring Approach: (75 CEMS, Part 75 AMS, 75 App D, NO_x Budget AMS, Boiler Efficiency Testing, Default Maximum, Periodic Fuel Measurements, etc)
- Unit/Process Name
- Location or Zone Identification
- Source Category (for Electric Utility, Cogen, Pulp and Paper, Petroleum Refinery, Process Boiler, etc.)
- Source Category Description
- OTC Class: Existing, New, Opt-in, etc.
- Effective Participation/Compliance Date
- Capacity (Nameplate for Utilities or Steam for Non-utility Units)
- Maximum Load Value
- On-line date (for New Units Particularly)

(2) Unit/Stack/Pipe Identification

For any unit measuring emissions at a common stack or measuring fuel flow for a common fuel source, the owner or operator must identify the units and assign a stack or common pipe ID. For any single unit emitting through more than one stack, including bypass stacks, the owner or operator must identify each emission point and assign a multiple stack ID to each point.

All stack and pipe IDs must be no more than six alpha-numeric characters and must contain the following required prefixes:

- CS: for all common stacks
- CP: for all common pipes or common fuel sources
- MS: for all multiple ducts
- XS: for all units with complex emission points including any unit emitting and measuring emissions through a main single unit stack and bypass stack or proposing to calculate unit emissions based on monitoring configuration involving subtraction. It is not necessary to define an XS stack for a main stack if data is reported during bypass hours as the maximum NO_x emission rate.

(3) Unit Configuration and Monitoring Location Information

The owner or operator must maintain in the monitoring plan the following unit and monitoring location information:

- Facility Description/Location. A general description of the facility and location, including clear identification of each affected unit within the facility.
- For each affected unit, specific information on monitoring and reporting, including:

- Schematics, including identification of all monitoring systems, control equipment, fuel storage locations, fuel flow, sampling points, or other parametric monitoring devices.
- Information on the location of CEMS demonstrating conformance with 40 CFR Part 75 Appendix A, Section 1.
- Description and appropriate documentation for the use of any non-CEMS monitoring approach as specified in Sections III and IV.
- Data flow diagrams, including a clear differentiation of automated data collection and manual data entry.
- Description of record types and specific data elements to be used to report emissions and heat input, as required in this guidance and EDR Version 2.0.
- Description of the missing data procedures to be used, including a brief description of the proposed DAHS test protocol used for certification, consistent with the requirements in Section IX.

(4) **NO_x Control Equipment Parameter Information**

For each unit which uses add-on NO_x controls and for which CEMS, Appendix E procedures or unit-specific default emission rates are used to determine NO_x mass emissions, the owner or operator must identify in the monitoring plan:

- (a) Operational parameters associated with the unit and the control device to serve as indicators of effective operation;
- (b) The appropriate ranges of operation;
- (c) Method of data collection;
- (d) The time periods to which those parameters and ranges are applicable or effective;
- (e) A brief description of the basis on which parameters and appropriate ranges have been determined;
- (f) Simultaneous CEMS or reference method monitoring data and parametric control equipment data collected during normal operation of the control equipment;
- (g) For units using parametric data to certify normal operation for standard CEMS missing data period, the owner or operator must retain on-site simultaneous CEMS emission data as well as

parametric control equipment data for 720 hours of normal operation; and

- (h) For units using parametric data as part of Appendix E or unit-specific default rate testing, the owner or operator must retain on-site all parametric control equipment data obtained during the testing period.

(5) **Monitoring System and Component Information**

Owners and operators of affected units must identify all monitoring systems and any associated components used to monitor, estimate or report emissions and heat input. Each system and component at a unit or stack must be defined using a unique three-digit system ID. For each system the owner and operator must identify the parameter monitored, assign a three-digit component ID and indicate whether it is a primary or backup system. For each component the owner or operator must identify the sample acquisition method or measurement approach, the type of component, and the component manufacturer, model and serial number. Each system must include, as components, the software component(s) used to collect, store, calculate and report emissions data.

The following types of systems may be included in plans for the NO_x Budget Program:

- NO_x CEMS System: To determine NO_x emission rate, comprised of a NO_x concentration monitor, diluent monitor and data acquisition system;
- NO_x Part 75 Alternative Monitoring System (AMS): Comprised of components defined in approved Subpart E AMS petition.
- Appendix E NO_x System: Comprised of DAHS software to apply NO_x/heat input correlation curve based on hourly heat input.
- NO_x Default Rate System: Comprised of DAHS software.
- Gas System: To calculate heat input using hourly or periodic gas flow comprised of, at a minimum, a gas fuel flow meter, and DAHS software.
- OILV System: To record hourly volumetric oil flow rate, comprised of, at a minimum, an oil fuel flow meter and DAHS software.
- OILM System: To calculate heat input using hourly mass of oil, comprised of, at a minimum, an oil fuel flow meter and DAHS software.
- Heat Input System: To calculate heat input based on approved alternative heat input methodologies, boiler efficiency testing, periodic solid fuel measurements, comprised of DAHS software and any other components required in an approved petition.

(6) Table C Formula Requirements

The owner or operator of a NO_x budget unit must include, in the monitoring plan, formulas used to calculate NO_x emission rate, heat input and NO_x mass emissions, as appropriate to the monitoring methodologies selected and/or approved for use in the program. These formulas include formulas for NO_x lb/hr using hourly NO_x rate, NO_x emission rate formulas for non-Part 75 Sources, heat input formulas, formulas for calculating NO_x emission rate for multiple stacks or ducts, and formulas reflecting NO_x/heat input load correlation based on Appendix E testing.

(7) Span, MPC, MEC, MPF and Default Information

The owner or operator of a NO_x budget unit using CEMS must maintain a record of all span and range values, maximum potential concentration, maximum expected concentration, maximum potential flow values, and documentation of the basis for determining these values. The owner or operator of a NO_x budget unit using default emission rates or maximum heat input values must maintain a record of these values and documentation of the basis for determining these values. The owner or operator of a NO_x budget unit using Part 75 missing data procedures requiring the use of maximum NO_x emission rate must maintain a record of this value and documentation of the basis for the value.

(8) System Certification Status Information

For each system defined for use in the NO_x Budget Program (including NO_x and flow systems previously certified under the Acid Rain Program) the owner or operator must maintain for a minimum of five years current and historic information on the certification and recertification status of all systems.

(9) Fuel Flow Meter Information

The owner or operator of a NO_x budget unit using fuel flowmeters to calculate heat input must maintain a record of initial and ongoing calibration methods and maximum potential flowrate for all fuel flow systems.

C. Summary of Monitoring Plan Requirements for Part 75 Sources

Owners and operators of Part 75 sources in the NO_x Budget Program must maintain a monitoring plan under Part 75. The NO_x Budget Program imposes additional requirements, including but not limited to:

- Additional unit definition information
- Additional formulas
- Changes to allow accurate calculation of NO_x mass emissions for common pipes and multiple duct monitoring
- Control equipment parameters for units with add-on controls

D. Monitoring Plan Submission Requirements

(1) Submission Requirements for Non-Part 75 Sources

The designated representative (DR) for an existing non-Part 75 NO_x budget unit must submit one copy of a complete monitoring plan to the appropriate State regulatory agency and one copy to the Acid Rain Division, U.S. EPA by _____. For new budget units the DR must submit monitoring plans three months prior to the projected initial participation date.

The DR of an existing unit in extended shutdown on the initial participation day must notify the State regulatory agency about the shut down condition and the projected unit start-up date by the monitoring plan submission date. The DR must submit complete monitoring plans 90 calendar days prior to the projected start-up date of the deferred unit. If start-up is delayed, the DR may renotify the State agency and provide a revised projected start-up date.

This monitoring plan submission must contain the following:

- Electronic Submissions of Monitoring Plan Forms Tables A, B, C, and D per ***EDR Version 2.0***

For all monitoring plan submissions, the electronic submissions of Tables A, B, C and D constitute the "official" copy of this data and will be relied upon by the Acid Rain Division and the State regulatory agency as the basis for future submissions relating to certification and quality assurance and emissions reporting. Inconsistencies in a hardcopy submission will be ignored; errors in formatting, obvious typographical errors, or omissions may result in a determination that the monitoring plan is incomplete and must be resubmitted.

For information on the formats, organization and file naming conventions of EDR monitoring plan data, consult the ***Acid Rain CEMS Program Submission Instructions*** (May 1995), the ***NO_x Budget Program Monitoring Certification and Reporting Instructions*** (draft August 1996) and ***EDR Version 2.0***.

- Hardcopy Monitoring Plan Submission
 - Description and appropriate documentation specified in Section V.B.(3), (4) and (7) including documentation supporting the use of any non-CEMS monitoring approach as specified in Sections II, III and IV.
 - For monitoring approaches which do not require specific certification tests (or for which certification test data or its equivalent is already available), submit this information with the monitoring plan, in lieu of a separate certification application. Clearly indicate that all required certification information is included in the submission.
 - Copies of Special Petitions and Related Approvals

-- Certification Statements

(2) Submission Requirements for Part 75 Sources

The designated representative for all Part 75 NO_x budget units must submit by _____:

- (a) An electronic monitoring plan containing NO_x Budget Program monitoring plan changes and additions to the Acid Rain Division for all units submitting a quarterly report for third quarter 1997. For new units under Part 75 after January 1, 1998, the DR must include NO_x Budget Program information with the Acid Rain Program monitoring plan, no later than three months prior to the projected participation date.
- (b) A copy of the complete hardcopy Acid Rain and NO_x Budget Program monitoring plan to the primary State regulatory agency.

E. Approvals of Monitoring Plans and Petitions

(1) Approvals for Non-Part 75 Monitoring Methodologies Petitions

An owner or operator who petitions the State regulatory agency to use an alternative monitoring methodology must submit the petition a minimum of ___ months prior to the monitoring plan submission date. Although the petition may include many elements of information required for a monitoring plan submission, it does not constitute a monitoring plan submission. The owner or operator must receive approval from the State regulatory agency and the Acid Rain Division prior to the submission of the monitoring plan or reporting of data based on the methodology.

(2) Approvals for Non-Part 75 Program Monitoring Plans

[To be completed]

(3) Approvals for Part 75 Monitoring Plans

[To be completed]

F. Changes to the Monitoring Plan

When changes to the monitoring plan are the result of normal changes in equipment or operational changes and do not affect the fundamental monitoring approach, the designated representative should convey these changes to ARD and other regulatory agencies in the electronic monitoring plan data submitted in a periodic report. Monitoring plan changes requiring only EDR submissions include:

- Like-kind equipment component replacements
- DAHS version upgrades

- Span changes for CEMS
- Maximums increased due to operational changes or exceedances of current maximums

In addition, these changes may require recertification testing, as defined in Section VIII.

However, if an owner or operator proposes to change the basic monitoring approach (for example, to switch from the use of a unit type default value to a unit-specific default value or Appendix D approach) the DR must submit a revised monitoring plan at least 60 days prior to the use of the proposed approach. Sources are encouraged to time the use of a new monitoring methodology to coincide at the beginning of the ozone season and to submit and certify during the off-season.

VI. Certification Requirements and Procedures for NO_x Budget Program

A. Pretest Notification Requirements

The designated representative must notify in writing the State regulatory agency ___ days prior to the date of any scheduled certification, quality assurance or recertification test involving relative accuracy testing, Appendix E testing, unit-specific default emission rate testing or other tests approved as part of an alternative monitoring methodology for which a test notification requirement is specified as a condition of approval.

B. Testing Requirements for Part 75 Sources

If an owner or operator has certified NO_x monitoring systems (either a NO_x CEMS, NO_x AMS or Appendix E system without add-on controls) and systems required for hourly heat input calculations (either a flow and diluent CEMS, Part 75 alternative monitoring systems or Appendix D systems) under Part 75, it is not necessary to reperform initial certification tests to ensure the accuracy of these components under the NO_x Budget Program. However, the owner or operator must perform and submit formula verifications to demonstrate that the DAHS accurately calculates NO_x pounds based on hourly heat input (mmBtu/hr) and NO_x emission rate (lbs/mmBtu). If the owner or operator of a Part 75 budget unit must install and operate additional NO_x flow systems or fuel flow systems because of stack and unit configurations, the owner or operator must certify these monitoring systems under Part 75.

C. Initial Certification and Performance Requirements for Non-Part 75 Sources

The owner or operator must perform and pass initial certification tests appropriate to the monitoring methodology used at each unit.

(1) Non-Part 75 NO_x CEMS Initial Certification Requirements

For units using a NO_x CEMS, the owner or operator must perform successfully the following tests:

- (a) A 7-day calibration error test in accordance with the requirements of 40 CFR Part 75, Appendix B, Section 6.3.
- (b) A linearity check in accordance with the requirements of 40 CFR Part 75, Appendix B, Section 6.2.
- (c) A cycle time test in accordance with 40 CFR Part 75, Appendix B, Section 6.4.
- (d) A relative accuracy test in accordance with the procedures in 40 CFR Part 75, Appendix B, Section 6.5.
 - 1. The relative accuracy of a non-Part 75 NO_x CEMS shall not exceed 20.0%.
 - 2. A relative accuracy greater than 10.0% and less than or equal to 20.0% shall be deemed acceptable performance for a non-Part 75 CEMS. However, the owner or operator of a NO_x CEMS with a relative accuracy between 10.0% and 20.0% shall adjust each hour of measured data by applying a factor of 10%, as follows:

$$\text{Adjusted NO}_x \text{ Emission Rate} = \text{NO}_x \text{ Emissions Rate} * 1.1$$

- (e) A bias test on the relative accuracy test data using the procedures in 40 CFR Part 75, Appendix A, Section 76. If the bias test is failed, the NO_x CEMS shall require an adjustment to each hour of measured data using the bias adjustment factor (BAF), as required by 40 CFR Appendix A, Section 7.6.5 and Appendix B, Section 2.3.3. For CEMS already applying the 10% adjustment required in Section VI.C(1)(d), the owner or operator must apply both the 10% and the BAF to each hour of data.
- (f) A DAHS verification demonstrating that both the missing data procedures and formulas are implemented properly.

(2) **Non-Part 75 Appendix E Testing Initial Certification Requirements**

An owner or operator electing to determine NO_x mass emissions using a NO_x mass emission rate vs heat input correlation curve must use the following procedures:

- (a) Perform tests specified in 40 CFR Part 75, Appendix E Section 2.1.
- (b) During testing, determine the mass emission rate at each heat input level by multiplying the NO_x emission rate times the heat input for each operating load.
- (c) Plot the tabulated results as an x-y graph for each fuel and (as applicable) combination of fuels combusted according to the

following procedures. Plot the heat input rate (mmBtu/hr) as the independent (or x) variable and the NO_x emission rates (lb/mmBtu) as the dependant (or y) variable) for each load point. Construct the graph by drawing straight line segments between each load point. Draw a horizontal line to the y-axis from the minimum heat input (load) point.

- (d) Record during the testing all unit operating parameters required by Appendix E. If the unit has add-on emission controls, also record the control equipment operating parameters.

(3) Maximum NO_x Emission Rate Certification Requirements

If an owner or operator elects to use a unit-specific default NO_x emission rate, the owner or operator must certify a NO_x system based on a rate determined using the following procedures.

- (a) Determine all operating parameters for the unit and any associated add-on control equipment. Determine the recommended ranges for each of those parameters.
- (b) Perform tests specified in 40 CFR Part 75, Appendix E, Section 2.1 for each type of fuel combusted by the unit.
- (c) Record during testing all unit operating parameters to ensure that the unit is operating within those parameters. If the unit has add-on emission controls also record the control equipment operating parameters.
- (d) Record NO_x emission rate for each hour of the test and determine the maximum potential NO_x emission rate during any hour of the test for each type of fuel combusted.

(4) Certification Requirements for Gas, OILM and OILV Systems Used to Determine Heat Input

For oil and or gas-fired units at which fuel flowmeters are used to determine heat input, the owner or operator must certify accuracy of each fuel flow meter comprising the system either:

- (a) According to the certification standards and procedures for fuel flowmeter performance in 40 CFR Part 75, Appendix D; or
- (b) By documenting that all fuel flowmeters in the system are fuel flowmeters used by owner or operator of the unit and the supplier of the fuel for billing purposes as specified in a fuel contracts between these parties. This option is not allowed if the owner or

operator and fuel supplier are the same party or are owned by common owners.

(5) Certification Requirements for Flow and Diluent CEMS Used to Determine Heat Input

For units that use flow and diluent CEMS to calculate hourly heat input, owners and operators must meet all the applicable initial certification requirements in 40 CFR Part 75, Appendix A for the flow and diluent CEMS, including the three-load flow relative accuracy test. For any flow CEMS failing the bias test in Appendix A, Section 7.6, the owner or operator must apply a bias adjustment factor to each hour of data measured and reported from the system, as required in Appendix A, Section 7.6.5.

(6) Certification Requirements for Non-Part 75 Heat Input Systems Used with a NO_x CEMS

For any unit for which a non-Part 75 method is used to determine heat input, the owner or operator must certify the heat input system as follows:

- (a) Perform a concurrent RATA on the flow and diluent CEMS and the heat input monitoring method at each of three different exhaust gas velocities, selected as follows:
 1. Any frequently used low operating level between the minimum safe level and stable operating level at 50% load.
 2. Any frequently used high operating level between stable operating level at 80% load and the maximum operating level.
 3. Any operating level considered "normal" operating conditions. If the normal operating level is within a specified range (100% of the operating level of either 1. or 2. above) use a level that is evenly spaced between the low and high operating levels. The normal operating level shall be equal to the faceplate capacity of the unit adjusted for any physical or regulatory limitations or other deratings.
- (b) Use the following methods from Appendix A of 40 CFR Part 60 to perform concurrent diluent/heat input RATAs.
 1. For Flow, Method 2 (or 2A, 2B, 2C or 2D).
 2. For CO₂ or O₂, Method 3 (or 3A).
- (c) Evaluate the combined relative accuracy of the heat input monitoring system as follows:

1. Use a DAHS to calculate heat input in mmBtu/hr using the flow and diluent CEMS and the heat input monitoring system using the formulas F-15, F-16, F-17, or F-18 of 40 CFR Part 75, Appendix F.
2. Determine the relative accuracy using the procedures in 40 CFR Part 75 Appendix A, Section 7.3.
3. If the combined relative accuracy of the heat input monitoring system is less than or equal to 10.0%, the CEMS passes the relative accuracy test.
4. Perform a bias test on the relative accuracy test data using the procedures in 40 CFR Part 75, Appendix A, Section 7.6. If the bias test is failed, the owner or operator shall adjust each hour of measured data using the bias adjustment factor, as required for flow by 40 CFR Appendix A, Section 7.1.5 and Appendix B, Section 2.3.3.

D. DAHS Verification Requirements

Owners and operators of all units subject to this rule must complete DAHS verification testing, including formula and missing data procedure verification on a unit basis, as required under 40 CFR Part 75.

E. Certification Applications

The designated representative must submit a certification application to the State regulatory agency within ___ days of completing certification testing.

This certification application should consist of the following:

- (1) Hardcopy test reports, including all data from the reference method or other testing, and supporting data for the reference method testing (i.e., reference method monitor calibrations).
- (2) Electronic Test Reports, including certification test data and monitoring plan data in the electronic data reporting (EDR v2.0) format.
- (3) DAHS verification, including documentation that the owner or operator has successfully completed all of the required DAHS verifications, including both the formula verification and the missing data verification. This verification requirement can be fulfilled by completing the DAHS verification form. Owners or operators should indicate when each required test was passed and should also indicate any tests that are not applicable to their particular unit or monitoring methodology.

(4) Certification Statements

F. Certification Deadlines

(1) Existing Units

An owner or operator must successfully complete required certification testing before May 1, 1998. The DR must submit a complete certification application within 45 days of the completion of the last certification test. If certification testing is successfully completed before May 1, 1998, the monitoring systems will be considered provisionally certified as of midnight April 30, 1998. The DR may report data from a provisionally certified monitoring system if the system has also met all applicable quality assurance requirements since the date of provisional certification. The data from a provisionally certified monitoring system are considered valid unless the State regulatory agency informs the DR that the certification application has been disapproved.

(2) New Units

Owners or operators of new units that commence operation on or after May 1, 1998 must complete certification testing by the later of:

- (a) The first day of the ozone season after the source commences commercial operation or
- (b) The earlier of
 - 1. 45 unit operating days after the unit commences commercial operation; or
 - 2. 180 calendar days after the unit commences commercial operation. The DR of a new unit must report emissions data for each hour of operation on or after May 1, 1998 whether or not monitoring systems have been provisionally certified.

(3) Emissions Reporting Prior to Certification

For any period after the initial compliance deadline in which an owner or operator of any unit does not have a system certified, the owner or operator must report data using:

- (a) Reference method testing; or
- (b) Maximum potential values for heat input and for NO_x emission rate for the unit.

VII. Operational and Quality Assurance Requirements

The owner or operator of any unit subject to the requirements of the NO_x Budget Program must develop and implement a quality control program for all of the monitoring systems and their associated components. At a minimum, the owner or operator must develop and maintain a written plan that describes step-by-step procedures and operations for each of the applicable quality assurance requirements in this Section.

A. Requirements for Part 75 Units

Owners and operators of units subject to the Acid Rain Program must meet the operational and quality assurance requirements of 40 CFR Part 75.

B. Requirements for Non-Part 75 Units Using NO_x CEMS

The owners or operators of a NO_x budget unit using NO_x CEMS must:

- (1) Perform daily calibrations for each calendar year operating day according to the requirements of 40 CFR Part 75 Appendices A and B.
- (2) Perform and pass a three point linearity test in accordance with 40 CFR Part 75, Appendix A, Section 6.2. once during each calendar quarter in which the unit operates more than 168 hours.
- (3) If no linearity tests are performed because the operating time for each quarter is less than 168 hours, perform and pass at least one linearity test in accordance with 40 CFR Part 75, Appendix A, Section 6.2 during the first quarter in which the unit operates during each calendar year.
- (4) Perform a relative accuracy test audit (RATA) and bias test for all NO_x CEMS on an annual basis. To the extent practicable, this RATA should be performed between April 1 and May 31 of each year and is subject to the standards specified in Section VI.C(1) above. Apply bias adjustment factors from the bias test to all measured emissions based on the requirements of 40 CFR Part 75 Appendix A, Section 7.1.5 and Appendix B Section 2.2.3 beginning with the hour in which the last measurement of the RATA is recorded.

C. Requirements for Non-Part 75 Units Using Flow CEMS

- (1) Perform daily calibrations for each calendar year operating day according to the requirements of 40 CFR Part 75 Appendices A and B.
- (2) Perform a three-load relative accuracy test audit (RATA) and bias test for all flow CEMS on an annual basis. To the extent practicable, this RATA should be performed between April 1 and May 31 of each year and is subject to the standards in 40 CFR Part 75, Appendices A and B. Apply bias adjustment factors from the bias test to all measured emissions based on the requirements of 40 CFR Part 75 Appendix A,

Section 7.1.5 and Appendix B Section 2.2.3 beginning with the hour in which the last measurement of the three-load RATA test is recorded.

D. Requirements for Non-Part 75 Units Using Appendix E Methodology

Owners and operators of non-Part 75 units using 40 CFR Part 75 Appendix E to determine NO_x mass emissions must meet the quality assurance requirements of Appendix E.

E. Requirements for Non-Part 75 Units Using a Unit-Specific NO_x Emission Rate

Owners and operators of non-Part 75 units that determine a unit-specific emission rate must retest every five years to determine the maximum NO_x emission rate for the next five year period.

F. Requirements for Non-Part 75 Units Using the Appendix D Heat Input Methodology

Owners and operators of oil and gas units that use fuel flowmeters and Appendix D must meet the quality assurance requirements of 40 CFR Part 75 Appendix D.

G. Requirements for Non-Part 75 Units Using Approved Alternative Heat Input Methodologies

The owner or operator of a unit using an approved alternative heat input system must demonstrate that each major component of the monitoring system passes quality assurance standards approved in the petition. Unless otherwise provided in the system approval, these requirements should include the following specifications:

- (1) Daily or periodic calibration tests or test comparable to CEMS daily calibrations required under Part 75.
- (2) Quarterly linearity check or test comparable to linearity checks required under Part 75 Appendix B.
- (3) Annual relative accuracy test as described above for initial certification.
- (4) If an owner or operator of a budget source utilizes boiler efficiency testing as part of the method for determining heat input and the unit fails the periodic RATA, the boiler efficiency testing must be repeated before the periodic RATA test is repeated.

H. Definition of Out-of-Control Periods for Non-Part 75 Units

A NO_x, diluent, flow CEMS or heat input system is considered out-of-control starting with the hour of the failure of any required quality assurance test. A system is considered in control in the hour in which the failed test is successfully completed. For

purposes of daily calibration tests, the monitor is not out-of-control if the failed calibration, the corrective action and the passed recalibration occur within the same hour and if sufficient monitor data are obtained following the recalibration to validate the hour.

During the period that the CEMS or monitoring system is out-of-control, the owner or operator may:

- (1) Measure and report data from a backup monitoring system that has met all of the initial and ongoing quality assurance requirements of this rule.
- (2) Measure and report data using a reference method monitoring system, as defined in the unit monitoring plan.
- (3) Estimate and report data using the missing data procedures defined in Section IX.

VIII. Recertification Events and Procedures

A. Recertification Requirements for Part 75 Units

Owners and operators of units subject to Part 75 are subject to all recertification requirements of Part 75.

B. Applicability of Recertification Requirements for Non-Part 75 Units

Owners and operators of non-Part 75 units are subject to the recertification requirements in the following situations:

- Whenever the owner or operator makes a replacement, modification or change in the certified monitoring system (which includes the automated data acquisition and handling system) that significantly affects the ability of the system to measure or record the NO_x emission rate or the heat input rate, the owner or operator;

Examples of changes which require recertification include replacement of the analytical method including the analyzer, change in location or orientation of the sampling probe or site, rebuilding of the analyzer or all monitoring system equipment and replacement of an existing monitoring system.

- If an owner or operator has not operated and maintained a monitoring system for two calendar years;
- A replacement, modification or change to the flue gas handling system or the unit operation that significantly changes the flow or concentration profile, the monitoring system or component.

- Following a determination by the State regulatory agency that a replacement, modification or change in a monitoring system significantly affects the ability of the monitoring system to measure or record the NO_x emission rate or the heat input rate.

C. **Recertification Tests Requirements for Non-Part 75 Units**

(1) **Notification of Recertification Testing**

[To be completed]

(2) **Tests Required**

For recertification testing, the owner or operator shall complete all of the tests required for initial certification, as described in Section VI, unless otherwise approved by the State on a case-by-case basis, or in further written guidance.

D. **Impact of Recertification Event on Data Acceptability**

The owner or operator shall substitute missing data according to the standard missing data procedures during the period following the replacement, modification or change to the monitoring system up to the time of successful completion of all recertification testing except as provided below.

If the replacement, modification or change is such that the data collected by the prior certified monitoring system are no longer representative, such as after a change to the flue gas handling system or unit operation that requires changing the span value, the owner or operator must substitute the one of the following values, as appropriate. For any change that results in a significantly higher concentration or flow rate. In these circumstances substitute maximum potential values as approved by the State regulatory agency during the period following the replacement, modification or change up to the time of successful completion of all recertification testing.

IX. **NO_x Budget Program Reporting**

A. **General Reporting Requirements**

Owners and operators of all NO_x budget units must transmit electronically to EPA's Acid Rain Division an emission report each quarter. This report must contain specified information on unit operating status, emissions data, quality assurance activities, reasons for missing data periods, recertification and certification status and monitoring plan information each budget period. Owners or operators who do not have the capability to submit a quarterly report via modem or Internet may apply to the State for a hardship exception and submit quarterly reports on diskettes by mail. Detailed instructions and reporting formats are in the ***NO_x Budget Program Monitoring Certification and Reporting Instructions*** and ***Electronic Data Reporting Version 2.0***.

B. Reporting Requirements for Part 75 Units

Owners or operators of Part 75 units must include in the quarterly emissions reports required under Part 75 of each year the following additional information, as defined in **EDR Version 2.0**:

- Hourly NO_x Mass Emissions (lbs/hr)
- Cumulative Budget Period NO_x Mass Emissions (tons/budget period)
- Additional Monitoring Plan Information Related to the NO_x Budget Program
- Certification Status Information as Required by the NO_x Budget Program

C. Requirements for Non-Part 75 Units

Owners or operators of non-Part 75 units must submit quarterly reports to the Acid Rain Division containing the following information, as defined in **EDR Version 2.0**.

(1) All Units

- Cumulative Budget Period NO_x Mass Emissions (tons/budget period)
- Monitoring Plan Information
- Certification Status Information as Required by the NO_x Budget Program
- Information on Missing Data Periods
- Initial Certification and Recertification Test Results
- Ongoing QA/QC Activities
- Span, Default and Maximums Information
- Hourly NO_x Mass Emissions (lbs/hr)
- Hourly Operating Time

(2) Units Using NO_x CEMS

- Hourly NO_x and Diluent Data

(3) Units Using NO_x Appendix D & E

- Hourly Status of Operating and Control Equipment Parameters
- Hourly Fuel Flow and Heat Input
- Hourly NO_x Mass Emissions (lbs/hr)

(4) Units Using Default NO_x Rates

- Hourly NO_x Mass Emissions (lbs/hr)

(5) Units Using Stack Flow and Diluent Heat Input Methodology

- Hourly Flow Rate
- Hourly Heat Input

(6) Units Using Appendix D Heat Input Methodology

- Heat Content of Fuel
- Hourly Fuel Flow and Heat Input

(7) Units Using Alternative Hourly Heat Input Methodologies

- Heat Content of Fuel or Surrogate
- Hourly Fuel Flow and Heat Input or Surrogate

D. Missing Data Procedures

- (1) The owner or operator of a Part 75 unit with NO_x and flow CEMS must use initial and standard missing data routines in 40 CFR 75 Subpart D.
- (2) The owner or operator of a Part 75 unit using 40 CFR Part 75 Appendix D procedures must use initial and standard missing data routines consistent with Appendix D, Section 2.4.
- (3) The owner or operator of a Part 75 unit using Appendix E to estimate NO_x emission rate must use standard missing data routines consistent with 40 CFR Part 75 Appendices D and E. If the unit has add-on NO_x controls, missing data procedures must be applied for any hour in which the control equipment operating parameters are not within the established ranges.
- (4) The owner or operator of a non-Part 75 budget unit using NO_x or flow CEMS must use the initial and standard missing data routines in 40 CFR Part 75 Subpart D, including the reporting and use of 2,160 operating hours of year-round emissions data for look-back purposes.
- (5) The owner or operator of a non-Part 75 budget unit using Appendix D fuel flow meter systems certified under Part 75 or the NO_x Budget Program to calculate and report hourly heat input, must use the missing data procedures in 40 CFR Part 75 Appendix D, Section 2.4.
- (6) The owner or operator of a non-Part 75 budget unit using an approved alternative monitoring system to measure and report hourly heat input must use initial and standard missing data procedures for NO_x and flow CEMS consistent with 40 CFR Part 75 subpart D, including the reporting and use of 2,160 operating hours of year-round emissions data for look-back purposes.