



Electronic Data Reporting

Acid Rain Program/ Subpart H

December, 2005
Version 2.2

1. *Who is required to use Electronic Data Reporting v2.1 or v2.2 formats?*

All units for which monitoring and reporting emissions data according to 40 CFR Part 75 is required must use either EDR v2.1 or v2.2. Presently, this includes Acid Rain Program units, and units in the NO_x Budget Trading Program. Most of the affected units use v2.1, but voluntary upgrade to v2.2 is permitted. However, certain other units are prohibited from using v2.1 and must use v2.2.

2. *Which Acid Rain Program and NO_x Budget Trading Program facilities are required to use EDR v2.1 and which ones are required to use EDR v2.2?*

Acid Rain Program (ARP) units have been required to report in EDR v2.1 since April 1, 2000. Voluntary upgrades to v2.2 are permitted.

Except as noted below, non-Acid Rain affected facilities subject to the NO_x Budget Trading Program must report in EDR v2.1 or v2.2 beginning on the applicable "commencement of reporting" date specified in the State SIP.

The following units are **required** to use v2.2:

- Non-ARP units that do not produce electrical or steam load (e.g., cement kilns, refinery process heaters, etc.)
- Low mass emissions (LME) units for which fuel and-unit-specific NO_x emission rate testing or re-testing is performed after July 12, 2002.
- Other ARP and Subpart H units that elect to use certain new reporting options provided by the June 12, 2002 rule.
- A unit that has an approved petition to report emission data from a predictive emission monitoring system (PEMS)

The first three bulleted items above are associated with changes to Part 75 that were published in June, 2002. EPA has provided separate implementation guidance for each category of rule change, to clarify whether v2.2 is needed (see "Implementation Guidelines for the June 12, 2002 Revisions to Part 75" – available on the Clean Air Markets Division (CAMD) website at www.epa.gov/airmarkets/).

3. *If my facility is load-based and I do not use a PEMS and I do not elect to use any of the new options in the June 12, 2002 rule, may I continue to report in EDR v2.1 ?*

Yes—or you may voluntarily upgrade to v 2.2.

4. *How do the structure and data elements of EDR v2.2 differ from EDR v2.1?*

There are very few structural differences between EDR versions 2.1 and 2.2. All of the record types listed in Tables 1 through 5 below are common to both EDR versions. However, in EDR v2.2, six record types (i.e., RTs 300,

360, 504, 605, 650 and 660) contain data fields not found in v2.1. These data fields are found at the "tail end" of each record type. They support the changes to Part 75 that were promulgated on June 12, 2002.

In addition to the structural record type differences described above, the data element descriptions in a number of v2.2 Record Types differ from the corresponding data element descriptions in the v2.1 record types. Some codes in the "RANGE" and "UNITS" columns of the v2.2 records also differ from v2.1. A few data fields that are active in v2.1 are reserved in v2.2. Most of these differences are associated with the June 12, 2002 rule revisions.

Table A-1 in Appendix A of this document describes the structural differences between EDR versions 2.1 and 2.2. Table A-2 in Appendix A summarizes the differences in the data element descriptions, codes, etc. between the two EDR versions.

5. *How does the December 2005 edition of v2.2 differ from the March, 2003 edition ?*

Two new record types, RT 532 and RT 617, have been added to the EDR. Other than that, there are no structural differences or differences in the data element descriptions between the March, 2003 and December, 2005 editions of EDR v 2.2.

6. *How is the EDR organized?*

The EDR is divided into five tables:

Table 1 provides an index listing all the possible EDR record types that may be submitted in a v2.2 electronic report.

Tables 2 through 5 define the specific computerized layout or "record structures" of the electronic reports, containing the following types of data: Quarterly Emission Data (Table 2), Monitoring Plan Data (Table 3), Certification-QA/QC Test Data (Table 4), and Compliance Certification Data (Table 5).

The record structures in Tables 2 through 5 define the order, length, and placement of information within the electronic report or "file" (i.e., the Record Type, Type Code, Start Column, Data Element Description, Units, Range, Length, and Fortran (FTN) Format for each data element in the electronic report). This information is used to construct electronic files to submit electronic reports to the U.S. Environmental Protection Agency.

7. *Which EDR records are needed for which programs?*

The Program Column in Tables 2 through 5 indicates the regulatory programs for which each record type may be applicable. "ARP" indicates Part 75 Acid Rain Program requirements, and "Subpart H" indicates the applicability of the record to a unit using the NO_x mass monitoring provisions in Subpart H of Part 75 (e.g., units covered by the NO_x Budget Trading Program).

8. *How do I find out more about reporting using the EDR v2.2 format?*

More detailed information on the selection of record types for reporting and the use of specific columns within a record type for a particular program is included in the "**Revised EDR v2.2 Reporting Instructions**" (December 2005). You can find these instructions on EPA's Clean Air Markets Division website at www.epa.gov/airmarkets/.

TABLE 1: EDR v2.2 ELECTRONIC DATA REPORTING RECORD TYPES

| RECORD TYPES | | | |
|-------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------|
| GROUP | SUB-GROUP | RECORD TYPE | RECORD |
| Facility Information (100) | Facility Information | Facility Identification | 100 |
| | | Record Types Submitted (Optional) | 101 |
| | | Facility Location and Identification Information | 102 |
| Monitoring Data (200) | Pollutant Gas Concentrations | SO ₂ Concentration Data | 200 |
| | | NO _x Concentration Data | 201 |
| | | CO ₂ Concentration Data | 202 |
| | Diluent Gas Concentrations | CO ₂ Diluent Concentration Data | 210 |
| | | O ₂ Diluent Concentration Data | 211 |
| | Moisture Data | Moisture Data | 212 |
| | Volumetric Flow | Volumetric Flow Data | 220 |
| | Daily Quality Assurance Data and Results | Daily Calibration Test Data and Results | 230 |
| | | Flow Daily Interference Check Results | 231 |
| | Reference Method Backup QA Data | Hourly Pollutant and Diluent Concentration Data from RM Backup Analyzers | 260 |
| | | Quality Assurance Run Data for Reference Method Analyzers or Systems Used as Backup CEMS | 261 |
| | | Reference Method Backup Flow Rate Monitor (Run Summary) | 262 |
| Unit Data (300) | Unit Operating and Cumulative Emissions Data | Unit Operating Parameters | 300 |
| | | Quarterly Cumulative Emissions Data | 301 |
| | | Oil Fuel Flow | 302 |
| | | Gas Fuel Flow | 303 |
| | | Quarterly Heat Input From Long Term Fuel Flow Measurements for Qualifying Low Mass Emission Units | 305 |
| | | Cumulative NO _x Mass Emissions Data | 307 |
| | SO ₂ Mass Emissions Data | SO ₂ Mass Emissions Data | 310 |
| | | SO ₂ Mass Emissions Alternative Estimation Parameters for Oil | 313 |
| | | SO ₂ Mass Emissions Alternative Estimation Parameters for Natural Gas | 314 |
| | NO _x Emissions Data | NO _x Emission Rate Data | 320 |
| | | NO _x Emission Rate Alternative Estimation Parameters for Oil and Gas | 323 |
| | | NO _x Emission Rate Estimation Based on Appendix E | 324 |
| | | NO _x Emission Rate Estimation Based on Appendix E for Multiple Fuel Hours | 325 |
| | | NO _x Mass Emissions | 328 |

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TABLE 1: EDR v2.2 ELECTRONIC DATA REPORTING RECORD TYPES

| RECORD TYPES | | | |
|--------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| GROUP | SUB-GROUP | RECORD TYPE | RECORD |
| Unit Data (300) | CO ₂ Mass Emissions Data | CO ₂ Mass Emissions Data | 330 |
| | | CO ₂ Mass Emissions Estimation Parameters | 331 |
| | Qualifying Low Mass Emissions Unit Data | Hourly Emissions Data for Qualifying Low Mass Emissions Units | 360 |
| Monitoring Plan Information (500) | | Stack/Pipe Header Definition Table | 503 |
| | | Unit Information | 504 |
| | | Program Indicator for Report | 505 |
| | | EIA Cross Reference Information | 506 |
| | | Fuel Usage Data to Qualify as a Peaking Unit or an Acid Rain Program Gas-fired Unit | 507 |
| | | Subpart H Reporting Frequency Change | 508 |
| | | Monitoring Systems/Analytical Components Table | 510 |
| | | Formula Table | 520 |
| | | Span Table | 530 |
| | | Maximums, Minimums, Defaults and Constants | 531 |
| | | Rectangular Duct WAF Data | 532 |
| | | Unit and Stack Operating Load Data | 535 |
| | | Range of Operation and Normal Load or Level | 536 |
| | | Fuel Flowmeter Data | 540 |
| | | Reasons for Monitoring System Downtime or Missing Parameter (Optional) | 550 |
| | | Monitoring System Recertification, Maintenance, or Other Events | 556 |
| | | Appendix E NO _x Correlation Curve Segments | 560 |
| | | Monitoring Methodology Information | 585 |
| Control Equipment Information | 586 | | |
| Unit Fuel Type | 587 | | |
| Certification Test Data (600) | Calibration/Error Tests | 7-Day Calibration Error Test Data and Results | 600 |
| | | Linearity Checks | Linearity Check Data |
| | Linearity Check Results | | 602 |
| | Leak Checks | Flow Leak Check Results | 603 |
| | | Flow/Load Checks | Reference Data for Flow-to-Load Ratio or Gross Heat Rate Evaluation |
| | Quarterly Flow-to-Load Ratio or Gross Heat Rate Check | | 606 |

(cont.)

TABLE 1: EDR v2.2 ELECTRONIC DATA REPORTING RECORD TYPES

| RECORD TYPES | | | |
|----------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------|
| GROUP | SUB-GROUP | RECORD TYPE | RECORD |
| Certification Test Data (600) | RATA/Bias Tests | RATA and Bias Test Data | 610 |
| | | RATA and Bias Test Results | 611 |
| | | Reference Method Supporting Data for Flow RATA Tests | 614 |
| | | Reference Method Supporting Data for Flow RATA Tests | 615 |
| | | Reference Method Supporting Data for Flow RATA Tests | 616 |
| | | Reference Method Supporting Data for Method 2J | 617 |
| | Cycle Time Test | Cycle Time Test Data and Results | 621 |
| | On Line/Off Line Calibration Demonstration | Qualifying Test for Off-line Calibration Error Tests | 623 |
| | Miscellaneous QA Test/Activity | Other QA Activities | 624 |
| | Fuel Flowmeter Accuracy Tests | Fuel Flowmeter Accuracy Test | 627 |
| | | Accuracy Test for Orifice, Nozzle, or Venturi Type Fuel Flowmeters | 628 |
| | Quarterly Fuel Flow-to-Load Analysis | Baseline Data for Fuel-Flow-to-Load Ratio or Gross Heat Rate Check for Fuel Flowmeters | 629 |
| | | Quarterly Fuel-Flow-to-Load Test for Fuel Flowmeters | 630 |
| | Alternative Monitoring Petition Data | Alternative Monitoring System Approval Petition Data | 640 |
| | | Alternative Monitoring System Approval Petition Results and Statistics | 641 |
| | LME Certification | Qualifying Data for Low Mass Emissions Units Excepted Methodology | 645 |
| | Appendix E and Unit Specific Default Emission Rate Test Data | NO _x Emission Rate Correlation Test Data | 650 |
| | | NO _x Emission Rate Correlation Results | 651 |
| | | Heat Input from Oil Combusted During Test | 652 |
| | | Heat Input from Gas Combusted During Test | 653 |
| | | Unit Group Testing | 660 |
| | QA Test Extensions/Exemption Claims | Single-load or Single-level Flow RATA Claim | 695 |
| | | Fuel Flowmeter Accuracy Test Extension | 696 |
| | | RATA Deadline Extension or Exemption | 697 |
| | | Quarterly QA Test Exemption Claim | 698 |
| | | QA Test Extension Claim Based on Grace Period | 699 |

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TABLE 1: EDR v2.2 ELECTRONIC DATA REPORTING RECORD TYPES

| RECORD TYPES | | | |
|-----------------------------|--------------------|---------------------------------------------------------------------------------------------------|---------------|
| GROUP | SUB-GROUP | RECORD TYPE | RECORD |
| Certification Data (900) | Certification Data | Part 75 Certification Statement and Designated Representative Signature | 900 |
| | | Part 72 Certification Statement | 901 |
| | | Cover Letter Text (file specific) (Optional) | 910 |
| | | Cover Letter Text (not specific to file) (Optional) | 920 |
| | | Subpart H Certification Statement and NO _x Authorized Account Representative Signature | 940 |
| | | Subpart H General Certification Statement | 941 |
| | | Contact Person Record (Optional) | 999 |

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| FACILITY INFORMATION | | | | | | | | |
|--------------------------------------------------|-------------------|-----------|-------------------------------------------|-------------|--------|-------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| FACILITY INFORMATION | | | | | | | | |
| Facility Identification | 100 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Facility/ORISPL number | | | | 6 | I6 |
| | | 10 | Calendar quarter data contained in report | | | 1-4 | 1 | I1 |
| | | 11 | Calendar year data contained in report | | YYYY | ≥1993 | 4 | I4 |
| | | 15 | EDR version () | | | V2.2 | 5 | A5 |
| Total Record Length | | | | | | | 19 | |
| Record Types Submitted (Optional) | 101 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit ID | | | | 6 | A6 |
| | | 10 | Stack/Pipe ID | | | | 6 | A6 |
| | | 16 | Parameter reported ¹ | | | | 7 | A7 |
| | | 23 | Record type used | | | | 3 | I3 |
| 26 | Number of records | | | | 1-9999 | 4 | I4 | |
| Total Record Length | | | | | | | 29 | |
| Facility Location and Identification Information | 102 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Plant name | | | | 20 | A20 |
| | | 24 | [Reserved] | | | | 12 | |
| | | 36 | EPA AIRS facility system (AFS) ID | | | | 10 | A10 |
| | | 46 | State facility ID | | | | 15 | A15 |
| | | 61 | Source category/type | | | | 20 | A20 |
| | | 81 | Primary SIC code | | | | 4 | I4 |
| | | 85 | State postal abbreviation | | | | 2 | A2 |
| | | 87 | County code (FIPS) | | | | 3 | I3 |
| | | 90 | [Reserved] | | | | 1 | |
| 91 | Latitude | | | DDMMSS | | 6 | I6 | |
| 97 | Longitude | | | DDDMMSS | | 7 | I7 | |
| Total Record Length | | | | | | | 103 | |

(cont.)

¹ Available codes are: CO2CONC, CO2MASS, DILUENT, FLOWRTE, GASRATE, HEATNP, LOWMASS, MOISTUR, NOXCONC, NOXMASS, NOXRATE, OILRATE, OPERATN, OSNSUMM, QTRSUMM, SO2CONC, SO2MASS

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| MONITORING DATA | | | | | | | | |
|-----------------------------------------------------------|-----------|---------------------|----------------------------------------------------------------------|-------------|--------|-------------------------------------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| POLLUTANT GAS CONCENTRATIONS | | | | | | | | |
| SO ₂ Concentration Data ARP only | 200 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Date | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 |
| | | 24 | Percent monitor data availability for SO ₂ | | % | 0.0-100.0 | 5 | F5.1 |
| | | 29 | Average SO ₂ concentration for the hour | | ppm | | 6 | F6.1 |
| | | 35 | Average SO ₂ concentration for the hour adjusted for bias | | ppm | | 6 | F6.1 |
| | | 41 | Method of determination code | | | 01-10,12,16,17,19,20,21,22,23,54,55 | 2 | I2 |
| Total Record Length | | | | | | | 42 | |
| NO _x Concentration Data | 201 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Date | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 |
| | | 24 | Average NO _x concentration for the hour | | ppm | | 6 | F6.1 |
| | | 30 | Method of determination code | | | 01-04,06-12,17,19,20,21,22,23,54,55 | 2 | I2 |
| | | 32 | Adjusted average NO _x concentration for the hour | | ppm | | 6 | F6.1 |
| | | 38 | Percent monitor data availability for NO _x concentration | | % | 0.0-100.0 | 5 | F5.1 |
| Total Record Length | | | | | | | 42 | |
| CO ₂ Concentration Data ARP Only | 202 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Date | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 |
| | | 24 | Average CO ₂ concentration for the hour | | % | | 6 | F6.1 |
| | | 30 | Method of determination code | | | 01-04,06-10,12,17,20,54,55 | 2 | I2 |
| | | 32 | Percent monitor data availability for CO ₂ concentration | | % | 0.0-100.0 | 5 | F5.1 |
| | | Total Record Length | | | | | | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| MONITORING DATA | | | | | | | | |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------|---------------------------------|-------------------|----------------------------------------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| DILUENT GAS CONCENTRATIONS | | | | | | | | |
| CO ₂ Diluent Concentration Data | 210 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Date | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 |
| | | 24 | Average CO ₂ concentration for the hour | | % | 0.0-100.0 | 5 | F5.1 |
| | | 29 | Method of determination code | | | 01-04, 06-10,12,17, 20,54,55 | 2 | I2 |
| 31 | Percent monitor data availability for CO ₂ concentration | | % | 0.0-100.0 | 5 | F5.1 | | |
| Total Record Length | | | | | | | 35 | |
| O ₂ Diluent Concentration Data | 211 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Date | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 |
| | | 24 | Average O ₂ concentration for the hour | | % | 0.0-100.0 | 5 | F5.1 |
| | | 29 | Method of determination code | | | 01-04, 06-10, 12,17,20, 54,55 | 2 | I2 |
| 31 | Moisture basis of measurement (W-wet or D-dry (for O ₂ used for moisture calculations), Blank (for O ₂ used only for diluent purposes)) | | | W,D | 1 | A1 | | |
| 32 | Percent monitor data availability for O ₂ concentration | | % | 0.0-100.0 | 5 | F5.1 | | |
| Total Record Length | | | | | | | 36 | |
| MOISTURE DATA | | | | | | | | |
| Moisture Data | 212 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Date | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 |
| | | 24 | Average moisture content of flue gases for the hour | | %H ₂ O | 0.0-100.0 | 5 | F5.1 |
| | | 29 | Formula ID | | | | 3 | A3 |
| 32 | Method of determination code | | | 01-04, 06-10,12, 21,54,55 | 2 | I2 | | |
| 34 | Percent monitor data availability for moisture | | % | 0.0-100.0 | 5 | F5.1 | | |
| Total Record Length | | | | | | | 38 | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| MONITORING DATA | | | | | | | | | |
|-------------------------------------------------|----------------------------|-----------|-------------------------------------------------------------------|-------------|--------|-----------|------------------|--------------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| VOLUMETRIC FLOW | | | | | | | | | |
| Volumetric Flow Data | 220 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | YYMMDD | | 6 | I6 | |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 24 | Percent monitor data availability for volumetric flow | | % | 0.0-100.0 | 5 | F5.1 | |
| | | 29 | Average volumetric flow rate for the hour | | scfh | | 10 | I10 | |
| | | 39 | Average volumetric flow rate for the hour adjusted for bias | | scfh | | 10 | I10 | |
| | | 49 | [Reserved] | | | | 5 | | |
| | | 54 | Load range or operational bin number | | | | 00-20 | 2 | I2 |
| | | 56 | Method of determination code | | | | 01-12, 20, 54,55 | 2 | I2 |
| Total Record Length | | | | | | | 57 | | |
| DAILY QUALITY ASSURANCE DATA AND RESULTS | | | | | | | | | |
| Daily Calibration Test Data and Results | 230 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | YYMMDD | | 6 | I6 | |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 24 | Instrument span ² | | | | 13 | F13.3 | |
| | | 37 | Reference value ² | | | | 13 | F13.3 | |
| | | 50 | Measured value ² | | | | 13 | F13.3 | |
| | | 63 | Results (calibration error or R-A) | | % | 0.0-100.0 | 5 | F5.1 | |
| | | 68 | Alternative performance specification (APS) flag ³ | | | 0,1 | 1 | I1 | |
| | | 69 | [Reserved] | | | | 2 | | |
| | | 71 | Calibration gas or reference signal level (Z-zero, M-mid, H-high) | | | Z,M,H | 1 | A1 | |
| 72 | Span scale (H-high, L-low) | | | H,L | 1 | A1 | | | |
| Total Record Length | | | | | | | 72 | | |
| Flow Daily Interference Check Results | 231 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | YYMMDD | | 6 | I6 | |
| | | 22 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 24 | Status (P-pass, F-fail) | | | P,F | 1 | A1 | |
| 25 | [Reserved] | | | | 2 | | | | |
| Total Record Length | | | | | | | 26 | | |

(cont.)

² Report span, reference values, and measured values in calibration span units defined in RT 530, column 62.

³ If an alternative performance specification (|R-A|) is used for SO₂ or NO_x low emitters or for low-span DP-type flow monitors, according to section 3 of Appendix A to Part 75, a 1 is reported; a zero is reported otherwise. For CO₂ or O₂ |R-A| is the normal calculation method; therefore, a 0 (zero) should always be reported for CO₂ and O₂ and there is no alternative specification.

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| MONITORING DATA | | | | | | | | | |
|--------------------------------------------------------------------------|-----------|-----------|--------------------------------------------------------------------------|-------------|-------|--------|--------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| REFERENCE METHOD BACKUP QA DATA | | | | | | | | | |
| Hourly Pollutant and Diluent Concentration Data from RM Backup Analyzers | 260 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Reference method component ID | | | | 3 | A3 | |
| | | 13 | Reference method monitoring system ID | | | | 3 | A3 | |
| | | 16 | Parameter monitored (SO2, NOX, CO2, O2) | | | | 4 | A4 | |
| | | 20 | Run number | | | | 2 | I2 | |
| | | 22 | Date | | | YYMMDD | | 6 | I6 |
| | | 28 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 30 | Unadjusted (raw) average pollutant or diluent concentration for the hour | | | %, ppm | | 7 | F7.2 |
| | | 37 | Adjusted average pollutant or diluent concentration for the hour | | | %, ppm | | 7 | F7.2 |
| Total Record Length | | | | | | | 43 | | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| MONITORING DATA | | | | | | | | | | |
|------------------------------------------------------------------------------------------|-------------------------------------|-----------|----------------------------------------------------------------------------------------------|-------------|-------|--------|----------|--------------|------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | | |
| Quality Assurance Run Data for Reference Method Analyzers or Systems Used as Backup CEMS | 261 | 1 | Record type code | | | | 3 | I3 | | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | | |
| | | 10 | Reference method component ID | | | | 3 | A3 | | |
| | | 13 | Reference method monitoring system ID | | | | 3 | A3 | | |
| | | 16 | Run number | | | | 2 | I2 | | |
| | | 18 | RM run start date | | | YYMMDD | | 6 | I6 | |
| | | 24 | RM run start hour | | | HH | 00-23 | 2 | I2 | |
| | | 26 | RM run end date | | | YYMMDD | | 6 | I6 | |
| | | 32 | Rm run end hour | | | HH | 00-23 | 2 | I2 | |
| | | 34 | Type of analyzer/system | | | | EXT, DIL | 3 | A3 | |
| | | 37 | Moisture basis of RM analysis | | | | WET, DRY | 3 | A3 | |
| | | 40 | Instrument span (as defined in App A, Part 60) | | | | | 5 | I5 | |
| | | 45 | Dilution factor | | | | | 5 | I5 | |
| | | 50 | Reference zero gas concentration | | | | | 7 | F7.2 | |
| | | 57 | Initial (pre-test) calibration response--zero gas | | | | | 7 | F7.2 | |
| | | 64 | Pre-test calibration error--zero gas (% of span) | | | | % | 5 | F5.1 | |
| | | 69 | Reference mid-level gas concentration | | | | | 7 | F7.2 | |
| | | 76 | Initial (pre-test) calibration response--mid gas | | | | | 7 | F7.2 | |
| | | 83 | Pre-test calibration error--mid gas (% of span) | | | | % | 5 | F5.1 | |
| | | 88 | Reference high-level gas concentration | | | | | 7 | F7.2 | |
| | | 95 | Initial (pre-test) calibration response--high gas | | | | | 7 | F7.2 | |
| | | 102 | Pre-test calibration error--high gas (% of span) | | | | % | 5 | F5.1 | |
| | | 107 | Upscale gas used during run (M-mid, H-high) | | | | | M,H | 1 | A1 |
| | | 108 | Pre-run system response--zero gas | | | | | | 7 | F7.2 |
| | | 115 | Pre-run system bias (non-dilution) or calibration error (dilution)--zero gas (% of span) | | | | % | | 5 | F5.1 |
| | | 120 | Post-run system response--zero gas | | | | | | 7 | F7.2 |
| | | 127 | Post-run system bias (non-dilution) or calibration error (dilution)--zero gas (% of span) | | | | % | | 5 | F5.1 |
| | | 132 | Pre-run system response--upscale gas | | | | | | 7 | F7.2 |
| | | 139 | Pre-run system bias (non-dilution) or calibration error (dilution)--upscale gas (% of span) | | | | % | | 5 | F5.1 |
| | | 144 | Post-run system response--upscale gas | | | | | | 7 | F7.2 |
| | | 151 | Post-run system bias (non-dilution) or calibration error (dilution)--upscale gas (% of span) | | | | % | | 5 | F5.1 |
| | | 156 | Zero drift (% of span) | | | | % | | 5 | F5.1 |
| | | 161 | Calibration drift (% of span) | | | | % | | 5 | F5.1 |
| 166 | Stack gas density adjustment factor | | | | | | 5 | F5.3 | | |
| Total Record Length | | | | | | | 170 | | | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| MONITORING DATA | | | | | | | | | |
|---------------------------------------------------------|-----------------------------|-----------|------------------------------------------------------------------|-------------|-------|----------------------|--------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| Reference Method Backup Flow Rate Monitor (Run Summary) | 262 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Reference method component ID | | | | 3 | A3 | |
| | | 13 | Reference method monitoring system ID | | | | 3 | A3 | |
| | | 16 | Run date | | | YYMMDD | | 6 | I6 |
| | | 22 | Run hour | | | HH | 00-23 | 2 | I2 |
| | | 24 | Number of traverse points | | | | | 2 | I2 |
| | | 26 | (Square root of ΔP) _{avg.} | | | in. H ₂ O | | 5 | F5.2 |
| | | 31 | T _s , stack temperature | | | °F | | 4 | I4 |
| | | 35 | P _{bar} , barometric pressure, in. Hg | | | in. Hg | | 5 | F5.2 |
| | | 40 | P _g , stack static pressure, in. H ₂ O | | | in. H ₂ O | | 5 | F5.2 |
| | | 45 | % CO ₂ in stack gas, dry basis | | | % | | 5 | F5.2 |
| | | 50 | % O ₂ in stack gas, dry basis | | | % | | 5 | F5.2 |
| | | 55 | % moisture in stack gas | | | % H ₂ O | | 5 | F5.2 |
| | | 60 | M _d , stack gas molecular weight, dry basis | | | lbs/lbs-mole | | 5 | F5.2 |
| | | 65 | M _s , stack gas molecular weight, wet basis | | | lbs/lbs-mole | | 5 | F5.2 |
| | | 70 | Pitot tube or probe coefficient | | | | | 5 | F5.3 |
| | | 75 | Date of latest pitot tube or probe calibration | | | YYMMDD | | 6 | I6 |
| | | 81 | A _s , stack or duct cross-sectional area at test port | | | ft ² | | 6 | F6.1 |
| | | 87 | Total volumetric flow rate | | | scfh | | 10 | I10 |
| 97 | Average axial velocity | | | ft/sec | | 8 | F8.3 | | |
| 105 | Reference method probe type | | | | | 3 | A3 | | |
| Total Record Length | | | | | | | 107 | | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | |
|-----------------------------------------------------|-----------------------------------------------------|-----------|--------------------------------------------------------------------------|-------------|------------|-----------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| UNIT OPERATING AND CUMULATIVE EMISSIONS DATA | | | | | | | | |
| Unit Operating Parameters | 300 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 |
| | | 10 | Date | | YYMMDD | | 6 | I6 |
| | | 16 | Hour | | HH | 00-23 | 2 | I2 |
| | | 18 | Unit operating time | | | 0.00-1.00 | 4 | F4.2 |
| | | 22 | Gross unit load during unit operation | | MWe | | 6 | I6 |
| | | 28 | Steam load during unit operation | | 1000 lb/hr | | 6 | I6 |
| | | 34 | Load range or operational bin number | | | 00-20 | 2 | I2 |
| | | 36 | Hourly heat input rate during unit operation for all fuels | | mmBtu/hr | | 7 | F7.1 |
| | | 43 | Heat input formula ID | | | | 3 | A3 |
| | | 46 | F-factor for heat input calculation | | CEMS Only | | 10 | F10.1 |
| | | 56 | Use of diluent cap for heat input calculation for this hour (Y-cap used) | | CEMS Only | Y | 1 | A1 |
| | | 57 | Total heat input for the hour | | Optional | mmBtu | 7 | F7.1 |
| 64 | Type of fuel combusted during the hour ⁵ | | | | 3 | A3 | | |
| Total Record Length | | | | | | | 66 | |
| Quarterly Cumulative Emissions Data ARP Only | 301 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 |
| | | 10 | Date of report generation | | YYMMDD | | 6 | I6 |
| | | 16 | Quarterly SO ₂ tons emitted | | ton | | 10 | F10.1 |
| | | 26 | Cumulative annual SO ₂ tons emitted | | ton | | 10 | F10.1 |
| | | 36 | Quarterly average NO _x emission rate | | lb/mmBtu | | 13 | F13.3 |
| | | 49 | Cumulative annual average NO _x emission rate | | lb/mmBtu | | 13 | F13.3 |
| | | 62 | Quarterly CO ₂ tons emitted | | ton | | 10 | F10.1 |
| | | 72 | Cumulative annual CO ₂ tons emitted | | ton | | 10 | F10.1 |
| | | 82 | Quarterly total heat input | | mmBtu | | 10 | I10 |
| | | 92 | Cumulative annual total heat input | | mmBtu | | 10 | I10 |
| | | 102 | [Reserved] | | | | 6 | |
| | | 108 | [Reserved] | | | | 6 | |
| | | 114 | Quarterly unit/stack/pipe operating hours | | hr | | 4 | I4 |
| | | 118 | Cumulative annual unit/stack/pipe operating hours | | hr | | 4 | I4 |
| Total Record Length | | | | | | | 121 | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | | |
|-----------------------------------------------------|--------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------|-------------|--------|----------|-------------|--------------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| UNIT OPERATING AND CUMULATIVE EMISSIONS DATA | | | | | | | | | |
| Oil Fuel Flow | 302 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Date | | YYMMDD | | 6 | I6 | |
| | | 19 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 21 | Mass flow rate of oil during oil combustion | | | lb/hr | | 10 | F10.1 |
| | | 31 | Source of data code for mass oil flow rate ⁴ | | | | 0-6,9 | 1 | I1 |
| | | 32 | Load range or operational bin number | | | | 00-20 | 2 | I2 |
| | | 34 | Gross calorific value (GCV) of oil | | | | | 10 | F10.1 |
| | | 44 | [Reserved] | | | | | 1 | |
| | | 45 | Heat input rate from oil during oil combustion | | | mmBtu/hr | | 7 | F7.1 |
| | | 52 | Fuel usage time | | | | 0.01-1.00 | 4 | F4.2 |
| | | 56 | Type of oil ⁵ | | | | | 3 | A3 |
| | | 59 | Volumetric flow rate of oil during oil combustion | | | | | 10 | F10.1 |
| | | 69 | Units of measure for volumetric oil flow rate ⁶ | | | | | 5 | A5 |
| | | 74 | Source of data code for volumetric oil flow rate ⁴ | | | | 0,1,3,5,6,9 | 1 | I1 |
| | | 75 | Density of oil | | | | | 8 | F8.5 |
| | | 83 | Units of measure for density of oil ⁶ | | | | | 5 | A5 |
| | | 88 | [Reserved] | | | | | 1 | |
| | | 89 | Flag to indicate multiple or single fuel types combusted (M-multiple, S-single) | | | | | 1 | A1 |
| 90 | Type of oil sampling and GCV value used in calculations ⁷ | | | | | 2 | I2 | | |
| 92 | Type of oil sampling and density value used in calculations ⁷ | | | | | 2 | I2 | | |
| Total Record Length | | | | | | | 93 | | |

(cont.)

- ⁴
- 0 = Measured data (using a mass flowmeter)
 - 1 = Substitute data using lookback procedures
 - 2 = Mass flowrate derived from volumetric measurement (Column 31 only)
 - 3 = Maximum potential fuel flow rate (simplified missing data procedure for peaking units, only)
 - 4 = Emergency fuel (maximum unit fuel flow rate) (Column 31 only)
 - 5 = Ignitor oil from tank measurements
 - 6 = Uncertified OFFM to measure ignitor oil
 - 9 = Default minimum fuel flow rate

⁵ See instructions for allowable codes.

⁶ Limited to a Table of Codes: VOLUMETRIC OIL FLOW: SCFH (scf/hr); GALHR (gal/hr); BBLHR (barrels/hr), M3HR (m³/hr)
DENSITY: LBSCF (lb/scf); LBGAL (lb/gal); LBBBL (lb/barrel), LBM3 (lb/m³)

⁷ Type of oil sampling and value used:
0 = Actual measured value from daily manual sample
1 = Actual measured value from flow proportional/weekly composite sample
2 = Actual measured value from oil tank sample
4 = Highest sampled value in previous calendar year from oil tank sampling (or a higher sampled value, superseding the assumed value)
5 = Highest sampled value in previous calendar year from as delivered sample (or a higher sampled value, superseding the assumed value)
6 = Maximum value allowed by contract (or a higher oil tank sample value, superseding the assumed value)
7 = Maximum value allowed by contract (only if higher than measured oil as delivered sample)
8 = Maximum potential value from Table D-6 for missing data or emergency fuel
10 = Highest sampled value in previous 30 days

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | | |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------|-------------|------------|-------------|------------|--------------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| UNIT OPERATING AND CUMULATIVE EMISSIONS DATA | | | | | | | | | |
| Gas Fuel Flow | 303 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Date | | YYMMDD | | 6 | I6 | |
| | | 19 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 21 | Flow rate of gas during gas combustion | | | 100 scfh | | 10 | F10.1 |
| | | 31 | Source of data code for gas flow rate ⁸ | | | | 0-4 | 1 | I1 |
| | | 32 | Load range or operational bin number | | | | 00-20 | 2 | I2 |
| | | 34 | Gross calorific value (GCV) of gas | | | Btu/100 scf | | 10 | F10.1 |
| | | 44 | [Reserved] | | | | | 1 | |
| | | 45 | Heat input rate from gas during gas combustion | | | mmBtu/hr | | 7 | F7.1 |
| | | 52 | Fuel usage time | | | | 0.01-1.00 | 4 | F4.2 |
| | | 56 | Type of gas ⁵ | | | | | 3 | A3 |
| | | 59 | Flag to indicate multiple or single fuel types combusted (M-multiple, S-single fuel) | | | | M,S | 1 | A1 |
| 60 | Type of gas sampling and GCV value used in calculations ⁹ | | | | 0-2,4-8,10 | 2 | I2 | | |
| Total Record Length | | | | | | | 61 | | |
| Quarterly Heat Input From Long Term Fuel Flow Measurements for Qualifying Low Mass Emission Units | 305 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Type of fuel ⁵ | | | | 3 | A3 | |
| | | 16 | Quarter or reporting period | | | | 1-4, 2A,2S | 2 | A2 |
| | | 18 | Year | | YYYY | | 4 | I4 | |
| | | 22 | Quarterly or reporting period fuel flow | | | | | 10 | I10 |
| | | 32 | Units of measure for fuel flow ¹⁰ | | | | | 5 | A5 |
| | | 37 | Gross calorific value | | | | | 10 | F10.1 |
| | | 47 | Gross calorific value units of measure ¹¹ | | | | | 8 | A8 |
| 55 | Total heat input | | | mmBtu | | 10 | I10 | | |
| Total Record Length | | | | | | | 64 | | |

(cont.)

- ⁸
- 0 Hourly Measurement
 - 1 Substitute Data Using Lookback Procedures
 - 2 Default Minimum Fuel Flow Rate
 - 3 Maximum Potential Fuel Flow Rate (simplified missing data procedure for peaking units, only)
 - 4 Emergency Fuel (maximum unit fuel flow rate)
- ⁹
- 0 Actual Measured GCV From Most Recent Monthly Sampling
 - 1 Highest of All Sampled Values in Previous Calendar Year (or a higher sampled value, superseding the assumed value)
 - 2 Maximum Value Allowed by Contract (or a higher sampled value, superseding the assumed value)
 - 4 Actual Measured GCV From Continuous (hourly) Sampling
 - 5 Gas Fuel in Lots, as Delivered Sampling: Highest of All Sampled Values in Previous Calendar Year (or a higher sampled value, superseding the assumed value)
 - 6 Gas Fuel in Lots, as Delivered Sampling: Maximum Value Allowed by Contract (or a higher sampled value, superseding the assumed value)
 - 7 Actual Measured GCV From Daily Sampling
 - 8 Missing Data Based on Table D-6 Default
 - 10 Actual GCV From Most Recent Shipment or Lot
- ¹⁰ Limited to a table of codes: LB, SCF, GAL
- ¹¹ Limited to a table of codes: BTU/LB, BTU/SCF, BTU/GAL

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | | |
|---------------------------------------------------------------------------------------------------|-----------|-----------|-----------------------------------------------------------------------------------|-------------|-------------------|-------|--------|--------------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| UNIT OPERATING AND CUMULATIVE EMISSIONS DATA | | | | | | | | | |
| Cumulative NO _x Mass Emissions Data ARP LME and Subpart H Only | 307 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Date of report generation | | YYYYMMDD | | 8 | I8 | |
| | | 18 | Reporting period NO _x tons emitted | | | ton | | 10 | F10.1 |
| | | 28 | Cumulative ozone season NO _x tons emitted | | | ton | | 10 | F10.1 |
| | | 38 | Reporting period heat input | | | mmBtu | | 10 | F10.1 |
| | | 48 | Cumulative ozone season heat input | | | mmBtu | | 10 | F10.1 |
| | | 58 | Total reporting period operating hours | | | hr | | 4 | I4 |
| | | 62 | Cumulative ozone season operating hours | | | hr | | 5 | I5 |
| | | 67 | Cumulative annual NO _x tons emitted | | | ton | | 10 | F10.1 |
| | | 77 | Cumulative annual total heat input | | Subpart H only | mmBtu | | 10 | I10 |
| | | 87 | Cumulative annual unit/stack/pipe operating hours | | Subpart H only | hr | | 4 | I4 |
| Total Record Length | | | | | | | 90 | | |
| SO₂ MASS EMISSIONS DATA | | | | | | | | | |
| SO ₂ Mass Emissions Data ARP Only | 310 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Date | | YYMMDD | | 6 | I6 | |
| | | 16 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 18 | SO ₂ mass emission rate for the hour | | | lb/hr | | 7 | F7.1 |
| | | 25 | SO ₂ mass emission rate during unit operation based on adjusted values | | | lb/hr | | 7 | F7.1 |
| | | 32 | Formula ID from monitoring plan for hourly SO ₂ emissions | | | | | 3 | A3 |
| | | 35 | Total SO ₂ mass emissions for the hour | | Optional | lb | | 7 | F7.1 |
| Total Record Length | | | | | | | 41 | | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------|-------------|----------------|---------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| SO₂ MASS EMISSIONS DATA | | | | | | | | |
| SO ₂ Mass Emissions Alternative Estimation Parameters for Oil ARP Only | 313 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Monitoring system ID | | | | 3 | A3 |
| | | 13 | Date | | YYMMDD | | 6 | I6 |
| | | 19 | Hour | | HH | 00-23 | 2 | I2 |
| | | 21 | Sulfur content of oil sample used to calculate SO ₂ mass emission rate | | % | .01-5.0 | 5 | F5.2 |
| | | 26 | [Reserved] | | | | 3 | |
| | | 29 | [Reserved] | | | | 1 | |
| | | 30 | SO ₂ mass emission rate from oil during oil combustion | | lb/hr | | 7 | F7.1 |
| | | 37 | Total SO ₂ mass emissions from oil | Optional | lb | | 7 | F7.1 |
| 44 | Type of sulfur sampling and value used in calculations ¹² | | | | 1-9 | 2 | I2 | |
| Total Record Length | | | | | | | 45 | |
| SO ₂ Mass Emissions Alternative Estimation Parameters for Gas ARP Only | 314 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Monitoring system ID | | | | 3 | A3 |
| | | 13 | Date | | YYMMDD | | 6 | I6 |
| | | 19 | Hour | | HH | 00-23 | 2 | I2 |
| | | 21 | Sulfur content of gas sample used to calculate SO ₂ mass emission rate | | grains/100 scf | | 8 | F8.1 |
| | | 29 | [Reserved] | | | | 1 | |
| | | 30 | Default SO ₂ emission rate | | lb/mmBtu | | 7 | F7.5 |
| | | 37 | SO ₂ mass emission rate from gas during gas combustion | | lb/hr | | 8 | F8.5 |
| | | 45 | Total SO ₂ mass emissions from gas | Optional | lb | | 7 | F7.1 |
| 52 | Type of sulfur sampling and value used in calculations ¹² | | | | 0,3,5, 7-10 | 2 | I2 | |
| Total Record Length | | | | | | | 53 | |

(cont.)

¹²

Type of data for sulfur content:

0 = Actual measured hourly average sample from GCH (gas)

1 = Actual measured value from oil composite sample

2 = Actual measured value from oil tank sample

3 = Highest daily sample in 30 daily samples (gas or oil)

4 = Highest sampled value in previous calendar year from oil tank sampling (or a higher sampled value, superseding the assumed value)

5 = Highest sampled value in previous calendar year from as delivered sample (gas or oil) (or a higher sampled value, superseding the assumed value)

6 = Maximum value allowed by contract (or a higher oil tank sample value, superseding the assumed value)

7 = Maximum value allowed by contract (or a higher sample value, superseding the assumed value)

8 = Maximum potential value from Table D-6 for oil or gas for missing data or emergency fuel

9 = Actual measured value from daily sample

10 = Actual measured value from most recent shipment or lot (gas)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | | |
|---------------------------------------------------------------------------------|---------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------|-----------|----------------------|--------------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| NO_x EMISSIONS DATA | | | | | | | | | |
| NO _x Emission Rate Data | 320 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Date | | YYMMDD | | 6 | I6 | |
| | | 19 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 21 | Percent monitor data availability for NO _x emission rate calculations | | % | 0.0-100.0 | 5 | F5.1 | |
| | | 26 | F-factor converting NO _x concentrations to emission rates | | | | 10 | F10.1 | |
| | | 36 | Average NO _x emission rate for the hour | | | lb/mmBtu | 6 | F6.3 | |
| | | 42 | Adjusted average NO _x emission rate for the hour | | | lb/mmBtu | 6 | F6.3 | |
| | | 48 | Load range or operational bin number | | | | 00-10 | 2 | I2 |
| | | 50 | Formula ID from monitoring plan for hourly NO _x emission rate | | | | | 3 | A3 |
| 53 | Method of determination code | | | | 01-12, 14,21,22,23, 25,54,55 | 2 | I2 | | |
| Total Record Length | | | | | | | 54 | | |
| NO _x Emission Rate Alternative Estimation Parameters for Oil and Gas | 323 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Date | | YYMMDD | | 6 | I6 | |
| | | 19 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 21 | Parameters status flag (Y-in spec, N-out of spec, X-parameters data missing or invalid, W-operation above highest tested heat input point, Z-operation below lowest tested heat input point, E-Emergency Fuel, U-Uncontrolled, M-correlation curve has expired) | | | | Y,N,X, W,Z,E,U, M | 1 | A1 |
| | | 22 | Average NO _x emission rate for the hour | | | lb/mmBtu | 6 | F6.3 | |
| | | 28 | [Reserved] | | | | | 6 | |
| 34 | [Reserved] | | | | | 6 | | | |
| 40 | Segment ID of correlation curve | | | | | 3 | A3 | | |
| Total Record Length | | | | | | | 42 | | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|----------|-----------------|--------------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| NO_x EMISSIONS DATA | | | | | | | | | |
| NO _x Emission Rate Estimation Based on Appendix E | 324 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | NO _x monitoring system ID | | | | 3 | A3 | |
| | | 13 | Fuel flow monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 24 | Parameters status flag (Y-in spec, N-out of spec, X-parameters data missing or invalid, W-operation above highest tested heat input point, Z-operation below lowest tested heat input point, E-Emergency fuel, U-Uncontrolled, M-correlation curve has expired) | | | | Y,N,X,W,Z,E,U,M | 1 | A1 |
| | | 25 | Average NO _x emission rate for the hour for fuel type | | | lb/mmBtu | | 6 | F6.3 |
| | | 31 | NO _x mass emission rate for the hour for fuel type | | | lb/hr | | 11 | F11.2 |
| | | 42 | Segment ID of correlation curve | | | | | 3 | A3 |
| 45 | Flag to indicate multiple or single fuel types combusted (M-multiple, S-single) | | | | M,S | 1 | A1 | | |
| Total Record Length | | | | | | | 45 | | |
| NO _x Emission Rate Estimation Based on Appendix E for Multiple Fuel Hours | 325 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Date | | | YYMMDD | | 6 | I6 |
| | | 16 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 18 | Average NO _x emission rate for all fuels during multiple fuel hours | | | lb/mmBtu | | 6 | F6.3 |
| Total Record Length | | | | | | | 23 | | |
| NO _x Mass Emissions Subpart H Only | 328 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Date | | | YYMMDD | | 6 | I6 |
| | | 16 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 18 | Unit operating time | | | | 0.00-1.00 | 4 | F4.2 |
| | | 22 | NO _x mass emission rate during unit operation | Optional | | lb/hr | | 10 | F10.1 |
| | | 32 | Total NO _x mass emissions for the hour | | | lb | | 10 | F10.1 |
| | | 42 | Formula ID from monitoring plan for total NO _x mass | | | | | 3 | A3 |
| | | 45 | NO _x methodology for the hour ⁵ | | | | | 10 | A10 |
| | | 55 | Heat input rate methodology for the hour ⁵ | | | | | 10 | A10 |
| Total Record Length | | | | | | | 64 | | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | |
|-----------------------------------------------------------------------------|-----------|-----------|---------------------------------------------------------------------------------------------------------------|-------------|--------|-------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| CO₂ MASS EMISSIONS DATA | | | | | | | | |
| CO ₂ Mass Emissions Data ARP Only | 330 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 |
| | | 10 | Date | | YYMMDD | | 6 | I6 |
| | | 16 | Hour | | HH | 00-23 | 2 | I2 |
| | | 18 | CO ₂ mass emission rate for the hour | | ton/hr | | 10 | F10.1 |
| | | 28 | Formula ID from monitoring plan for hourly CO ₂ mass emission rate | | | | 3 | A3 |
| | | 31 | [Reserved] | | | | 2 | |
| | | 33 | Total CO ₂ mass emissions for the hour | Optional | ton | | 10 | F10.1 |
| | | 43 | Use of diluent cap value for CO ₂ calculation for this hour (Y-cap used) | CEMS only | | Y | 1 | A1 |
| Total Record Length | | | | | | | 43 | |
| CO ₂ Mass Emissions Estimation Parameters ARP Only | 331 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Date | | YYMMDD | | 6 | I6 |
| | | 16 | Total daily combustion-related CO ₂ mass emissions adjusted for CO ₂ retained in flyash | | ton | | 10 | F10.1 |
| | | 26 | Total daily sorbent-related CO ₂ mass emissions | | ton | | 10 | F10.1 |
| | | 36 | Total daily CO ₂ mass emissions | | ton | | 10 | F10.1 |
| Total Record Length | | | | | | | 45 | |

(cont.)

TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES

| UNIT DATA | | | | | | | | | |
|--------------------------------------------------------------------------------------|-----------|---------------------|-------------------------------------------------------|-------------|------------|----------|--------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| QUALIFYING LOW MASS EMISSIONS UNIT DATA | | | | | | | | | |
| Hourly Emissions Data for Qualifying Low Mass Emissions Units LME Only | 360 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit ID | | | | 6 | A6 | |
| | | 10 | Date | | YYMMDD | | 6 | I6 | |
| | | 16 | Hour | | HH | 00-23 | 2 | I2 | |
| | | 18 | Unit operating time ¹³ | | | 0.0-1.00 | 4 | F4.2 | |
| | | 22 | Gross unit load during unit operation | | MWe | | 6 | I6 | |
| | | 28 | Steam load | | 1000 lb/hr | | 6 | I6 | |
| | | 34 | Total hourly heat input (from all fuels) | | mmBtu | | 7 | F7.1 | |
| | | 41 | Fuel type ¹⁴ | | | | 3 | A3 | |
| | | 44 | SO ₂ mass emissions | | ARP only | lb | | 6 | F6.1 |
| | | 50 | NO _x mass emissions | | | lb | | 6 | F6.1 |
| | | 56 | CO ₂ mass emissions | | ARP only | ton | | 9 | F9.1 |
| | | 65 | Control status (C-controlled, U-uncontrolled) | | | | C,U | 1 | A1 |
| | | 66 | NO _x methodology for the hour ⁵ | | | | | 10 | A10 |
| | | 76 | Heat input rate methodology for the hour ⁵ | | | | | 10 | A10 |
| | | 86 | Base Load or Peak Load hour | | | | B,P | 1 | A1 |
| | | Total Record Length | | | | | | | 86 |

¹³ For LME units using long term fuel flow and reporting RT 305, report 1.00 for each hour in which any operation occurred.

¹⁴ See instructions for allowable codes. If multiple fuels are burned, report the fuel used to determine mass emissions (fuel with the highest SO₂, CO₂, and/or NO_x emission factor). See §§ 75.19(c)(3)(I), (4)(I), and (5)(I).

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | | |
|------------------------------------|----------------------------------------------------------|-----------|-------------------------------------------------------------------------|-------------|----------------|-----------------|--------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| Stack/Pipe Header Definition Table | 503 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Stack/Pipe description or name | | | | 20 | A20 | |
| | | 30 | Unit ID for associated unit | | | | 6 | A6 | |
| | | 36 | [Reserved] | | | | 1 | | |
| | | 37 | [Reserved] | | | | 6 | | |
| | | 43 | [Reserved] | | | | 6 | | |
| | | 49 | Activation date | | | YYMMDD | | 6 | I6 |
| | | 55 | Retirement date | | | YYMMDD | | 6 | I6 |
| | | 61 | Bypass stack flag (B-bypass) | | | | B | 1 | A1 |
| | | 62 | Stack exit height above ground level | | | ft | | 4 | I4 |
| | | 66 | Ground level elevation above sea level | | | ft | | 5 | I5 |
| | | 71 | Inside cross-sectional area at flue exit | | | ft ² | | 4 | I4 |
| | | 75 | Inside cross-sectional area at flow monitor location | | | ft ² | | 4 | I4 |
| Total Record Length | | | | | | | 78 | | |
| Unit Information | 504 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit ID | | | | 6 | A6 | |
| | | 10 | Unit type ⁵ | | | | 3 | A3 | |
| | | 13 | Maximum hourly heat input capacity | | | mmBtu | | 7 | F7.1 |
| | | 20 | Date of first commercial operation | | | YYYYMMDD | | 8 | I8 |
| | | 28 | Unit retirement date | | | YYYYMMDD | | 8 | I8 |
| | | 36 | Stack exit height above ground level | | | ft | | 4 | I4 |
| | | 40 | Ground level elevation above sea level | | | ft | | 5 | I5 |
| | | 45 | Inside cross-sectional area at flue exit | | | ft ² | | 4 | I4 |
| | | 49 | Inside cross-sectional area at flow monitor location | | | ft ² | | 4 | I4 |
| | | 53 | Non load-based unit identifier | | | | | 1 | A1 |
| Total Record Length | | | | | | | 53 | | |
| Program Indicator for Report | 505 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit ID | | | | 6 | A6 | |
| | | 10 | Program/Reporting requirements for which EDR is submitted ¹⁵ | | | | 10 | A10 | |
| | | 20 | Unit classification ⁵ | | | | 2 | A2 | |
| | | 22 | Reporting frequency (OS-ozone season, Q-quarterly) | | | | OS,Q | 2 | A2 |
| | | 24 | Program participation date | | | YYYYMMDD | | 8 | I8 |
| | | 32 | State regulation code (per State instructions) | | Subpart H only | | | 10 | A10 |
| 42 | State or local regulatory agency code (see instructions) | | Subpart H only | | | 4 | A4 | | |
| Total Record Length | | | | | | | 45 | | |

(cont.)

¹⁵ Available codes are: ARP, OTC-SUBH, SUBH,

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | | |
|-------------------------------------------------------------------------------------|-----------|-----------|--------------------------------------------------------------------------------------------------------|-------------|-------|----------|-----------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| EIA Cross Reference Information | 506 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit ID | | | | 6 | A6 | |
| | | 10 | Acid Rain Program or Subpart H monitoring location ID | | | | 6 | A6 | |
| | | 16 | EIA boiler ID | | | | 5 | A5 | |
| | | 21 | EIA flue ID | | | | 5 | A5 | |
| | | 26 | EIA reporting year | | | | 4 | I4 | |
| | | 30 | EIA reporting indicator (N-not reporting EIA forms) | | | | N | 1 | A1 |
| | | 31 | [Reserved] | | | | | 6 | |
| | | 37 | EIA facility number | | | | | 6 | I6 |
| Total Record Length | | | | | | | 42 | | |
| Fuel Usage Data to Qualify as a Peaking Unit or an Acid Rain Program Gas-Fired Unit | 507 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit ID | | | | 6 | A6 | |
| | | 10 | Current calendar year or ozone season | | | YYYY | | 4 | I4 |
| | | 14 | Ozone Season or Year 1 | | | YYYY | | 4 | I4 |
| | | 18 | Ozone Season or Year 1 type (P-projected, A-actual, D-operating data) | | | | P,A,D | 1 | A1 |
| | | 19 | Ozone Season or Year 1 % capacity for peaking units or % heat input for gaseous fuel | | | % | 0.0-100.0 | 5 | F5.1 |
| | | 24 | Ozone Season or Year 2 | | | YYYY | | 4 | I4 |
| | | 28 | Ozone Season or Year 2 type (P-projected, A-actual, D-operating data) | | | | P,A,D | 1 | A1 |
| | | 29 | Ozone Season or Year 2 % capacity for peaking units or % heat input from gaseous fuel | | | % | 0.0-100.0 | 5 | F5.1 |
| | | 34 | Ozone Season or Year 3 | | | YYYY | | 4 | I4 |
| | | 38 | Ozone Season or Year 3 type (P-projected, A-actual, D-operating data) | | | | P,A,D | 1 | A1 |
| | | 39 | Ozone Season or Year 3 % capacity for peaking units or % heat input from gaseous fuel | | | % | 0.0-100.0 | 5 | F5.1 |
| | | 44 | Three ozone season or year average annual capacity for peaking units or % heat input from gaseous fuel | | | % | 0.0-100.0 | 5 | F5.1 |
| | | 49 | Type of qualification (GF-gas-fired unit, PK-peaking unit, SK-ozone season peaking unit) | | | | GF,PK,SK | 2 | A2 |
| | | 51 | Method of qualifying as a peaking unit or as a gas-fired unit per § 72.2 ⁵ | | | | | 3 | A3 |
| Total Record Length | | | | | | | 53 | | |
| Subpart H Reporting Frequency Change | 508 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Stack/Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | New reporting frequency (OS-ozone season only, Q-quarterly) | | | | OS, Q | 2 | A2 |
| | | 12 | Begin date of new reporting frequency | | | YYYYMMDD | | 8 | I8 |
| Subpart H Only | | 20 | [Reserved] | | | | 8 | | |
| | | 28 | [Reserved] | | | | 1 | | |
| Total Record Length | | | | | | | 28 | | |

(cont.)

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | | |
|-------------------------------------------------------|---------------------------------|-----------|-------------------------------------------------------------|-------------|----------|-------|---------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| Monitoring Systems/ Analytical Components Table | 510 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Status (A-add, C-correct, D-delete, U-unchanged) | | | | A,C,D,U | 1 | A1 |
| | | 17 | System parameter monitored ¹⁶ | | | | | 4 | A4 |
| | | 21 | Primary/backup designation ¹⁷ | | | | | 2 | A2 |
| | | 23 | Component type code ¹⁸ | | | | | 4 | A4 |
| | | 27 | Sample acquisition method ⁵ | | | | | 3 | A3 |
| | | 30 | Manufacturer | | | | | 25 | A25 |
| | | 55 | Model/version | | | | | 15 | A15 |
| | | 70 | Serial number | | | | | 20 | A20 |
| | | 90 | [Reserved] | | | | | 6 | |
| | | 96 | [Reserved] | | | | | 4 | |
| 100 | First date system reported data | | | | YYYYMMDD | 8 | I8 | | |
| 108 | Last date system reported data | | | | YYYYMMDD | 8 | I8 | | |
| Total Record Length | | | | | | | 115 | | |
| Formula Table | 520 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Submission status (A-add, C-correct, D-delete, U-unchanged) | | | | A,C,D,U | 1 | A1 |
| | | 11 | Formula ID | | | | | 3 | A3 |
| | | 14 | Parameter monitored ⁵ | | | | | 4 | A4 |
| | | 18 | Formula code ⁵ | | | | | 5 | A5 |
| | | 23 | Formula text | | | | | 200 | A200 |
| Total Record Length | | | | | | | 222 | | |

(cont.)

¹⁶ Limited to a table of codes: System Parameter: CO₂, FLOW, GAS, H₂O, LTGS, LTOL, NOX, NOXC, O₂, OILM, OILV, OP, SO₂

¹⁷ Limited to a table of codes: Primary/Backup Designation: P-primary, B-regular non-redundant backup, DB-data backup, RB-redundant backup, RM-reference method backup, CI-certified monitor at control device inlet

¹⁸ Limited to a table of codes: Component Type: BGFF, BOFF, CALR, CO₂, CO₂A, CO₂H, CO₂L, DAHS, DL, DP, FLC, FLOW, GCH, GFFM, H₂O, NOX, NOXA, NOXH, NOXL, O₂D, O₂DA, O₂DH, O₂DL, O₂W, O₂WA, O₂WD, O₂WH, O₂WL, OFFM, OP, PLC, PRB, PRES, SO₂, SO₂A, SO₂H, SO₂L, TANK, TEMP

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | | |
|-----------------------------|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|---------------------------|--------|--------------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| Span Table | 530 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Parameter monitored ⁵ | | | | 4 | A4 | |
| | | 14 | Scale (H-high, L-low) | | | H,L | 1 | A1 | |
| | | 15 | Method for calculating MPC/MEC/MPF (F-formula, HD-historical data, PL-permit limit, OL-other limit, TR-test results, TB-table in Part 75, ME-manufacturer's estimate, GS-gas fired only) | | | F,HD, OL,PL, ME,TR, TB,GS | 2 | A2 | |
| | | 17 | MPC/MEC/MPF ¹⁹ | | | | 13 | F13.3 | |
| | | 30 | Maximum potential NO _x emission rate | | | lb/mmBtu | 6 | F6.3 | |
| | | 36 | Span value in units of daily calibration | | | | 13 | F13.3 | |
| | | 49 | Full scale range in units of daily calibration | | | | 13 | F13.3 | |
| | | 62 | Daily calibration units of measure ²⁰ | | | | 5 | A5 | |
| | | 67 | [Reserved] | | | | 1 | | |
| | | 68 | Span effective date | | | YYMMDD | 6 | I6 | |
| | | 74 | Span effective hour | | | HH | 2 | I2 | |
| | | 76 | Span inactivation date | | | YYMMDD | 6 | I6 | |
| | | 82 | Span inactivation hour | | | HH | 2 | I2 | |
| | | 84 | Dual spans required (D-dual ranges required/installed, O-dual ranges required/use of optional default high range value elected) (Blank if not applicable) | | | | D,O | 1 | A1 |
| | | 85 | Default high range value | | | | | 5 | I5 |
| | | 90 | Flow rate span value in SCFH | | | scfh | | 9 | I9 |
| | | 99 | Flow rate full scale value in SCFH | | | scfh | | 9 | I9 |
| Total Record Length | | | | | | | 107 | | |

(cont.)

¹⁹ Provide SO₂ and NO_x MPC/MEC in ppm, rounded to the nearest whole number. Provide CO₂ MPC in %. Provide flow maximum potential flowrate (MPF) in scfh.

²⁰ For SO₂ and NO_x use PPM. For CO₂ or O₂ use %. For flow use units corresponding to calibration as follows: ACFH, ACFM, AFPM, INH2O, KACFH, KACFM, KAFPM, KSCFH, KSCFM, KSFPM, MACFH, MSCFH, SCFH, SCFM, SFPM, AMSEC, SMSEC.

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | | |
|--------------------------------------------|-----------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------|-------------|----------|-------------------------|----------|--------------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| Maximums, Minimums, Defaults and Constants | 531 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Parameter ⁵ | | | | 4 | A4 | |
| | | 14 | Value of default, maximum, minimum or constant | | | | 13 | F13.3 | |
| | | 27 | Units of measure ²¹ | | | | 7 | A7 | |
| | | 34 | Purpose or intended use ⁵ | | | | 3 | A3 | |
| | | 37 | Type of fuel ⁵ | | | | 3 | A3 | |
| | | 40 | Indicator of use for controlled/uncontrolled hours (A-any hour, C-controlled, U-uncontrolled) | | | | A,C,U | 1 | A1 |
| | | 41 | Source of value ⁵ | | | | | 4 | A4 |
| | | 45 | Value effective date | | | YYYYMMDD | | 8 | I8 |
| | | 53 | Value effective hour | | | HH | | 2 | I2 |
| | | 55 | Value no longer effective date | | | YYYYMMDD | | 8 | I8 |
| | | 63 | Value no longer effective hour | | | HH | | 2 | I2 |
| | | 65 | SO ₂ emission factor | | | ARP only | lb/mmBtu | | 6 |
| Total Record Length | | | | | | | 70 | | |
| Rectangular Duct WAF Data | 532 | 1 | Record Type Code | | | 532 | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Duct Width at Test Location | | ft | | 5 | F5.1 | |
| | | 15 | Duct Depth at Test Location | | ft | | 5 | F5.2 | |
| | | 20 | WAF | | | 0.0001-0.9999 | 6 | F6.4 | |
| | | 26 | Method of Determining WAF | | | FT, AT, DF | 2 | I2 | |
| | | 28 | WAF Effective Date | | YYYYMMDD | 01/01/2004-current date | 8 | I8 | |
| | | 36 | WAF Effective Hour | | HH | 00-23 | 2 | I2 | |
| | | 38 | WAF No Longer Effective Date | | YYYYMMDD | 01/01/2004-current date | 8 | I8 | |
| | | 46 | WAF No Longer Effective Hour | | HH | 00-23 | 2 | I2 | |
| | | 48 | WAF Determination Date | | YYYYMMDD | 01/01/2004-current date | 8 | I8 | |
| | | 56 | Number of WAF Test Runs | | | 1-99 | 2 | I2 | |
| | | 58 | Number of Method 1 Traverse Points in WAF Test | | | 12-99 | 2 | I2 | |
| | | 60 | Number of Test Ports in WAF Test | | | 3-99 | 2 | I2 | |
| 62 | Number of Method 1 Traverse Points in Reference Flow RATA | | | 12-99 | 2 | I2 | | | |
| Total Record Length | | | | | | | 63 | | |

(cont.)

²¹ Limited to a table of codes: %, %H₂O, BBLHR, GALHR, HSCF, LBHR, LBMMBTU, M3HR, MMBTUHR, PPM, SCFH, TNMMBTU

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | |
|-------------------------------------------------------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-------------------------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| Unit and Stack Operating Load Data | 535 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 |
| | | 10 | Load units (MW-MWe, ST-1000lb steam) | | | MW,ST | 2 | A2 |
| | | 12 | Maximum hourly gross load | | | | 6 | I6 |
| | | 18 | [Reserved] | | | | 1 | |
| | | 19 | Exemption from three-level flow RATAs (P-peaking unit, B-bypass stack, S-single load testing only, approved by the State or EPA, 2-two-level testing for cert/recert and QA, approved by State or EPA) | | | B,P,S,2 | 1 | A1 |
| Total Record Length | | | | | | | 19 | |
| Range of Operation and Normal Operating Load or Level | 536 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Upper boundary of range of operation | | | MWe, 1000 lb/hr, ft/sec | 6 | I6 |
| | | 16 | Lower boundary of range of operation | | | MWe, 1000 lb/hr, ft/sec | 6 | I6 |
| | | 22 | Two most frequently-used load or operating levels | | | L,M,H | 3 | A3 |
| | | 25 | Designated normal load or operating level | | | L,M,H | 1 | A1 |
| | | 26 | Second designated normal load or operating level | Optional | | L,M,H | 1 | A1 |
| | | 27 | Date of historical load analysis or operating level determination (activation date) | | | YYYYMMDD | 8 | I8 |
| | | 35 | Inactivation date | | | YYYYMMDD | 8 | I8 |
| Total Record Length | | | | | | | 42 | |

(cont.)

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | | |
|------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------|---------|-----------------------------|--------|--------------|-----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| Fuel Flowmeter Data | 540 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Parameter monitored | | | GAS, LTGS, LTOL, OILM, OILV | 4 | A4 | |
| | | 17 | Type of fuel ⁵ | | | | 3 | A3 | |
| | | 20 | Maximum system fuel flow rate | | | | 10 | F10.1 | |
| | | 30 | Units of measure for maximum fuel flow rate ²² | | | | 5 | A5 | |
| | | 35 | Source of maximum rate (URV-upper range value, UMX-unit max) | | | URV, UMX | 3 | A3 | |
| | | 38 | Initial accuracy test method ⁵ | | | | 11 | A11 | |
| | | 49 | [Reserved] | | | | 11 | | |
| | 60 | Submission status (A-add, C-correct, D-delete, U-unchanged) | | | A,C,D,U | 1 | A1 | | |
| Total Record Length | | | | | | | 60 | | |
| Reasons for Monitoring System Downtime or Missing Parameter (Optional) | 550 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Parameter ⁵ | | | | 4 | A4 | |
| | | 14 | Monitoring system ID | | | | 3 | A3 | |
| | | 17 | Begin date | | | YYMMDD | 6 | I6 | |
| | | 23 | Begin hour | | | HH | 00-23 | 2 | I2 |
| | | 25 | End date | | | YYMMDD | 6 | I6 | |
| | | 31 | End hour | | | HH | 00-23 | 2 | I2 |
| | | 33 | Missing data reason code ⁵ | | | | 1-99 | 2 | I2 |
| | | 35 | Missing data description ²³ | | | | | 75 | A75 |
| | 110 | Corrective action description | | | | 75 | A75 | | |
| Total Record Length | | | | | | | 184 | | |
| Monitoring System Re-certification, Maintenance, or Other Events | 556 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Event code ⁵ | | | | 1-999 | 3 | I3 |
| | | 19 | Code for required test ⁵ | | | | 1-99 | 2 | I2 |
| | | 21 | Date of event | | | YYYYMMDD | | 8 | I8 |
| | | 29 | Hour of event | | | HH | 00-23 | 2 | I2 |
| | | 31 | Beginning of conditionally valid period (probationary calibration error test) date | | | YYYYMMDD | | 8 | I8 |
| | | 39 | Beginning of conditionally valid period (probationary calibration error test) hour | | | HH | 00-23 | 2 | I2 |
| | | 41 | Date that last test is successfully completed | | | YYYYMMDD | | 8 | I8 |
| | | 49 | Hour that last test is successfully completed | | | HH | 00-23 | 2 | I2 |
| | 51 | Indicator that conditionally valid data were reported at end of quarter | | | C | 1 | A1 | | |
| Total Record Length | | | | | | | 51 | | |

(cont.)

²² For volumetric flow meters for oil use SCFH (scf/hr); GALHR (gal/hr); BBLHR (barrels/hr); M3HR (M³/hr). For mass of oil flow meters use LBHR. For gas flow meters use HSCF (for 100 scfh).

²³ Optional field. Provide information if code does not adequately explain reason or event or if code 99 (OTHER) is used.

TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES

| MONITORING PLAN INFORMATION | | | | | | | | |
|-------------------------------------------------------|--------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------|----------------|----------|---------------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| Appendix E NO _x Correlation Curve Segments | 560 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Test date | | YYYYMMDD | | 8 | I8 |
| | | 18 | Test number | | | | 2 | I2 |
| | | 20 | Operating level | | | 0-99 | 2 | I2 |
| | | 22 | Segment ID | | | | 3 | A3 |
| | | 25 | NO _x monitoring system ID | | | | 3 | A3 |
| | | 28 | Heat input rate #1 (low) | | | mmBtu/hr | 7 | F7.1 |
| | | 35 | Heat input rate #2 (high) | | | mmBtu/hr | 7 | F7.1 |
| | | 42 | NO _x emission rate #1 | | | lb/mmBtu | 6 | F6.3 |
| | | 48 | NO _x emission rate #2 | | | lb/mmBtu | 6 | F6.3 |
| | | 54 | Type of fuel ⁵ | | | | 3 | A3 |
| | | 57 | [Reserved] | | | | 8 | |
| Total Record Length | | | | | | | 64 | |
| Monitoring Methodology Information | 585 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit ID | | | | 6 | A6 |
| | | 10 | Parameter ⁵ | | | | 4 | A4 |
| | | 14 | Monitoring methodology ⁵ | | | | 10 | A10 |
| | | 24 | Type of fuel associated with methodology ⁵ | | | | 3 | A3 |
| | | 27 | Primary/secondary methodology indicator | | | P,S | 1 | A1 |
| | | 28 | Missing data approach for methodology ⁵ | | | | 6 | A6 |
| | | 34 | Methodology start date | | YYYYMMDD | | 8 | I8 |
| 42 | Methodology end date | | YYYYMMDD | | 8 | I8 | | |
| Total Record Length | | | | | | | 49 | |
| Control Equipment Information | 586 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit ID | | | | 6 | A6 |
| | | 10 | Parameter (NOX, SO2, PART) | | | | 4 | A4 |
| | | 14 | Control equipment code ⁵ | | | | 6 | A6 |
| | | 20 | Primary/secondary controls indicator | | | P,S | 1 | A1 |
| | | 21 | Original installation (O-original) | | | O | 1 | A1 |
| | | 22 | Controls install date | | YYYYMMDD | | 8 | I8 |
| | | 30 | Controls optimization date | | YYYYMMDD | | 8 | I8 |
| | | 38 | Controls retirement date | | YYYYMMDD | | 8 | I8 |
| | | 46 | Seasonal controls indicator (S-ozone season only) | Subpart H only | | S | 1 | A1 |
| Total Record Length | | | | | | | 46 | |
| Unit Fuel Type | 587 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit ID | | | | 6 | A6 |
| | | 10 | Fuel types combusted ⁵ | | | | 3 | A3 |
| | | 13 | Fuel type start date | | YYYYMMDD | | 8 | I8 |
| | | 21 | Fuel type end date | | YYYYMMDD | | 8 | I8 |
| | | 29 | Primary/secondary/emergency/startup fuel indicator | | | E,I,P,S | 1 | A1 |
| | | 30 | Ozone season fuel switching flag (S-burned during ozone season for ozone control) | Subpart H only | | S | 1 | A1 |
| | | 31 | Demonstration method to qualify for monthly fuel sampling for GCV | | | GHS, GGC, GOC | 3 | A3 |
| 34 | Demonstration method to qualify for daily or annual fuel sampling for %S | ARP only | | SHS, SGC | 3 | A3 | | |
| Total Record Length | | | | | | | 36 | |

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|-----------------------------------------------|-----------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------|-------------|-------|------------------|-----------|--------------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| CALIBRATION/ERROR TESTS | | | | | | | | | |
| 7-Day Calibration Error Test Data and Results | 600 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 24 | Instrument span | | | | | 13 | F13.3 |
| | | 37 | Reference value | | | | | 13 | F13.3 |
| | | 50 | Measured value | | | | | 13 | F13.3 |
| | | 63 | Results (calibration error or R-A) | | | % , ppm | 0.0-100.0 | 5 | F5.1 |
| | | 68 | Alternative performance specification (APS) flag ³ | | | | 0,1 | 1 | I1 |
| | | 69 | Reference signal or calibration gas level (Z-zero, M-mid, H-high) | | | | Z,M,H | 1 | A1 |
| | | 70 | Span scale (H-high, L-low) | | | | H,L | 1 | A1 |
| | | 71 | Test number | | | | | 2 | I2 |
| 73 | Reason for test (C-initial cert, D-diagnostic, R-recert) | | | | | C,D,R | 2 | A2 | |
| Total Record Length | | | | | | | 74 | | |
| LINEARITY CHECKS | | | | | | | | | |
| Linearity Check Data | 601 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | | YYMMDD | | 6 | I6 |
| | | 22 | Time | | | HHMM | 0000-2359 | 4 | I4 |
| | | 26 | Instrument span | | | | | 13 | F13.3 |
| | | 39 | Reference value | | | | | 13 | F13.3 |
| | | 52 | Measured value | | | | | 13 | F13.3 |
| | | 65 | Calibration gas level (Z-zero, L-low, M-mid, H-high) | | | | Z,L,M,H | 1 | A1 |
| | | 66 | Span scale (H-high, L-low) | | | | H,L | 1 | A1 |
| | | 67 | Test number | | | | | 2 | I2 |
| 69 | Indicator of aborted test (A-aborted test) | | | | A | 1 | A1 | | |
| Total Record Length | | | | | | | 69 | | |
| Linearity Check Results | 602 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | | YYMMDD | | 6 | I6 |
| | | 22 | Instrument span | | | | | 13 | F13.3 |
| | | 35 | Mean of reference values | | | | | 13 | F13.3 |
| | | 48 | Mean of measured values | | | | | 13 | F13.3 |
| | | 61 | Results (linearity error or R-A) | | | % , ppm | 0.0-100.0 | 5 | F5.1 |
| | | 66 | Alternative performance specification (APS) flag ³ | | | | 0,1 | 1 | I1 |
| | | 67 | [Reserved] | | | | | 4 | |
| | | 71 | Calibration gas level (Z-zero, L-low, M-mid, H-high) | | | | Z,L,M,H | 1 | A1 |
| | | 72 | Span scale (H-high, L-low) | | | | H,L | 1 | A1 |
| | | 73 | Test number | | | | | 2 | I2 |
| 75 | Reason for test (C-initial cert, D-diagnostic, R-recert, Q-QA, G-grace period QA) | | | | | C,D,R,Q, RG,RQ,G | 2 | A2 | |
| Total Record Length | | | | | | | 76 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|---------------------------------------------------------------------|-----------|-----------|---------------------------------------------------------------------------|-------------|-------|-------------------------|-----------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| LEAK CHECKS | | | | | | | | | |
| Flow Leak Check Results | 603 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 24 | Status (P-pass, F-fail) | | | | P,F | 1 | A1 |
| | | 25 | [Reserved] | | | | | 4 | |
| | | 29 | Reason for test (D-diagnostic, Q-QA, G-grace period QA) | | | | D,Q,G | 2 | A2 |
| Total Record Length | | | | | | | 30 | | |
| FLOW/LOAD CHECKS | | | | | | | | | |
| Reference Data for Flow-to-Load Ratio or Gross Heat Rate Evaluation | 605 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Reference flow RATA end date | | | YYYYMMDD | | 8 | I8 |
| | | 21 | Reference RATA end time | | | HHMM | 0000-2359 | 4 | I4 |
| | | 25 | Test number | | | | | 2 | I2 |
| | | 27 | Average gross unit load (MWe or Steam) | | | MWe, 1000 lb/hr steam | | 6 | I6 |
| | | 33 | Operating level (L-low, M-mid, H-high) (N-normal, for peaking units only) | | | | L,M,H,N | 1 | A1 |
| | | 34 | Average reference method flow rate during reference flow RATA | | | scfh | | 10 | I10 |
| | | 44 | Reference flow/load ratio | | | | | 6 | F6.2 |
| | | 50 | Average hourly heat input rate during RATA | | | mmBtu/hr | | 7 | F7.1 |
| | | 57 | Reference gross heat rate (GHR) value | | | Btu/kw-hr, Btu/lb steam | | 6 | I6 |
| | | 63 | Separate reference ratios calculated for each multiple stack | | | | S | 1 | A1 |
| Total Record Length | | | | | | | 63 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-------|-----------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| FLOW/LOAD CHECKS | | | | | | | | | |
| Quarterly Flow-to-Load Ratio or Gross Heat Rate Check | 606 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Calendar quarter and year | | | QYYYY | 5 | I5 | |
| | | 18 | Test basis indicator (Q-flow-to-load ratio; H-gross heat rate) | | | | Q,H | 1 | A1 |
| | | 19 | Bias adjusted flow rates used (Y,N) | | | | Y,N | 1 | A1 |
| | | 20 | Average absolute % difference between reference ratio (or GHR) and hourly ratios (or GHR values), E_f | | | % | 0.0-100.0 | 5 | F5.1 |
| | | 25 | Result (P-pass, F-fail, <168 hours within $\pm 10\%$ of average load, E-<168 hours for data analysis after exempted hours removed) | | | | P,F,N,E | 1 | A1 |
| | | 26 | Number of hours used in quarterly flow-to-load or GHR analysis | | | hrs | | 4 | I4 |
| | | 30 | Number of hours excluded for different type of fuel | | | hrs | | 4 | I4 |
| | | 34 | Number of hours excluded for load ramping up or down | | | hrs | | 4 | I4 |
| | | 38 | Number of hours excluded for scrubber bypass | | | hrs | | 4 | I4 |
| | | 42 | Number of excluded hours preceding a normal load flow RATA | | | hrs | | 4 | I4 |
| 46 | Number of excluded hours preceding a successful diagnostic test, following a documented monitor repair, or following a major component replacement | | | hrs | | 4 | I4 | | |
| 50 | Number of hours excluded for flue gases discharging simultaneously through a main stack and bypass stack | | | hrs | | 4 | I4 | | |
| Total Record Length | | | | | | | 53 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | | |
|-------------------------|-------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|--------|-------------------------------|--------------|----|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | | |
| RATA/BIAS TESTS | | | | | | | | | | |
| RATA and Bias Test Data | 610 | 1 | Record type code | | | | 3 | I3 | | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | | |
| | | 13 | Run start date | | | YYMMDD | | 6 | I6 | |
| | | 19 | Run start time | | | HHMM | 0000-2359 | 4 | I4 | |
| | | 23 | Run end date | | | YYMMDD | | 6 | I6 | |
| | | 29 | Run end time | | | HHMM | 0000-2359 | 4 | I4 | |
| | | 33 | Units of measure (1-ppm, 2-lb/mmBtu, 3-scfh, 4-%CO ₂ , 5-%O ₂ , 6-mmBtu/hr (OTC NBP only), 7-%H ₂ O) | | | | | 1-7 | 1 | I1 |
| | | 34 | Value from CEM system being tested | | | | | | 13 | F13.3 |
| | | 47 | Value from reference method, adjusted as necessary for moisture and/or calibration bias | | | | | | 13 | F13.3 |
| | | 60 | Run number | | | | | | 2 | I2 |
| | | 62 | RATA run status flag 0 - RATA used, run not used 1 - run data used in calculating relative accuracy and bias 9 - test aborted | | | | | 0,1,9 | 1 | I1 |
| | | 63 | Operating level (L-low, M-mid, H-high) (Use N-normal for peaking units only) | | | | | L,M,H,N | 1 | A1 |
| | | 64 | Gross unit load or average velocity at operating level | | | | MWe, 1000 lbs/hr ft/sec | | 6 | I6 |
| 70 | Test number | | | | | | 2 | I2 | | |
| Total Record Length | | | | | | | 71 | | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|----------------------------|----------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-------------------------|---------|--------------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| RATA/BIAS TESTS | | | | | | | | | |
| RATA and Bias Test Results | 611 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | RATA end date | | YYMMDD | | 6 | I6 | |
| | | 19 | RATA end time | | HHMM | 0000-2359 | 4 | I4 | |
| | | 23 | Reference method used ⁵ | | | | 11 | A11 | |
| | | 34 | Units of measure (1-ppm, 2-lb/mmBtu, 3-scfh, 4-%CO ₂ , 5-%O ₂ , 6-mmBtu/hr, 7-%H ₂ O) | | | | 1-7 | 1 | I1 |
| | | 35 | Arithmetic mean of CEMS values | | | | 13 | F13.3 | |
| | | 48 | Arithmetic mean of reference method values | | | | 13 | F13.3 | |
| | | 61 | Arithmetic mean of the difference data | | | | 13 | F13.3 | |
| | | 74 | Standard deviation of difference data | | | | 13 | F13.3 | |
| | | 87 | Confidence coefficient | | | | 13 | F13.3 | |
| | | 100 | Relative accuracy | | | | 5 | F5.2 | |
| | | 105 | Tabulated t- value (bias test) | | | | 6 | F6.3 | |
| | | 111 | Bias adjustment factor at this load level | | | | 5 | F5.3 | |
| | | 116 | Operating level (L-low, M-mid, H-high) (Use N-normal, for peaking units only) | | | | L,M,H,N | 1 | A1 |
| | | 117 | Average gross unit load (MWe or steam) or average velocity at operating level | | | MWe, 1000 lbs/hr ft/sec | | 6 | I6 |
| | | 123 | [Reserved] | | | | | 4 | |
| | | 127 | Indication of normal load (or operating level) (N-normal, otherwise, blank) | | | | N | 1 | A1 |
| | | 128 | Alternative performance specification (APS) flag ⁶ | | | | 0,1 | 1 | I1 |
| 129 | Test number | | | | | 2 | I2 | | |
| 131 | Reason for RATA (C-initial cert, D-diagnostic, R-recert, Q-QA, G-grace period QA) | | | | C,D,R,Q, RQ,G,QD | 2 | A2 | | |
| 133 | Number of load (or operating) levels comprising test (1 for gas RATAs, 1-3 for flow or heat input RATAs) | | | | 1-3 | 1 | I1 | | |
| 134 | System bias adjustment factor for a multiple load (multiple level) flow RATA | | | | | 5 | F5.3 | | |
| Total Record Length | | | | | | | 138 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|-------------|-------|----------|---------------------------|-------------------|------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | | |
| RATA/BIAS TESTS | | | | | | | | | | |
| Reference Method Supporting Data for Flow RATA Tests (Methods 2, 2F, 2G, and 2H) Run Level Data | 614 | 1 | Record type code | | | | 3 | I3 | | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | | |
| | | 13 | Test number | | | | 2 | I2 | | |
| | | 15 | Operating level | | | | H,M,L,N | 1 | A1 | |
| | | 16 | Run number | | | | | 2 | I2 | |
| | | 18 | Run start date | | | YYYYMMDD | | 8 | I8 | |
| | | 26 | Run start time | | | HHMM | 0000-2359 | 4 | I4 | |
| | | 30 | Run end date | | | YYYYMMDD | | 8 | I8 | |
| | | 38 | Run end time | | | HHMM | 0000-2359 | 4 | I4 | |
| | | 42 | Flow rate reference method(s) used ⁵ | | | | 2F,2G, 2FH,2GH, M2H | 3 | A3 | |
| | | 45 | Number of traverse points | | | | | 2 | I2 | |
| | | 47 | P _{bar} , barometric pressure, in. Hg | | | | in. Hg | 5 | F5.2 | |
| | | 52 | P _g , stack static pressure, in. H ₂ O | | | | in. H ₂ O | 5 | F5.2 | |
| | | 57 | % CO ₂ in stack gas, dry basis | | | | % | 5 | F5.1 | |
| | | 62 | % O ₂ in stack gas, dry basis | | | | % | 5 | F5.1 | |
| | | 67 | CO ₂ and O ₂ reference method | | | | 3,3A | 4 | A4 | |
| | | 71 | % moisture in stack gas | | | | %H ₂ O | 5 | F5.1 | |
| | | 76 | M _d , stack gas molecular weight, dry basis | | | | lbs/lbs-mole | 5 | F5.2 | |
| | | 81 | M _s , stack gas molecular weight, wet basis | | | | lbs/lbs-mole | 5 | F5.2 | |
| | | 86 | Stack diameter at test port location | | | | ft | 5 | F5.2 | |
| | | 91 | A _{st} , stack or duct cross-sectional area at test port | | | | ft ² | 6 | F6.1 | |
| | | 97 | v _{st} , Average velocity for run, not accounting for wall effects | | | | ft/sec | 6 | F6.2 | |
| | | 103 | v _{st} , Average velocity for run, accounting for wall effects | | | | ft/sec | 6 | F6.2 | |
| | | 109 | Calculated wall effects adjustment factor (WAF) derived from this test run | | | | | 6 | F6.4 | |
| | | 115 | Calculated WAF applied to all runs of this RATA | | | | | ≥0.9700 | 6 | F6.4 |
| | | 121 | Default WAF applied to all runs of this RATA | | | | | 0.9900, 0.9950 | 6 | F6.4 |
| 127 | Average stack flow rate, wet basis, adjusted if applicable for wall effects | | | | scfh | | 10 | I10 | | |
| Total Record Length | | | | | | | 136 | | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------|-------------|---------|------------------|--------------------------------------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| RATA/BIAS TESTS | | | | | | | | | |
| Reference Method Supporting Data for Flow RATA Tests (Methods 2, 2F, 2G, and 2H) Traverse Point Level Data | 615 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Test number | | | | 2 | I2 | |
| | | 15 | Operating level | | | | L,M,H,N | 1 | A1 |
| | | 16 | Run number | | | | | 2 | I2 |
| | | 18 | Reference method probe type | | | | S,P,AS,DA, DAT,SPH | 4 | A4 |
| | | 22 | Probe ID | | | | | 11 | A11 |
| | | 33 | Pressure measurement device type | | | | MN,MG,ET | 2 | A2 |
| | | 35 | Method 1 traverse point ID | | | | | 3 | A3 |
| | | 38 | Probe or pitot tube velocity calibration coefficient | | | | | 5 | F5.3 |
| | | 43 | Date of latest probe or pitot tube calibration | | | | YYYYMMDD | 8 | I8 |
| | | 51 | Average velocity differential pressure at traverse point | | | | in. H ₂ O | 5 | F5.3 |
| | | 56 | Average of square roots of velocity differential pressures at traverse point | | | | (in H ₂ O) ^{1/2} | 5 | F5.3 |
| | | 61 | T _s , stack temperature at traverse point | | | | °F | 5 | F5.1 |
| | | 66 | Exterior Method 1 traverse point identifier | | | | W | 1 | A1 |
| | | 67 | Number of wall effects measurement points used to derive replacement velocity | | | | | 2 | I2 |
| 69 | Yaw angle of flow at traverse point | | | | degrees | -179.9 to +180.0 | 6 | F6.1 | |
| 75 | Pitch angle of flow at traverse point | | | | degrees | -179.9 to +180.0 | 6 | F6.1 | |
| 81 | Calculated velocity at traverse point, not accounting for wall effects | | | | ft/sec | | 6 | F6.2 | |
| 87 | Replacement velocity at traverse point, accounting for wall effects | | | | ft/sec | | 6 | F6.2 | |
| Total Record Length | | | | | | | 92 | | |
| Reference Method Supporting Data for Flow RATA Tests (Method 2 and 2H, default WAF only) | 616 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Test number | | | | 2 | I2 | |
| | | 15 | Operating level | | | | L,M,H,N | 1 | A1 |
| | | 16 | RATA end date | | | | YYYYMMDD | 8 | I8 |
| | | 24 | RATA end time | | | | HHMM | 0000-2359 | 4 |
| 28 | Default wall effects adjustment factor used | | | | | 0.9900, 0.9950 | 6 | F6.4 | |
| Total Record Length | | | | | | | 33 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|------------------------------------------------|-----------|-----------|------------------------------------|-------------|-------|----------|---------------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| Reference Method Supporting Data for Method 2J | 617 | 1 | Record Type Code | | | 617 | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring System ID | | | | 3 | A3 | |
| | | 13 | Test Number | | | 1-99 | 2 | I2 | |
| | | 15 | Operating Level | | | L, M, H | 1 | A1 | |
| | | 16 | RATA End Date | | | YYYYMMDD | 2 | 8 | |
| | | 24 | RATA End Time | | | HHMM | 4 | I4 | |
| | | 28 | Number of Method 1 Traverse Points | | | | 12-99 | 2 | I2 |
| | | 30 | Wall Effects Adjustment Factor | | | | 0.0001-0.9999 | 6 | F6.4 |
| Total Record Length | | | | | | | 35 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|------------------------------------------------------|-----------|-----------|------------------------------------------------------------------------|-------------|-------|--------|------------|--------------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| CYCLE TIME TEST | | | | | | | | | |
| Cycle Time Test Data and Results | 621 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | | YYMMDD | | 6 | I6 |
| | | 22 | Start time | | | HHMM | 0000-2359 | 4 | I4 |
| | | 26 | End time | | | HHMM | 0000-2359 | 4 | I4 |
| | | 30 | Component cycle time | | | min | | 2 | I2 |
| | | 32 | Stable starting monitor value | | | | | 13 | F13.3 |
| | | 45 | Stable ending monitor value | | | | | 13 | F13.3 |
| | | 58 | Calibration gas value | | | | | 13 | F13.3 |
| | | 71 | Calibration gas level (Z-zero, H-high) | | | | Z,H | 1 | A1 |
| | | 72 | Total or system cycle time ²⁴ | | | min | | 2 | I2 |
| | | 74 | Reason for test (C-initial cert, D-diagnostic, R-recert) | | | | C,D,R | 2 | A2 |
| | | 76 | Test number | | | | | 2 | I2 |
| Total Record Length | | | | | | | 77 | | |
| ON LINE/OFF LINE CALIBRATION DEMONSTRATION | | | | | | | | | |
| Qualifying Test for Off-line Calibration Error Tests | 623 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Date | | | YYMMDD | | 6 | I6 |
| | | 22 | Hour | | | HH | 00-23 | 2 | I2 |
| | | 24 | Instrument span | | | | | 13 | F13.3 |
| | | 37 | Reference value | | | | | 13 | F13.3 |
| | | 50 | Measured value | | | | | 13 | F13.3 |
| | | 63 | Results (CE or R-A) | | | % ppm | 0.00-100.0 | 5 | F5.1 |
| | | 68 | Alternative specification flag ³ | | | | 0,1 | 1 | I1 |
| | | 69 | [Reserved] | | | | | 2 | |
| | | 71 | Calibration gas or reference signal level (Z-zero, M-mid, H-high) | | | | Z,M,H | 1 | A1 |
| | | 72 | Span scale (H-high, L-low) | | | | H,L | 1 | A1 |
| | | 73 | Off-line/On-line indicator (OFF-unit not operating, ON-unit operating) | | | | ON,OFF | 3 | A3 |
| | | 76 | Reason for test (C-initial demonstration, D-diagnostic) | | | | C,D | 1 | A1 |
| | | 77 | Test number | | | | | 2 | I2 |
| Total Record Length | | | | | | | 78 | | |

(cont.)

²⁴ For NO_x and SO₂ emission rate (lb/mmBtu) systems, report the longer cycle time of the two component analyzers as the system cycle time.

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | |
|--------------------------------------------------------------------|-----------|-----------|-----------------------------------------------------------------------------------------|-------------|----------|-------------------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| MISCELLANEOUS QA TEST/ACTIVITY | | | | | | | | |
| Other QA Activities | 624 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack/Pipe ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Parameter | | | | 4 | A4 |
| | | 20 | Activity/test completion date | | YYYYMMDD | | 8 | I8 |
| | | 28 | Activity/test completion hour | | HH | 00-23 | 2 | I2 |
| | | 30 | QA test activity description | | | | 20 | A20 |
| | | 50 | Test result (P-pass, F-fail) | | | P,F | 1 | A1 |
| | | 51 | Reason for test (C-initial cert, D-diagnostic, R-recert, Q-QA) | | | C,D,R,Q,RQ | 2 | A2 |
| | | 53 | QA test code | | | 01,02,03,04,05,99 | 2 | I2 |
| Total Record Length | | | | | | | 54 | |
| FUEL FLOWMETER ACCURACY CHECKS | | | | | | | | |
| Fuel Flowmeter Accuracy Test | 627 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Test completion date | | YYYYMMDD | | 8 | I8 |
| | | 24 | Test completion hour | | HH | | 2 | I2 |
| | | 26 | Reinstallation date | | YYYYMMDD | | 8 | I8 |
| | | 34 | Reinstallation hour | | HH | | 2 | I2 |
| | | 36 | Accuracy at low fuel flowrate (% of URV) | | % | | 5 | F5.1 |
| | | 41 | Highest accuracy at mid fuel flowrate (% of URV) | | % | | 5 | F5.1 |
| | | 46 | Accuracy at high fuel flowrate (% of URV) | | % | | 5 | F5.1 |
| | | 51 | Test method (L-lab comparison to reference meter, I-in-line comparison to master meter) | | | I,L | 1 | A1 |
| | | 52 | Test result (A-aborted, P-pass, F-fail) | | | A,P,F | 1 | A1 |
| | | 53 | Test number | | | | 2 | I2 |
| Total Record Length | | | | | | | 54 | |
| Accuracy Test for Orifice, Nozzle, or Venturi Type Fuel Flowmeters | 628 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Component ID | | | | 3 | A3 |
| | | 13 | Monitoring system ID | | | | 3 | A3 |
| | | 16 | Test completion date | | YYYYMMDD | | 8 | I8 |
| | | 24 | Test completion hour | | HH | | 2 | I2 |
| | | 26 | Accuracy determination at low level ²⁵ | | % | | 5 | F5.1 |
| | | 31 | Accuracy determination methodology for low level ⁵ | | | | 4 | A4 |
| | | 35 | Highest accuracy determination at mid level ²⁵ | | % | | 5 | F5.1 |
| | | 40 | Accuracy determination methodology for mid level ⁵ | | | | 4 | A4 |
| | | 44 | Accuracy determination at high level ²⁵ | | % | | 5 | F5.1 |
| | | 49 | Accuracy determination methodology for high level ⁵ | | | | 4 | A4 |
| | | 53 | Test result (A-aborted, P-pass, F-fail) | | | A,P,F | 1 | A1 |
| | | 54 | Test number | | | | 2 | I2 |
| Total Record Length | | | | | | | 55 | |

(cont.)

²⁵ Report either: (1) the highest individual accuracy of any of the three transmitters; or (2) the sum of the three transmitter accuracies; or (3) the total fuel flowmeter accuracy calculated according to AGA3 part 1, "General Equations and Uncertainty Guidelines."

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|----------|-----------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| QUARTERLY FUEL FLOW-TO-LOAD ANALYSIS | | | | | | | | | |
| Baseline Data for Fuel-Flow-to-Load Ratio or Gross Heat Rate Check for Fuel Flowmeters | 629 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Completion date of most recent primary element inspection | | YYYYMMDD | | 8 | 18 | |
| | | 21 | Completion hour of most recent primary element inspection | | HH | | 2 | 12 | |
| | | 23 | Completion date of most recent flowmeter or transmitter accuracy test | | YYYYMMDD | | 8 | 18 | |
| | | 31 | Completion hour of most recent flowmeter or transmitter accuracy test | | HH | | 2 | 12 | |
| | | 33 | Beginning date of baseline period | | YYYYMMDD | | 8 | 18 | |
| | | 41 | Beginning hour of baseline period | | HH | | 2 | 12 | |
| | | 43 | Completion date of baseline period | | YYYYMMDD | | 8 | 18 | |
| | | 51 | Completion hour of baseline period | | HH | | 2 | 12 | |
| | | 53 | Average fuel flow rate (100 scfh for gas and lb/hr for oil) | | | | 10 | F10.1 | |
| | | 63 | Average load (MWe or 1000 lb/stream/hr) | | | | 6 | I6 | |
| | | 69 | Baseline fuel-flow-to-load ratio | | | | 6 | F6.2 | |
| | | 75 | Units of fuel-flow-to-load (1-100scfh/MWe, 2-100scfh/klb per hour steam, 3-(lb/hr)/MWe, 4-(lb/hr)/klb per hour steam load, 5-(gal/hr)/MWe, 6-(gal/hr)/klb per hour steam load) | | | | 1-6 | 1 | I1 |
| | | 76 | Average hourly heat input rate | | | mmBtu/hr | | 7 | F7.1 |
| | | 83 | Baseline GHR | | | | | 6 | I6 |
| | | 89 | Units of baseline GHR (1 - Btu/kwh, 2 - Btu/lb steam) | | | | 1-2 | 1 | I1 |
| | | 90 | Number of hours excluded due to co-firing or combustion of a different type of fuel | | | hrs | | 3 | I3 |
| | | 93 | Number of hours excluded due to ramping | | | hrs | | 3 | I3 |
| 96 | Number of excluded hours in lower 25% of range of operation | | | hrs | | 3 | I3 | | |
| 99 | Flag indicating baseline data collection is in progress and that < 4 calendar quarters have elapsed since quarter of the last flowmeter QA test | | | | B | 1 | A1 | | |
| Total Record Length | | | | | | | 99 | | |
| Quarterly Fuel-Flow-to-Load Test for Fuel Flowmeters | 630 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Component ID | | | | 3 | A3 | |
| | | 16 | Calendar quarter and year | | QYYYY | | 5 | I5 | |
| | | 21 | Test basis indicator (Q-flow-to-load ratio, H-gross heat rate) | | | | Q,H | 1 | A1 |
| | | 22 | Quarterly average absolute % difference between baseline ratio (or baseline GHR) and hourly quarterly ratios (or GHR values), E _r | | | % | 0.0-100.0 | 5 | F5.1 |
| | | 27 | Result (P-pass, F-fail, <168 hours data, E-<168 hours of data after exemptions removed, B-baseline data collection in progress) | | | | P,F,N,E,B | 1 | A1 |
| | | 28 | Number of hours used in the quarterly data analysis | | | hrs | | 4 | I4 |
| | | 32 | Number of hours excluded due to co-firing or combustion of a different type of fuel | | | hrs | | 4 | I4 |
| | | 36 | Number of hours excluded due to ramping | | | hrs | | 4 | I4 |
| 40 | Number of excluded hours in lower 25% of range of operation | | | hrs | | 4 | I4 | | |
| Total Record Length | | | | | | | 43 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | | |
|------------------------------------------------------|-----------|-----------|---------------------------------------------------------------------------------|-------------|-------|--------|--------|--------------|-------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | | |
| ALTERNATIVE MONITORING PETITION DATA | | | | | | | | | | |
| Alternative Monitoring System Approval Petition Data | 640 | 1 | Record type code | | | | 3 | I3 | | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | | |
| | | 10 | Component ID | | | | 3 | A3 | | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | | |
| | | 16 | AMS ID | | | | 6 | A6 | | |
| | | 22 | Date | | | YYMMDD | | 6 | I6 | |
| | | 28 | Hour | | | HH | 00-23 | 2 | I2 | |
| | | 30 | Hourly test data for alternative monitoring system | | | | | 13 | F13.3 | |
| | | 43 | Hourly lognormalized test data for alternative monitoring system | | | | | 13 | F13.3 | |
| | | 56 | Hourly test data for reference CEMS | | | | | 13 | F13.3 | |
| | | 69 | Fuel type code | | | | | 2 | I2 | |
| | | 71 | Operating level (L-low, M-mid, H-high) (Use N-normal for peaking units only) | | | | | L,M,H,N | 1 | A1 |
| | | 72 | Gross unit load | | | | MWe | | 6 | I6 |
| Total Record Length | | | | | | | 77 | | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | | |
|------------------------------------------------------------------------|-----------|---------------------|-----------------------------------------------------------------------------------------------------------------------|-------------|-------|-------|--------|--------------|-------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | | |
| ALTERNATIVE MONITORING PETITION DATA | | | | | | | | | | |
| Alternative Monitoring System Approval Petition Results and Statistics | 641 | 1 | Record type code | | | | 3 | I3 | | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | | |
| | | 10 | Component ID | | | | 3 | A3 | | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | | |
| | | 16 | Unit of measure (1-ppm, 2-lb/mmBtu, 3-scfh, 4-%CO ₂ , 5-%O ₂ , 6-mmBtu/hr, 7-%H ₂ O) | | | | 1-7 | 1 | A1 | |
| | | 17 | Arithmetic mean of AMS values | | | | | 13 | F13.3 | |
| | | 30 | Arithmetic mean of CEM values | | | | | 13 | F13.3 | |
| | | 43 | Arithmetic mean of differences of paired AMS and CEM values | | | | | 13 | F13.3 | |
| | | 56 | Variance of differences | | | | | 13 | F13.3 | |
| | | 69 | Variance of measured values of AMS | | | | | 13 | F13.3 | |
| | | 82 | Variance of measured values for CEM | | | | | 13 | F13.3 | |
| | | 95 | F-statistic | | | | | 13 | F13.3 | |
| | | 108 | Critical value of F at 95% confidence level for sample size | | | | | 13 | F13.3 | |
| | | 121 | Coefficient of correlation (Pearson's r) of CEM and AMS data | | | | | 13 | F13.3 | |
| | | 134 | Shapiro-Wilk test statistic (W) for AMS data | | | | | 13 | F13.3 | |
| | | 147 | Shapiro-Wilk test statistic (W) for CEMS data | | | | | 13 | F13.3 | |
| | | 160 | Lognormally adjusted data used in final analysis (1=yes, 0=no) | | | | | 0,1 | 1 | II |
| | | 161 | Autocorrelation coefficient (ρ) for AMS data | | | | | | 13 | F13.3 |
| | | 174 | Autocorrelation coefficient (ρ) for CEM data | | | | | | 13 | F13.3 |
| | | 187 | Autocorrelation coefficient (ρ) for differences of paired AMS and CEM data | | | | | | 13 | F13.3 |
| | | 200 | Adjustment for autocorrelation used in final analysis (1=yes, 0=no) | | | | | 0,1 | 1 | II |
| | | 201 | Covariance of alternative monitoring data and associated lag(1) values | | | | | | 13 | F13.3 |
| | | 214 | Covariance of continuous emission monitoring data and associated lag(1) values | | | | | | 13 | F13.3 |
| | | 227 | Covariance of differences of paired AMS and CEM data | | | | | | 13 | F13.3 |
| | | 240 | Standard deviation of AMS data | | | | | | 13 | F13.3 |
| | | 253 | Standard deviation of CEM data | | | | | | 13 | F13.3 |
| | | 266 | Standard deviation of differences of paired AMS and CEM data | | | | | | 13 | F13.3 |
| | | 279 | Standard deviation of lag(1) AMS data | | | | | | 13 | F13.3 |
| | | 292 | Standard deviation of lag(1) CEM data | | | | | | 13 | F13.3 |
| | | 305 | Standard deviation of lag(1) differences of paired AMS and CEM data | | | | | | 13 | F13.3 |
| | | 318 | Variance inflation factor for AMS data | | | | | | 13 | F13.3 |
| | | 331 | Variance inflation factor for CEM data | | | | | | 13 | F13.3 |
| | | 344 | Variance inflation factor for difference of paired AMS and CEM data | | | | | | 13 | F13.3 |
| | | Total Record Length | | | | | | | 356 | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|-------------------------------------------------------------------|-----------------------------------------|-----------|-------------------------------------------------------------------------------------|-------------|-------|-------|--------|--------------|------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| LOW MASS EMISSIONS CERTIFICATION DATA | | | | | | | | | |
| Qualifying Data for Low Mass Emissions Units Excepted Methodology | 645 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit ID | | | | 6 | A6 | |
| | | 10 | Calendar year of application | | | YYYY | | 4 | I4 |
| | | 14 | Type of qualification | | | | YR,OS | 2 | A2 |
| | | 16 | Year 1 | | | YYYY | | 4 | I4 |
| | | 20 | Annual or OS measured/projected/estimated NO _x mass emissions for Year 1 | | | ton | | 4 | F4.1 |
| | | 24 | [Reserved] | | | | | 4 | |
| | | 28 | Annual measured/projected/estimated SO ₂ mass emissions for Year 1 | ARP only | | ton | | 4 | F4.1 |
| | | 32 | [Reserved] | ARP only | | | | 4 | |
| | | 36 | Annual or OS operating hours for Year 1 | | | hrs | | 4 | I4 |
| | | 40 | Year 2 | | | YYYY | | 4 | I4 |
| | | 44 | Annual or OS measured/projected/estimated NO _x mass emissions for Year 2 | | | ton | | 4 | F4.1 |
| | | 48 | [Reserved] | | | | | 4 | |
| | | 52 | Measured/projected/estimated SO ₂ mass emissions for Year 2 | ARP only | | ton | | 4 | F4.1 |
| | | 56 | [Reserved] | | | | | 4 | |
| | | 60 | Annual or OS operating hours for Year 2 | | | hrs | | 4 | I4 |
| | | 64 | Year 3 | | | YYYY | | 4 | I4 |
| | | 68 | Annual or OS measured/projected/estimated NO _x mass emissions for Year 3 | | | ton | | 4 | F4.1 |
| | | 72 | [Reserved] | | | | | 4 | |
| | | 76 | Measured/projected/estimated SO ₂ mass emissions for Year 3 | ARP only | | ton | | 4 | F4.1 |
| 80 | [Reserved] | | | | | 4 | | | |
| 84 | Annual or OS operating hours for Year 3 | | | hrs | | 4 | I4 | | |
| Total Record Length | | | | | | | 87 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | |
|---------------------------------------------------------------------|------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------|-----------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| APPENDIX E AND UNIT SPECIFIC DEFAULT EMISSION RATE TEST DATA | | | | | | | | |
| NO _x Emission Rate Correlation Test Data | 650 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Monitoring system ID for Appendix E NO _x system | Appendix E only | | | 3 | A3 |
| | | 13 | Reference method run start date | | YYMMDD | | 6 | I6 |
| | | 19 | Reference method run start time | | HHMM | 0000-2359 | 4 | I4 |
| | | 23 | Reference method run end date | | YYMMDD | | 6 | I6 |
| | | 29 | Reference method run end time | | HHMM | 0000-2359 | 4 | I4 |
| | | 33 | Reference method response time | | sec | 0-800 | 3 | I3 |
| | | 36 | Value from reference method during run | | lb/mmBtu | | 8 | F8.3 |
| | | 44 | Run number | | | | 2 | I2 |
| | | 46 | Operating level (1-lowest) | | | 1-99 | 2 | I2 |
| | | 48 | Type of fuel combusted ⁵ | | | | 1 | A1 |
| | | 49 | Total heat input during the run | | mmBtu | | 7 | F7.1 |
| | | 56 | [Reserved] | | | | 3 | |
| | | 59 | Hourly heat input rate during run | | mmBtu/hr | | 7 | F7.1 |
| | | 66 | Test number | | | | 2 | I2 |
| | | 68 | Flag to indicate this run used to calculate highest 3-run NO _x emission rate average at any tested load level | | LME unit default testing only | | H | 1 |
| 69 | NO _x default rate (Highest 3-run average) | | LME unit default testing only | lb/mmBtu | | 6 | F6.3 | |
| 75 | Base-load or Peak-load test | | LME unit default testing only | | B, P, A | 1 | A1 | |
| 76 | NO _x default rate for peak load hours | | LME unit default testing only | | | 6 | F6.3 | |
| Total Record Length | | | | | | | 81 | |
| NO _x Emission Rate Correlation Results | 651 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Monitoring system ID for Appendix E NO _x system | | | | 3 | A3 |
| | | 13 | Completion date of last run in level | | YYMMDD | | 6 | I6 |
| | | 19 | Completion time of last run in level | | HHMM | 0000-2359 | 4 | I4 |
| | | 23 | Arithmetic mean of reference method values at this level | | lb/mmBtu | | 8 | F8.3 |
| | | 31 | F-factor converting NO _x concentrations to emission rates | | | | 10 | F10.1 |
| | | 41 | Average heat input rate at this level | | mmBtu/hr | | 7 | F7.1 |
| | | 48 | Operating level (1-lowest) | | | 1-99 | 2 | I2 |
| | | 50 | Type of fuel combusted ⁵ | | | | 1 | A1 |
| 51 | Test number | | | | 2 | I2 | | |
| Total Record Length | | | | | | | 52 | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|---------------------------------------------------------------------|---------------------------------------|-----------|--------------------------------------------------------------------|-------------|----------|-------------|--------|--------------|-------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| APPENDIX E AND UNIT SPECIFIC DEFAULT EMISSION RATE TEST DATA | | | | | | | | | |
| Heat Input from Oil Combusted During Test | 652 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID for oil fuel flow system | | | | 3 | A3 | |
| | | 13 | Run start date | | YYMMDD | | 6 | I6 | |
| | | 19 | Run start time | | HHMM | 0000-2359 | 4 | I4 | |
| | | 23 | Run end date | | YYMMDD | | 6 | I6 | |
| | | 29 | Run end time | | HHMM | | 4 | I4 | |
| | | 33 | Run number | | | | 2 | I2 | |
| | | 35 | Mass of oil combusted during run | | | lb | | 10 | F10.1 |
| | | 45 | Gross calorific value (GCV) of oil | | | | | 10 | F10.1 |
| | | 55 | Heat input from oil during run | | | mmBtu | | 7 | F7.1 |
| | | 62 | Volume of oil combusted during run | | | | | 10 | F10.1 |
| | | 72 | Units of measure for oil flow ⁵ | | | | | 5 | A5 |
| | | 77 | Density of oil | | | | | 8 | F8.6 |
| | | 85 | Units of measure for density of oil ⁵ | | | | | 5 | A5 |
| | | 90 | Test number | | | | | 2 | I2 |
| 92 | Units of measure for GCV ⁵ | | | | | 6 | A6 | | |
| Total Record Length | | | | | | | 97 | | |
| Heat Input from Gas Combusted During Test | 653 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID for gas fuel flow system | | | | 3 | A3 | |
| | | 13 | Run start date | | YYMMDD | | 6 | I6 | |
| | | 19 | Run start time | | HHMM | 0000-2359 | 4 | I4 | |
| | | 23 | Run end date | | YYMMDD | | 6 | I6 | |
| | | 29 | Run end time | | HHMM | 0000-2359 | 4 | I4 | |
| | | 33 | Volume of gas combusted during run | | | 100 scf | | 10 | F10.1 |
| | | 43 | Gross calorific value (GCV) of gas | | | Btu/100 scf | | 10 | F10.1 |
| | | 53 | Heat input from gas during run | | | mmBtu | | 7 | F7.1 |
| 60 | Test number | | | | | 2 | I2 | | |
| Total Record Length | | | | | | | 61 | | |
| Unit Group Testing LME Only | 660 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Group ID | | | | 8 | A8 | |
| | | 12 | ORIS code or facility ID | | | | 6 | I6 | |
| | | 18 | Plant name | | | | 20 | A20 | |
| | | 38 | Unit ID | | | | 6 | A6 | |
| | | 44 | Test status (AE-App. E testing performed, NT-no testing performed) | | | | AE, NT | 2 | A2 |
| | | 46 | Test date for unit (blank, if not tested) | | YYYYMMDD | | | 8 | I8 |
| | | 54 | Default rate from identical unit testing (if applicable) | | | lb/mmBtu | | 6 | F6.3 |
| | | 60 | [Reserved] | | | | | 2 | |
| | | 62 | Type of fuel ⁵ | | | | | 1 | A1 |
| | | 63 | [Reserved] | | | | | 3 | |
| 66 | Base/Peak Load Indicator | | | | B, P | 1 | A1 | | |
| Total Record Length | | | | | | | 66 | | |

(cont.)

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | |
|---------------------------------------------|-----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|---------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| QA TEST EXTENSIONS/EXEMPTION CLAIMS | | | | | | | | |
| Single-load or Single-level Flow RATA Claim | 695 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Stack ID | | | | 6 | A6 |
| | | 10 | Monitoring system ID | | | | 3 | A3 |
| | | 13 | End date of last annual flow RATA | | YYYYMMDD | | 8 | I8 |
| | | 21 | End date of historical load data collection period | | YYYYMMDD | | 8 | I8 |
| | | 29 | Historical % usage of low load or operating level ($\leq 30.0\%$ of range of operation) in the load data collection period | | % | 0-100.0 | 5 | F5.1 |
| | | 34 | Historical % usage of mid load or operating level (>30.0 through 60.0% of range of operation) in the load data collection period | | % | 0-100.0 | 5 | F5.1 |
| | | 39 | Historical % usage of high load or operating level ($>60.0\%$ of range of operation) in the load data collection period | | % | 0-100.0 | 5 | F5.1 |
| | | 44 | Load or operating level for the single-load (or single-level) flow RATA | | | L,M,H | 1 | A1 |
| Total Record Length | | | | | | | 44 | |
| Fuel Flowmeter Accuracy Test Extension | 696 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Unit/Pipe ID | | | | 6 | A6 |
| | | 10 | Monitoring system ID | | | | 3 | A3 |
| | | 13 | Date of last accuracy test | | YYYYMMDD | | 8 | I8 |
| | | 21 | Accuracy test expiration date without extension | | YYYYMMDD | | 8 | I8 |
| | | 29 | Accuracy test expiration date with extension | | YYYYMMDD | | 8 | I8 |
| | | 37 | Type of extension ²⁶ | | | 1-5 | 2 | I2 |
| | | 39 | Quarter and year | | QYYYY | | 5 | A5 |
| Total Record Length | | | | | | | 43 | |

(cont.)

- ²⁶ Limited to table of codes:
- 1 Accuracy test extension (reporting quarter does not qualify as a "fuel flowmeter QA operating quarter")
 - 2 Accuracy test extension based on successful fuel flow-to-load ratio or GHR test
 - 3 Accuracy test extension based on ongoing baseline data collection for fuel-to-load ratio or GHR test
 - 4 Extension claimed because fewer than 168 hours of fuel flowmeter data remained for fuel flow-to-load ratio analysis, after allowable data exclusions were taken under Section 2.1.7.3 of Appendix D
 - 5 Extension for first or fourth calendar quarter for ozone season reporter using fuel flow-to-load test

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|--------------------------------------|------------------|-----------|--------------------------------------------------------------------------------------------------------|-------------|----------|-------|--------|--------------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| RATA Deadline Extension or Exemption | 697 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Monitoring system ID | | | | 3 | A3 | |
| | | 13 | Date of last RATA | | YYYYMMDD | | 8 | I8 | |
| | | 21 | RATA expiration date without extension | | YYYYMMDD | | 8 | I8 | |
| | | 29 | RATA expiration date with extension | | YYYYMMDD | | 8 | I8 | |
| | | 37 | Type of RATA extension or exemption claimed or lost ²⁷ | | | | 1-9 | 2 | I2 |
| | | 39 | Year-to-date usage of fuel with sulfur content higher than very low sulfur fuel (as defined in § 72.2) | | | hrs | | 4 | I4 |
| | | 43 | Year-to-date hours of regular non-redundant back-up CEMS use at this unit/stack | | | hrs | | 4 | I4 |
| 47 | Quarter and year | | | QYYYY | | 5 | A5 | | |
| Total Record Length | | | | | | | 51 | | |
| QA TEST EXTENSIONS/EXEMPTION CLAIMS | | | | | | | | | |
| Quarterly QA Test Exemption Claim | 698 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Basis for exemption ²⁸ | | | | 1-9 | 1 | I1 |
| | | 17 | Type of test | | | | F,K,L | 1 | A1 |
| | | 18 | Quarter and year | | | QYYYY | | 5 | I5 |
| | | 23 | Span scale | | | | L,H | 1 | A1 |
| Total Record Length | | | | | | | 23 | | |

(cont.)

- ²⁷ Limited to table of codes:
- 1 RATA deadline extension claimed for the monitoring system identified in RT 697/10. Unit/stack operated for fewer than 168 hours this quarter
 - 2 SO₂ RATA deadline extension claimed. Only very low sulfur fuel (as defined in § 72.2) was combusted this quarter
 - 3 Ongoing SO₂ RATA exemption claimed. Only very low sulfur fuel (as defined in § 72.2) was combusted this quarter
 - 4 Conditional SO₂ RATA exemption claimed. Year-to-date usage of fuel with a higher sulfur content than 'very low sulfur' fuel (as defined in § 72.2) is ≤ 480 hours
 - 5 Conditional RATA exemption claimed. Year-to-date usage of a regular (B) non-redundant backup monitoring system at this unit/stack is < 720 hours and less than 8 full quarters have elapsed since last RATA
 - 6 Ongoing SO₂ RATA exemption lost. Fuel with a higher sulfur content than very low sulfur fuel (as defined in § 72.2) was combusted this quarter
 - 7 Conditional SO₂ RATA exemption lost. Year-to-date usage of fuel with a higher sulfur content than very low sulfur fuel (as defined in § 72.2) has exceeded 480 hours
 - 8 Conditional RATA exemption lost. Year-to-date usage of a regular non-redundant backup monitoring system has exceeded 720 hours at this unit or stack
 - 9 Exemption From Performing Single-Load RATA at Normal Load. An EPA-approved exemption from performing a required single-load RATA at a normal load is claimed

- ²⁸
- 1 Exemption for fewer than 168 unit/stack operating hours in quarter or reporting period
 - 2 Linearity exemption analyzer range not used during calendar quarter (dual span only)
 - 3 Flow-to-load test exemptions approved by petition under §75.66 and Section 7.8 of Appendix A
 - 4 Linearity exemption for SO₂ or NO_x analyzer span value ≤ 30 ppm

TABLE 4: CERTIFICATION TEST DATA AND RESULTS

| CERTIFICATION TEST DATA | | | | | | | | | |
|-----------------------------------------------|-----------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------|-------------|-------|----------|--------|--------------|----|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | FIELD NOTES | UNITS | RANGE | LENGTH | FORMAT (FTN) | |
| QA Test Extension Claim Based on Grace Period | 699 | 1 | Record type code | | | | 3 | I3 | |
| | | 4 | Unit/Stack ID | | | | 6 | A6 | |
| | | 10 | Component ID | | | | 3 | A3 | |
| | | 13 | Monitoring system ID | | | | 3 | A3 | |
| | | 16 | Type of test (K-Leak Test, L-linearity, R-RATA) | | | | K,L,R | 1 | A1 |
| | | 17 | Beginning of grace period | | | YYYYMMDD | | 8 | I8 |
| | | 25 | Date of completion of required QA test | | | YYYYMMDD | | 8 | I8 |
| | | 33 | Hour of completion of required QA test | | | HH | 00-23 | 2 | I2 |
| | | 35 | Number of unit/stack operating hours from beginning of grace period to completion of QA test or maximum allowable grace period | | | hrs | | 3 | I3 |
| | | 38 | Date of end of grace period | | | YYYYMMDD | | 8 | I8 |
| 46 | Hour of end of grace period | | | HH | 00-23 | 2 | I2 | | |
| Total Record Length | | | | | | | 47 | | |

TABLE 5: COMPLIANCE CERTIFICATION DATA

| CERTIFICATION INFORMATION | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------------------------------------------------------------------------|---------|-------|--------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | PROGRAM | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| CERTIFICATION DATA | | | | | | | | |
| Part 75 Certification Statement and Designated Representative Signature ARP Only | 900 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Electronic representation of Part 75 certification statements ²⁹ | | | | 18 | A18 |
| | | 22 | DR last name | | | | 25 | A25 |
| | | 47 | DR first name | | | | 15 | A15 |
| | | 62 | DR middle initial | | | | 2 | A2 |
| | | 64 | Date of signature | | | YYMMDD | 6 | I6 |
| | | 70 | Title (DR or ADR) | | | DR,ADR | 3 | A3 |
| Total Record Length | | | | | | | 72 | |
| Part 72 Certification Statement ARP Only | 901 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Certification statement line # | | | 1-12 | 2 | I2 |
| | | 6 | Certification text (see instructions for verbatim text) | | | | 67 | A67 |
| Total Record Length | | | | | | | 72 | |
| Cover Letter Text (file- specific) (Optional) | 910 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Cover letter text, file-specific (see instructions) | | | | 69 | A69 |
| Total Record Length | | | | | | | 72 | |
| Cover Letter Text (not specific to file) (Optional) | 920 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Other cover letter text, not file-specific (see instructions) | | | | 69 | A69 |
| Total Record Length | | | | | | | 72 | |

(cont.)

²⁹ The code for this data element is either "CERTIFY", "CERTIFY CONTROLLED", or "CERTIFY DEFERRED".

"CERTIFY" means:

"I understand that EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.2, as required by 40 CFR 75.64.

I certify that all data submitted in this report were recorded in accordance with the applicable requirements of 40 CFR Part 75, and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

"CERTIFY CONTROLLED" means:

"I certify that for all hours in which data are submitted following the provisions of 75.34(a)(a) that the add-on emission controls were operating within the range of parameters listed in the monitoring plan and that the substitute values recorded during the quarter do not systematically underestimate SO₂ or other emissions, pursuant to § 75.34.

I understand that EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.2, as required by 40 CFR 75.64.

I certify that all data submitted in this report were recorded in accordance with the applicable requirements of 40 CFR Part 75, and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

"CERTIFY DEFERRED" means:

"I understand that for non-operating, affected unit(s) that are not yet certified under 40 CFR 75.4, this electronic report does not have to be generated by a Data Acquisition and Handling System.

I certify that one or more of the affected units identified in this electronic report did not operate and did not generate any SO₂, NO_x, or CO₂ emissions during the reporting period specified in the quarterly submission."

TABLE 5: COMPLIANCE CERTIFICATION DATA

| CERTIFICATION INFORMATION | | | | | | | | |
|---------------------------------------------------------------------------------------------------|----------------|-----------|----------------------------------------------------------------------------------------------------|---------|-------|-------|--------|--------------|
| RECORD TYPE | TYPE CODE | START COL | DATA ELEMENT DESCRIPTION | PROGRAM | UNITS | RANGE | LENGTH | FORMAT (FTN) |
| Subpart H Certification Statement and NO _x Authorized Account Representative Signature | 940 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Electronic representation of NO _x Budget Program certification statements ³⁰ | | | | 18 | A18 |
| | | 22 | AAR last name | | | | 25 | A25 |
| | | 47 | AAR first name | | | | 15 | A15 |
| | | 62 | AAR middle initial | | | | 2 | A2 |
| | | 64 | Date of signature | | | | 6 | I6 |
| | | 70 | Title (AAR or AAAR) | | | | 4 | A4 |
| Total Record Length | | | | | | | 73 | |
| Subpart H General Certification Statement | 941 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | Certification statement line # | | | 1-11 | 2 | I2 |
| | | 6 | Certification text (ask State for verbatim text) | | | | 67 | A67 |
| Total Record Length | | | | | | | 72 | |
| Contact Person Record (Optional) | 999 | 1 | Record type code | | | | 3 | I3 |
| | | 4 | First name | | | | 10 | A10 |
| | | 14 | Last name | | | | 15 | A15 |
| | | 29 | Role/Position of contact person | | | | 20 | A20 |
| | | 49 | Company | | | | 20 | A20 |
| | | 69 | DR indicator flag (D-DR/ADR/AAR/AAAR, N-Other) | | | D,N | 1 | A1 |
| | | 70 | Phone # | | | | 10 | I10 |
| | | 80 | Fax # | | | | 10 | I10 |
| 90 | E-mail address | | | | 75 | A75 | | |
| Total Record Length | | | | | | | 164 | |

³⁰ The code for this data element is either "CERTIFY", "CERTIFY CONTROLLED", or "CERTIFY DEFERRED".

Unless otherwise specified by State requirements, "CERTIFY" means:

"I understand that the State or EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.2.

I certify that all data submitted in this report were recorded in accordance with Part 75 and any applicable State requirements and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

Unless otherwise specified by State requirements, "CERTIFY CONTROLLED" means:

"I certify that for all hours in which data are substituted that the add-on emission controls were operating within the range of parameters listed in the monitoring plan and that the substitute values recorded during the quarter do not systematically underestimate emissions.

I understand that the State or EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.2.

I certify that all data submitted in this report were recorded in accordance with Part 75 and any applicable State requirements and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

Unless otherwise specified by State requirements, "CERTIFY DEFERRED" means:

"I understand that for non-operating, affected unit(s) that are not yet certified under Part 75 and applicable State regulations, this electronic report does not have to be generated by a Data Acquisition and Handling System.

I certify that one or more of the affected units identified in this electronic report did not operate and did not generate any NO_x emissions during the reporting period specified in the submission."

Appendix A

Table A-1: Structural Differences Between EDR v2.1 and v2.2

| Record Type | Data Field Added | Description of New Data Field | Reason for Change | Change Affects Whom ? |
|--------------------|---------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 300 | 3-character alphanumeric field at column 64 | Type of fuel combusted during the hour | June 2002 rule allows the use of fuel-specific missing data substitution for units with CEMS | Units selecting the new fuel-specific CEMS missing data options in § 75.33 <u>and</u> units with unmonitored bypass stacks, reporting fuel-specific MPC or MER during bypass hours. |
| 360 | 1-character alphanumeric field at column 86 | Base Load or Peak Load Hour | June 2002 rule requires certain LME units to use separate NO _x default rate values for peak load and base load hours | LME combustion turbines that operate principally at base load or set point temperature but can operate at a higher peak load or higher internal operating temperature. |
| 504 | 1-character alphanumeric field at column 53 | Non load-based unit identifier | June 2002 rule extends the use of Part 75 monitoring to non load-based units | Non load-based units (e.g., cement kilns, process heaters) |
| 605 | 1-character alphanumeric field at column 63 | Separate reference ratios calculated for each multiple stack | June 2002 rule allows this alternative methodology for calculating flow-to-load reference ratio for multiple stacks | Units measuring stack flow in multiple stacks who elect to calculate separate flow-to-load reference ratios. |
| 650 | 1-character alphanumeric field at column 75 | Base-load or Peak-load test | June 2002 rule requires certain LME units to use separate NO _x default rate values for peak load and base load hours | LME combustion turbines that operate principally at base load or set point temperature but can operate at a higher peak load or higher internal operating temperature. |
| 650 | 6-character numeric field at column 76 | NO _x default rate for peak load hours | | |
| 660 | 1-character alphanumeric field at column 66 | Base/Peak Load Indicator | June 2002 rule requires certain LME units to use separate NO _x default rate values for peak load and base load hours, an indicator is needed to identify the type of test | LME combustion turbines in a group of identical units that test for NO _x emission rate either at base load only or at both base and peak loads. |

Table A-2: Differences between EDR v2.1 and EDR v2.2 Data Elements, Fields and Codes**

| Record Type | Data Field(s) Affected | Description of Difference from EDR v2.1 | Reason for the Difference |
|-------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 100 | Column 15 | Replace "2.1" with "2.2" | Different EDR version |
| 220 | Column 54 | Data element description incorporates "operational bins" for non load-based units | June, 2002 rule includes new missing data provisions for non load-based units (e.g., cement kilns, process heaters) |
| 300 | Column 34 | Data element description incorporates "operational bins" for non load-based units | June, 2002 rule includes new missing data provisions for non load-based units (e.g., cement kilns, process heaters) |
| 302 | Column 32 | Data element description incorporates "operational bins" for non load-based units | June, 2002 rule includes new missing data provisions for non load-based units (e.g., cement kilns, process heaters) |
| 303 | Column 32 | Data element description incorporates "operational bins" for non load-based units | June, 2002 rule includes new missing data provisions for non load-based units (e.g., cement kilns, process heaters) |
| 305 | Column 13 | Additional codes for Type of Fuel | June, 2002 rule allows units burning "other gaseous fuels" to qualify as LME units |
| 320 | Column 48 | Data element description incorporates "operational bins" for non load-based units | June, 2002 rule includes new missing data provisions for non load-based units (e.g., cement kilns, process heaters) |
| 360 | Column 41 | Additional codes for Fuel Type | June, 2002 rule allows units burning "other gaseous fuels" to qualify as LME units |
| 360 | Column 66 | Use only 2 codes, "NOXG" and "NOXU" for NO _x methodology. | Fuel type and control flags are not needed—redundant with columns 41 and 65. |
| 504 | Column 10 | Additional codes for Unit Type | June, 2002 rule provides reporting provisions for non load-based units |
| 530 | Table 26 | NO _x MPC values specified for cement kilns and process heaters | June, 2002 rule defines default NO _x MPC values for these types of units |
| 531 | Column 10 | Additional codes for Parameter | June, 2002 rule allows units burning "other gaseous fuels" to qualify as LME units and use Unit-specific SO ₂ and CO ₂ default emission rate. |
| 531 | Column 27 | Additional code "PPM" | Code is needed for sources reporting fuel-specific maximum potential SO ₂ and NO _x values |
| 531 | Column 34 | Additional codes for Purpose or Intended Use | June 2002 rule requires certain turbines using LME to define separate rates for base load and peak load hours |
| 531 | Column 37 | Additional codes for Type of Fuel | June 2002 rule allows fuel-specific missing data and fuel-specific maximum defaults for unmonitored bypass stacks |
| 535 | Column 19 | Modified data element description. One additional code ("2") and one code ("S") re-defined. | June, 2002 rule allows certain units with installed flow monitors to be exempted from 3-load flow RATA testing |
| 536 | Columns 10, 16, 22, 25, 26,27 | References to "operating level" in title and in several data element descriptions. The term "ft/sec" is added to the "UNITS" column | June, 2002 rule includes provisions for non load-based units to determine the range of operation and normal operating levels |
| 585 | Column 14 | Additional codes for Monitoring Methodology | June, 2002 rule allows units burning "other gaseous fuels" to qualify as LME units and use Unit-specific SO ₂ and CO ₂ default emission rate. Also, rule allows fuel-specific maximums for unmonitored bypass stacks |
| 585 | Column 28 | Additional codes for Missing Data Approach | June 2002 rule allows fuel-specific, ozone-season specific and non load-based missing data procedures |
| 587 | Column 34 | Revised data element description | June, 2002 rule allows units that combust "other" gaseous fuels to qualify for annual sulfur sampling frequency, based on results of the demonstration in section 2.3.6 of Appendix D. |
| 610 | Column 64 | The term "ft/sec" is added to the "UNITS" column, for the Load or Operating Level field | June, 2002 rule includes provisions for non load-based units, defining operating levels in terms of stack gas velocity |

(cont.)

Table A-2: Differences between EDR v2.1 and EDR v2.2 Data Elements, Fields and Codes**

| Record Type | Data Field(s) Affected | Description of Difference from EDR v2.1 | Reason for the Difference |
|--------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 611 | Columns 117, 127, 133, 134 | References to "operating level" added in several data element descriptions. The term "ft/sec" is added to the "UNITS" column | June, 2002 rule includes provisions for non load-based units, defining operating levels in terms of stack gas velocity |
| 645 | Columns 20, 24, 28, 32, 44, 48, 52, 56, 68, 72, 76, 80 | Several fields reserved. | June, 2002 rule significantly changes the methodology for a unit to qualify as a low mass emissions (LME) unit |
| 650 | Columns 68 and 69 | These fields, which are reserved in EDR v2.1, are needed to report the results of fuel- and unit-specific NO _x emission rates for LME units. After 7/12/02, these tests must be reported in v2.2 format, using a new calculation methodology. | June, 2002 rule changes the method of determining LME default NO _x emission rates |
| 660 | Column 60 | This field is reserved. | Information not needed. |
| 695 | Columns 21,29,34,39,44 | References to "operating level" added in several data element descriptions. | June, 2002 rule includes provisions for non load-based units, defining operating levels in terms of stack gas velocity |

** To properly assess the changes made to the codes for a particular data field, see the "Revised EDR Version 2.2 Reporting Instructions" for that field, in addition to Tables 2 through 5 of this document.