



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
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

(cont.)

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

(cont.)

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)		%,ppm	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	F6.4
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) ^½	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
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.