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40 CFR Ch. I (7-1-00 Edition)

(g) *Missing data records.* The owner or operator shall record the causes of any missing data periods and the actions taken by the owner or operator to cure such causes.

[60 FR 26533, May 17, 1995, as amended at 64 FR 28608, May 26, 1999]

§ 75.55 General recordkeeping provisions for specific situations.

Before April 1, 2000, the owner or operator shall meet the requirements of either this section or § 75.58. On and after April 1, 2000, the owner or operator shall meet the requirements of § 75.58.

(a) *Specific SO₂ emission record provisions for units with qualifying Phase I technology.* In addition to the SO₂ emissions information required in § 75.54(c), from January 1, 1997, through December 31, 1999, the owner or operator shall record the applicable information in this paragraph for each affected unit on which SO₂ emission controls have been installed and operated for the purpose of meeting qualifying Phase I technology requirements pursuant to § 72.42 of this chapter and § 75.15.

(1) For units with post-combustion emission controls:

(i) Component/system identification codes for each inlet and outlet SO₂-diluent continuous emission monitoring system;

(ii) Date and hour;

(iii) Hourly average inlet SO₂ emission rate (lb/mmBtu, rounded to nearest hundredth);

(iv) Hourly average outlet SO₂ emission rate (lb/mmBtu, rounded to nearest hundredth);

(v) Percent data availability for both inlet and outlet SO₂-diluent continuous emission monitoring systems (recorded to the nearest tenth of a percent), calculated pursuant to equation 8 of § 75.32 (for the first 8,760 unit operating hours following initial certification) and equation 9 of § 75.32, thereafter; and

(vi) Identification code for emissions formula used to derive hourly average inlet and outlet SO₂ mass emissions rates for each affected unit or group of units using a common stack.

(2) For units with combustion and/or pre-combustion emission controls:

(i) Component/system identification codes for each outlet SO₂-diluent continuous emission monitoring system;

(ii) Date and hour;

(iii) Hourly average outlet SO₂ emission rate (lb/mmBtu, rounded to nearest hundredth);

(iv) For units with combustion controls, average daily inlet SO₂ emission rate (lb/mmBtu, rounded to nearest hundredth), determined by coal sampling and analysis procedures in § 75.15; and

(v) For units with pre-combustion controls (i.e., fuel pretreatment), fuel analysis demonstrating the weight, sulfur content, and gross calorific value of the product and raw fuel lots.

(b) *Specific parametric data record provisions for calculating substitute emissions data for units with add-on emission controls.* In accordance with § 75.34, the owner or operator of an affected unit with add-on emission controls shall either record the applicable information in paragraph (b)(3) of this section for each hour of missing SO₂ concentration data or NO_x emission rate (in addition to other information), or shall record the information in paragraph (b)(1) of this section for SO₂ or paragraph (b)(2) of this section for NO_x through an automated data acquisition and handling system, as appropriate to the type of add-on emission controls:

(1) For units with add-on SO₂ emission controls petitioning to use or using the optional parametric monitoring procedures in appendix C of this part, for each hour of missing SO₂ concentration or volumetric flow data:

(i) The information required in § 75.54(c) for SO₂ concentration and volumetric flow if either one of these monitors is still operating;

(ii) Date and hour;

(iii) Number of operating scrubber modules;

(iv) Total feedrate of slurry to each operating scrubber module (gal/min);

(v) Pressure differential across each operating scrubber module (inches of water column);

(vi) For a unit with a wet flue gas desulfurization system, an inline measure of absorber pH for each operating scrubber module;

(vii) For a unit with a dry flue gas desulfurization system, the inlet and

outlet temperatures across each operating scrubber module;

(viii) For a unit with a wet flue gas desulfurization system, the percent solids in slurry for each scrubber module.

(ix) For a unit with a dry flue gas desulfurization system, the slurry feed rate (gal/min) to the atomizer nozzle;

(x) For a unit with SO₂ add-on emission controls other than wet or dry limestone, corresponding parameters approved by the Administrator;

(xi) Method of determination of SO₂ concentration and volumetric flow, using Codes 1-15 in Table 4 of § 75.54; and

(xii) Inlet and outlet SO₂ concentration values recorded by an SO₂ continuous emission monitoring system and the removal efficiency of the add-on emission controls.

(2) For units with add-on NO_x emission controls petitioning to use or using the optional parametric monitoring procedures in appendix C of this part, for each hour of missing NO_x emission rate data:

(i) Date and hour;

(ii) Inlet air flow rate (acfh, rounded to the nearest thousand);

(iii) Excess O₂ concentration of flue gas at stack outlet (percent, rounded to nearest tenth of a percent);

(iv) Carbon monoxide concentration of flue gas at stack outlet (ppm, rounded to the nearest tenth);

(v) Temperature of flue gas at furnace exit or economizer outlet duct (°F); and

(vi) Other parameters specific to NO_x emission controls (e.g., average hourly reagent feedrate);

(vii) Method of determination of NO_x emission rate using Codes 1-15 in Table 4 of § 75.54; and

(viii) Inlet and outlet NO_x emission rate values recorded by a NO_x continuous emission monitoring system and the removal efficiency of the add-on emission controls.

(3) For units with add-on SO₂ or NO_x emission controls following the provisions of § 75.34 (a)(1) or (a)(2), the owner or operator shall, for each hour of missing SO₂ or NO_x emission data, record:

(i) Parametric data which demonstrate the proper operation of the add-on emission controls, as described

in the quality assurance/quality control program for the unit. The parametric data shall be maintained on site, and shall be submitted upon request to the Administrator, an EPA Regional office, State, or local agency;

(ii) A flag indicating either that the add-on emission controls are operating properly, as evidenced by all parameters being within the ranges specified in the quality assurance/quality control program, or that the add-on emission controls are not operating properly;

(iii) For units petitioning under § 75.66 for substituting a representative SO₂ concentration during missing data periods, any available inlet and outlet SO₂ concentration values recorded by an SO₂ continuous emission monitoring system; and

(iv) For units petitioning under § 75.66 for substituting a representative NO_x emission rate during missing data periods, any available inlet and outlet NO_x emission rate values recorded by a NO_x continuous emission monitoring system.

(c) *Specific SO₂ emission record provisions for gas-fired or oil-fired units using optional protocol in appendix D of this part.* In lieu of recording the information in § 75.54(c) of this section, the owner or operator shall record the applicable information in this paragraph for each affected gas-fired or oil-fired unit for which the owner or operator is using the optional protocol in appendix D of this part for estimating SO₂ mass emissions.

(1) For each hour when the unit is combusting oil:

(i) Date and hour;

(ii) Hourly average flow rate of oil with the units in which oil flow is recorded, (gal/hr, lb/hr, m³/hr, or bbl/hr, rounded to the nearest tenth)(flag value if derived from missing data procedures);

(iii) Sulfur content of oil sample used to determine SO₂ mass emissions, rounded to nearest hundredth for diesel fuel or to the nearest tenth of a percent for other fuel oil (flag value if derived from missing data procedures);

(iv) Method of oil sampling (flow proportional, continuous drip, as delivered or manual);

- (v) Mass of oil combusted each hour (lb/hr, rounded to the nearest tenth);
 - (vi) SO₂ mass emissions from oil (lb/hr, rounded to the nearest tenth);
 - (vii) For units using volumetric oil flowmeters, density of oil (flag value if derived from missing data procedures);
 - (viii) Gross calorific value (heat content) of oil, used to determine heat input (Btu/mass unit) (flag value if derived from missing data procedures);
 - (ix) Hourly heat input rate from oil according to procedures in appendix F of this part (mmBtu/hr, to the nearest tenth); and
 - (x) Fuel usage time for combustion of oil during the hour, rounded up to the nearest 15 min.
- (2) For gas-fired units or oil-fired units using the optional protocol in appendix D of this part of daily manual oil sampling, when the unit is combusting oil, the highest sulfur content recorded from the most recent 30 daily oil samples rounded to nearest tenth of a percent.
- (3) For each hour when the unit is combusting gaseous fuel,
- (i) Date and hour;
 - (ii) Hourly heat input rate from gaseous fuel according to procedures in appendix F to this part (mmBtu/hr, rounded to the nearest tenth);
 - (iii) Sulfur content or SO₂ emission rate, in one of the following formats, in accordance with the appropriate procedure from appendix D of this part:
 - (A) Sulfur content of gas sample, (rounded to the nearest 0.1 grains/100 scf) (flag value if derived from missing data procedures); or
 - (B) SO₂ emission rate of 0.0006 lb/mmBtu for pipeline natural gas;
 - (iv) Hourly flow rate of gaseous fuel, in 100 scfh (flag value if derived from missing data procedures);
 - (v) Gross calorific value (heat content) of gaseous fuel, used to determine heat input (Btu/scf) (flag value if derived from missing data procedures);
 - (vi) Heat input rate from gaseous fuel (mmBtu/hr, rounded to the nearest tenth);
 - (vii) SO₂ mass emissions due to the combustion of gaseous fuels, lb/hr; and
 - (viii) Fuel usage time for combustion of gaseous fuel during the hour, rounded up to the nearest 15 min.
- (4) For each oil sample or sample of diesel fuel:
- (i) Date of sampling;
 - (ii) Sulfur content (percent, rounded to the nearest hundredth for diesel fuel and to the nearest tenth for other fuel oil) (flag value if derived from missing data procedures);
 - (iii) Gross calorific value or heat content (Btu/lb) (flag value if derived from missing data procedures); and
 - (iv) Density or specific gravity, if required to convert volume to mass (flag value if derived from missing data procedures).
- (5) For each daily sample of gaseous fuel:
- (i) Date of sampling;
 - (ii) Sulfur content (grains/100 scf, rounded to the nearest tenth) (flag value if derived from missing data procedures);
- (6) For each monthly sample of gaseous fuel:
- (i) Date of sampling;
 - (ii) Gross calorific value or heat content (Btu/scf) (flag value if derived from missing data procedures).
- (d) *Specific NO_x emission record provisions for gas-fired peaking units or oil-fired peaking units using optional protocol in appendix E of this part.* In lieu of recording the information in paragraph § 75.54(d), the owner or operator shall record the applicable information in this paragraph for each affected gas-fired peaking unit or oil-fired peaking unit for which the owner or operator is using the optional protocol in appendix E of this part for estimating NO_x emission rate.
- (1) For each hour when the unit is combusting oil,
- (i) Date and hour;
 - (ii) Hourly average fuel flow rate of oil with the units in which oil flow is recorded (gal/hour, lb/hr or bbl/hour) (flag value if derived from missing data procedures);
 - (iii) Gross calorific value (heat content) of oil, used to determine heat input (Btu/lb) (flag value if derived from missing data procedures);
 - (iv) Hourly average NO_x emission rate from combustion of oil (lb/mmBtu);
 - (v) Heat input rate of oil (mmBtu/hr, rounded to the nearest tenth); and

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(vi) Fuel usage time for combustion of oil during the hour, rounded to the nearest 15 min.

(2) For each hour when the unit is combusting gaseous fuel,

- (i) Date and hour;
- (ii) Hourly average fuel flow rate of gaseous fuel (100 scfh) (flag value if derived from missing data procedures);
- (iii) Gross calorific value (heat content) of gaseous fuel, used to determine heat input (Btu/scf) (flag value if derived from missing data procedures);
- (iv) Hourly average NO_x emission rate from combustion of gaseous fuel (lb/mmBtu, rounded to nearest hundredth);

(v) Heat input rate from gaseous fuel (mmBtu/hr, rounded to the nearest tenth); and

(vi) Fuel usage time for combustion of gaseous fuel during the hour, rounded to the nearest 15 min.

(3) For each hour when the unit combusts any fuel:

- (i) Date and hour;
- (ii) Total heat input from all fuels (mmBtu, rounded to the nearest tenth);
- (iii) Hourly average NO_x emission rate for the unit for all fuels;
- (iv) For stationary gas turbines and diesel or dual-fuel reciprocating engines, hourly averages of operating parameters under section 2.3 of appendix E (flag if value is outside of manufacturer's recommended range);

(v) For boilers, hourly average boiler O₂ reading (percent, rounded to the nearest tenth) (flag if value exceeds by more than 2 percentage points the O₂ level recorded at the same heat input during the previous NO_x emission rate test).

(4) For each fuel sample:

- (i) Date of sampling;
- (ii) Gross calorific value (heat content) (Btu/lb for oil, Btu/scf for gaseous fuel); and
- (iii) Density or specific gravity, if required to convert volume to mass.

(e) *Specific SO₂ emission record provisions during the combustion of gaseous fuel.* (1) If SO₂ emissions are determined in accordance with the provisions in §75.11(e)(2) during hours in which only gaseous fuel is combusted in a unit with an SO₂ CEMS, the owner or operator shall record the information in paragraph (c)(3) of this section

in lieu of the information in §§75.54(c)(1) and (c)(3) or §§75.57(c)(1) and (c)(4), for those hours.

(2) The provisions of this paragraph apply to a unit which, in accordance with the provisions of §75.11(e)(3), uses an SO₂ CEMS to determine SO₂ emissions during hours in which only gaseous fuel is combusted in the unit. If the unit sometimes burns only gaseous fuel that is very low sulfur fuel (as defined in §72.2 of this chapter) as a primary and/or backup fuel and at other times combusts higher-sulfur fuels, such as coal or oil, as primary and/or backup fuel(s), then the owner or operator shall keep records on-site, suitable for inspection, of the type(s) of fuel(s) burned during each period of missing SO₂ data and the number of hours that each type of fuel was combusted in the unit during each missing data period. This recordkeeping requirement does not apply to an affected unit that burns very low sulfur fuel exclusively, nor does it apply to a unit that burns such gaseous fuel(s) only during unit startup.

[60 FR 26535, 26568, May 17, 1995, as amended at 61 FR 59161, Nov. 20, 1996; 64 FR 28608, May 26, 1999]

§ 75.56 Certification, quality assurance and quality control record provisions.

Before April 1, 2000, the owner or operator shall meet the requirements of either this section or §75.59. On and after April 1, 2000, the owner or operator shall meet the requirements of §75.59.

(a) *Continuous emission or opacity monitoring systems.* The owner or operator shall record the applicable information in this section for each certified monitor or certified monitoring system (including certified backup monitors) measuring and recording emissions or flow from an affected unit.

(1) For each SO₂ or NO_x pollutant concentration monitor, flow monitor, CO₂ monitor, or diluent gas monitor, the owner or operator shall record the following for all daily and 7-day calibration error tests, including any follow-up tests after corrective action:

- (i) Component/system identification code;
- (ii) Instrument span;