Where:

 $\begin{array}{lll} CG_{a,\ i},\ CG_{b,\ i} = Concentration\ of\ TOC\ (minus\ methane\ and\ ethane)\ or\ total\ organic\ hazardous\ air\ pollutants,\ in\ vented\ gas\ stream,\ entering\ (CG_{a,\ i})\ and\ exiting\ (CG_{b,\ i})\ the\ control\ device,\ dry\ basis,\ parts\ per\ million\ by\ volume. \end{array}$

 $QMG_a,\ QMG_b$ = Mass rate of TOC (minus methane and ethane) or total organic hazardous air pollutants, in vented gas stream, entering (QMG_a) and exiting (QMG_b) the control device, dry basis, kilograms per hour.

MW_i = Molecular weight of a component, kilogram/kilogram-mole.

 QG_a , QG_b = Flow rate of gas stream entering (QG_a) and exiting (QG_b) the control devices dry standard cubic matters for hour

vice, dry standard cubic meters per hour. K_2 = Constant, 41.57×10^{-9} (parts per million)⁻¹ (gram-mole per standard cubic meter) (kilogram/gram), where standard temperature (gram-mole per standard cubic meter) is 20 °Celsius.

i = Identifier for a compound.

n = Number of components in the sample.

(8) Percent reduction calculation. The percent reduction in TOC (minus methane and ethane) or total organic hazardous air pollutants shall be calculated as follows:

$$E = \frac{QMG_a - QMG_b}{QMG_a} (100\%) \qquad (Eqn WW18)$$

Where:

E = Destruction efficiency of control device, percent.

QMG_a, QMG_b = Mass rate of TOC (minus methane and ethane) or total organic hazardous air pollutants, in vented gas stream entering and exiting (QMG_b) the control device, dry basis, kilograms per hour

(9) Compare mass destruction efficiency to required efficiency. If complying with the 95 percent reduction efficiency requirement, compliance is demonstrated if the mass destruction efficiency (calculated in Equation WW18) is 95 percent or greater. If complying with the 20 parts per million by volume limit in §63.139 (c)(1)(ii) of this subpart, compliance is demonstrated if the outlet total organic compound concentration, less methane and ethane, or total organic hazardous air pollutants concentration is 20 parts per million by volume, or less. For combustion control devices, the concentration shall be calculated on a dry basis, corrected to 3 percent oxygen.

(j) When a flare is used to comply with §63.139(c), the owner or operator shall comply with paragraphs (j)(1) through (3) of this section. The owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet organic HAP or TOC concentration.

(1) Conduct a visible emission test using the techniques specified in §63.11(b)(4).

(2) Determine the net heating value of the gas being combusted using the techniques specified in §63.11(b)(6).

(3) Determine the exit velocity using the techniques specified in either §63.11(b)(7)(i) (and §63.11(b)(7)(iii), where applicable) or §63.11(b)(8), as appropriate.

[62 FR 2765, Jan. 17, 1997, as amended at 63 FR 67793, Dec. 9, 1998; 64 FR 20192, Apr. 26, 1999; 66 FR 6933, Jan. 22, 2001]

§ 63.146 Process wastewater provisions—reporting.

(a) For each waste management unit, treatment process, or control device used to comply with §§63.138 (b)(1), (c)(1), (d), (e), (f), or (g) of this subpart for which the owner or operator seeks to monitor a parameter other than those specified in table 11, table 12, or table 13 of this subpart, the owner or operator shall submit a request for approval to monitor alternative parameters according to the procedures specified in §63.151(f) or (g) of this subpart.

(b) The owner or operator shall submit the information specified in paragraphs (b)(1) through (b)(9) of this section as part of the Notification of Compliance Status required by §63.152(b) of this subpart.

(1) Requirements for Group 2 wastewater streams. This paragraph does not

- (i) Process unit identification and description of the process unit.
 - (ii) Stream identification code.
- (iii) For existing sources, concentration of table 9 compound(s) in parts per million, by weight. For new sources, concentration of table 8 and/or table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine concentration.
 - (iv) Flow rate in liter per minute.
- (2) For each new and existing source, the owner or operator shall submit the information specified in table 15 of this subpart for Table 8 and/or Table 9 compounds.
 - (3) [Reserved]
- (4) For each treatment process identified in table 15 of this subpart that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit the information specified in table 17 of this subpart.
- (5) For each waste management unit identified in table 15 of this subpart that receives or manages a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit the information specified in table 18 of this subpart.
- (6) For each residual removed from a Group 1 wastewater stream, the owner or operator shall report the information specified in table 19 of this subpart.
- (7) For each control device used to comply with §§63.133 through 63.139 of this subpart, the owner or operator shall report the information specified in paragraphs (b)(7)(i) and (b)(7)(ii) of this section.
- (i) For each flare, the owner or operator shall submit the information specified in paragraphs (b)(7)(i)(A) through (b)(7)(i)(C) of this section.

- (A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);
- (B) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by §63.139(c)(3) of this subpart; and
- (C) Reports of the times and durations of all periods during the compliance determination when the pilot flame is absent or the monitor is not operating.
- (ii) For each control device other than a flare, the owner or operator shall submit the information specified in paragraph (b)(7)(ii)(A) of this section and in either paragraph (b)(7)(ii)(B) or (b)(7)(ii)(C) of this section.
- (A) The information on parameter ranges specified in §63.152(b)(2) of this subpart for the applicable parameters specified in table 13 of this subpart, unless the parameter range has already been established in the operating permit; and either
- (B) The design evaluation specified in §63.139(d)(2) of this subpart; or
- (C) Results of the performance test specified in §63.139(d)(1) of this subpart. Performance test results shall include operating ranges of key process and control parameters during the performance test; the value of each parameter being monitored in accordance with §63.143 of this subpart; and applicable supporting calculations.
- (8) For each treatment process used to comply with $\S63.138(b)(1)$, (c)(1), (d), (e), (f), or (g) of this subpart, the owner or operator shall submit the information specified in paragraphs (b)(8)(i) and (b)(8)(ii) of this section.
- (i) For Items 1 and 2 in table 12 of this subpart, the owner or operator shall submit the information specified in paragraphs (b)(8)(i)(A) and (b)(8)(i)(B) of this section. An owner or operator using the design steam stripper compliance option specified §63.138(d) of this subpart does not have to submit the information specified in paragraph (b)(8)(i)(A) or (b)(8)(i)(B) of this section. However, the monitoring requirements specified in Item 2 of table 12 of this subpart still apply.
- (A) The information on parameter ranges specified in $\S63.152(b)(2)$ of this subpart for the parameters approved by

the Administrator, unless the parameter range has already been established in the operating permit.

- (B) Results of the initial measurements of the parameters approved by the Administrator and any applicable supporting calculations.
- (ii) For Item 3 in table 12 of this subpart, the owner or operator shall submit the information on parameter ranges specified in §63.152(b)(2) of this subpart for the parameters specified in Item 3 of table 12 of this subpart, unless the parameter range has already been established in the operating permit.
- (9) For each waste management unit or treatment process used to comply with $\S63.138(b)(1)$, (c)(1), (e), (f), or (g), the owner or operator shall submit the information specified in either paragraph (b)(9)(i) or (ii) of this section.
- (i) The design evaluation and supporting documentation specified in §63.138(j)(1) of this subpart.
- (ii) Results of the performance test specified in §63.138(j)(2) of this subpart. Performance test results shall include operating ranges of key process and control parameters during the performance test; the value of each parameter being monitored in accordance with §63.143 of this subpart; and applicable supporting calculations.
- (c) For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit as part of the next Periodic Report required by §63.152(c) of this subpart the results of each inspection required by §63.143(a) of this subpart in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in $\S\S63.133$ through 63.137 of this subpart. Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and date the repair was made.
- (d) Except as provided in paragraph (f) of this section, for each treatment process used to comply with §63.138(b)(1), (c)(1), (d), (e), (f), or (g), the owner or operator shall submit as

- part of the next Periodic Report required by \$63.152(c) the information specified in paragraphs (d)(1), (2), and (3) of this section for the monitoring required by \$63.143(b), (c), and (d).
- (1) For Item 1 in table 12, the owner or operator shall submit the results of measurements that indicate that the biological treatment unit is outside the range established in the Notification of Compliance Status or operating permit.
- (2) For Item 2 in table 12, the owner or operator shall submit the monitoring results for each operating day during which the daily average value of a continuously monitored parameter is outside the range established in the Notification of Compliance Status or operating permit.
- (3) For Item 3 in table 12 of this subpart, the owner or operator shall submit the monitoring results for each operating day during which the daily average value of any monitored parameter approved in accordance with §63.151 (f) was outside the range established in the Notification of Compliance Status or operating permit.
- (e) Except as provided in paragraph (f) of this section, for each control device used to comply with §§63.133 through 63.139 of this subpart, the owner or operator shall submit as part of the next Periodic Report required by §63.152(c) of this subpart the information specified in either paragraph (e)(1) or (e)(2) of this section.
- (1) The information specified in table 20 of this subpart, or
- (2) If the owner or operator elects to comply with §63.143(e)(2) of this subpart, i.e., an organic monitoring device installed at the outlet of the control device, the owner or operator shall submit the monitoring results for each operating day during which the daily average concentration level or reading is outside the range established in the Notification of Compliance Status or operating permit.
- (f) Where the owner or operator obtains approval to use a treatment process or control device other than one for which monitoring requirements are specified in §63.143 of this subpart, or to monitor parameters other than those specified in table 12 or 13 of this

(g) If an extension is utilized in accordance with §63.133(e)(2) or §63.133(h) of this subpart, the owner or operator shall include in the next periodic report the information specified in §63.133 (e)(2) or §63.133(h).

[62 FR 2774, Jan. 17, 1997, as amended at 64 FR 20192, Apr. 26, 1999; 66 FR 6933, Jan. 22, 2001]

§ 63.147 Process wastewater provisions—recordkeeping.

- (a) The owner or operator transferring a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with §63.132(g) of this subpart shall keep a record of the notice sent to the treatment operator stating that the wastewater stream or residual contains organic hazardous air pollutants which are required to be managed and treated in accordance with the provisions of this subpart.
- (b) The owner or operator shall keep in a readily accessible location the records specified in paragraphs (b)(1) through (8) of the section.
- (1) A record that each waste management unit inspection required by §§ 63.133 through 63.137 of this subpart was performed.
- (2) A record that each inspection for control devices required by §63.139 of this subpart was performed.
- (3) A record of the results of each seal gap measurement required by §§ 63.133(d) and 63.137(c) of this subpart. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in §63.120(b)(2), (3), and (4) of this subpart.
- (4) For Item 1 and Item 3 of table 12 of this subpart, the owner or operator shall keep the records approved by the Administrator.
- (5) Except as provided in paragraph (e) of this section, continuous records of the monitored parameters specified in Item 2 of table 12 and table 13 of this subpart, and in §63.143(e)(2) of this subpart.
- (6) Documentation of a decision to use an extension, as specified in §63.133(e)(2) or (h) of this subpart, which shall include a description of the

failure, documentation that alternate storage capacity is unavailable, and specification of a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

- (7) Documentation of a decision to use a delay of repair due to unavailability of parts, as specified in §63.140(c), shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept on site and when the manufacturer promised delivery), and the date when repair was completed.
- (8) Requirements for Group 2 wastewater streams. This paragraph (b)(8) does not apply to Group 2 wastewater streams that are used to comply with §63.138(g). For all other Group 2 wastewater streams, the owner or operator shall keep in a readily accessible location the records specified in paragraphs (b)(8)(i) through (iv) of this section.
- (i) Process unit identification and description of the process unit.
 - (ii) Stream identification code.
- (iii) For existing sources, concentration of table 9 compound(s) in parts per million, by weight. For new sources, concentration of table 8 and/or table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine concentration.
 - (iv) Flow rate in liter per minute.
- (c) For each boiler or process heater used to comply with §§63.133 through 63.139 of this subpart, the owner or operator shall keep a record of any changes in the location at which the vent stream is introduced into the flame zone as required in §63.139(c)(1) of this subpart.
- (d) The owner or operator shall keep records of the daily average value of each continuously monitored parameter for each operating day as specified in §63.152(f), except as provided in paragraphs (d)(1) through (3) of this section.
- (1) For flares, records of the times and duration of all periods during which the pilot flame is absent shall be kept rather than daily averages.
- (2) Regenerative carbon adsorbers. For regenerative carbon adsorbers, the owner or operator shall keep the records specified in paragraphs (d)(2)(i)