

(D) Owners and operators subject to paragraph (g)(1)(vi)(B) of this section shall retain the current description of the monitoring system as long as the description is current, but not less than 5 years from the date of its creation. The current description shall, at all times, be retained on-site or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The owner or operator shall retain the most recent superseded description at least until 5 years from the date of its creation. The superseded description shall be retained on-site (or accessible from a central location by computer that provides access within 2 hours after a request) at least 6 months after its creation. Thereafter, the superseded description may be stored off-site.

(2) If an owner or operator has elected to implement the requirements of paragraph (g)(1) of this section, and a period of 6 consecutive months has passed without an excursion as defined in paragraph (g)(2)(iv) of this section, the owner or operator is no longer required to record the daily average value for that parameter for that unit of equipment, for any operating day when the daily average value is less than the maximum, or greater than the minimum established limit. With approval by the Administrator, monitoring data generated prior to the compliance date of this subpart shall be credited toward the period of 6 consecutive months, if the parameter limit and the monitoring was required and/or approved by the Administrator.

(i) If the owner or operator elects not to retain the daily average values, the owner or operator shall notify the Administrator in the next periodic report. The notification shall identify the parameter and unit of equipment.

(ii) If, on any operating day after the owner or operator has ceased recording daily averages as provided in paragraph (g)(2) of this section, there is an excursion as defined in paragraph (g)(2)(iv) of this section, the owner or operator shall immediately resume retaining the daily average value for each day, and shall notify the Administrator in the next periodic report. The owner or operator shall continue to retain each daily average value until another pe-

riod of 6 consecutive months has passed without an excursion as defined in paragraph (g)(2)(iv) of this section.

(iii) The owner or operator shall retain the records specified in paragraphs (g)(1) (i), (ii), (iii), (iv), (v), and (vi) of this section. For any calendar week, if compliance with paragraphs (g)(1) (i), (ii), (iii), and (iv) of this section does not result in retention of a record of at least one occurrence or measured parameter value, the owner or operator shall record and retain at least one parameter value during a period of operation other than a startup, shutdown, or malfunction.

(iv) For purposes of paragraph (g) of this section, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except as provided in paragraphs (g)(2)(iv)(A) and (g)(2)(iv)(B) of this section.

(A) The daily average value during any startup, shutdown, or malfunction shall not be considered an excursion for purposes of this paragraph (g)(2), if the owner or operator operates the source during such periods in accordance with § 63.102(a)(4).

(B) An excused excursion, as described in § 63.152(c)(2)(ii) (B) and (C), shall not be considered an excursion for purposes of this paragraph (g)(2).

[59 FR 19468, Apr. 22, 1994, as amended at 60 FR 63629, Dec. 12, 1995; 61 FR 64577, Dec. 5, 1996; 62 FR 2776, Jan. 17, 1997; 64 FR 20195, Apr. 26, 1999; 66 FR 6934, Jan. 22, 2001; 71 FR 20456, Apr. 20, 2006]

§ 63.153 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart

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to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.110, 63.112 through 63.113, 63.119, 63.126, 63.132 through 63.140, 63.148 through 63.149, and 63.150(i)(1) through (4). Follow the requirements in §63.121 to request permission to use an alternative means of emission limitation for storage vessels. Where these standards reference another subpart, the cited provisions will be delegated according to the delega-

tion provisions of the referenced subpart. Where these standards reference another subpart and modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37344, June 23, 2003]

TABLE 1 TO SUBPART G OF PART 63—PROCESS VENTS—COEFFICIENTS FOR TOTAL RESOURCE EFFECTIVENESS FOR EXISTING SOURCE NONHALOGENATED AND HALOGENATED VENT STREAMS

| Type of Stream | Control Device Basis | Values of Coefficients | | | |
|-------------------|---|------------------------|------------------------|-------------------------|-------------------------|
| | | a | b | c | d |
| Nonhalogenated .. | Flare | 1.935 | 3.660×10^{-1} | -7.687×10^{-3} | -7.333×10^{-4} |
| | Thermal Incinerator 0 Percent Heat Recovery .. | 1.492 | 6.267×10^{-2} | 3.177×10^{-2} | -1.159×10^{-3} |
| | Thermal Incinerator 70 Percent Heat Recovery .. | 2.519 | 1.183×10^{-2} | 1.300×10^{-2} | 4.790×10^{-2} |
| Halogenated | Thermal Incinerator and Scrubber | 3.995 | 5.200×10^{-2} | -1.769×10^{-3} | 9.700×10^{-4} |

TABLE 1A TO SUBPART G OF PART 63—APPLICABLE 40 CFR PART 63 GENERAL PROVISIONS

| 40 CFR part 63, subpart A, provisions applicable to subpart G |
|---|
| § 63.1(a)(1), (a)(2), (a)(3), (a)(13), (a)(14), (b)(2) and (c)(4) |
| § 63.2 |
| § 63.5(a)(1), (a)(2), (b), (d)(1)(ii), (d)(3)(i), (d)(3)(iii) through (d)(3)(vi), (d)(4), (e), (f)(1), and (f)(2) |
| § 63.6(a), (b)(3), (c)(5), (i)(1), (i)(2), (i)(4)(i)(A), (i)(5) through (i)(14), (i)(16) and (j) |
| § 63.9(a)(2), (b)(4)(i) ^a , (b)(4)(ii), (b)(4)(iii), (b)(5) ^a , (c), (d) |
| § 63.10(d)(4) |
| § 63.12(b) |

^aThe notifications specified in § 63.9(b)(4)(i) and (b)(5) shall be submitted at the times specified in 40 CFR part 65.

TABLE 2 TO SUBPART G OF PART 63—PROCESS VENTS—COEFFICIENTS FOR TOTAL RESOURCE EFFECTIVENESS FOR NEW SOURCE NONHALOGENATED AND HALOGENATED VENT STREAMS

| Type of stream | Control device basis | Values of Coefficients | | | |
|----------------|---|------------------------|------------------------|-------------------------|-------------------------|
| | | a | b | c | d |
| Nonhalogenated | Flare | 0.5276 | 0.0998 | -2.096×10^{-3} | -2.000×10^{-4} |
| | Thermal Incinerator 0 Percent Heat Recovery | 0.4068 | 0.0171 | 8.664×10^{-3} | -3.162×10^{-4} |
| | Thermal Incinerator 70 Percent Heat Recovery. | 0.6868 | 3.209×10^{-3} | 3.546×10^{-3} | 1.306×10^{-2} |

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| Type of stream | Control device basis | Values of Coefficients | | | |
|-------------------|--|------------------------|------------------------|-------------------------|------------------------|
| | | a | b | c | d |
| Halogenated | Thermal Incinerator and Scrubber | 1.0895 | 1.417×10^{-2} | -4.822×10^{-4} | 2.645×10^{-4} |

TABLE 3 TO SUBPART G OF PART 63—PROCESS VENTS—MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS FOR COMPLYING WITH 98 WEIGHT-PERCENT REDUCTION OF TOTAL ORGANIC HAZARDOUS AIR POLLUTANTS EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

| Control device | Parameters to be monitored ^a | Recordkeeping and reporting requirements for monitored parameters |
|---|---|---|
| Thermal incinerator | Firebox temperature ^b [63.114(a)(1)(i)]. | <ol style="list-style-type: none"> 1. Continuous records.^c 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS.^d 3. Record the daily average firebox temperature for each operating day.^e 4. Report all daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected^f—PR.^g |
| Catalytic incinerator | Temperature upstream and downstream of the catalyst bed [63.114(a)(1)(ii)]. | <ol style="list-style-type: none"> 1. Continuous records. 2. Record and report the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test—NCS. 3. Record the daily average upstream temperature and temperature difference across the catalyst bed for each operating day.^e 4. Report all daily average upstream temperatures that are outside the range established in the NCS or operating permit—PR. 5. Report all daily average temperature differences across the catalyst bed that are outside the range established in the NCS or operating permit—PR. 6. Report all operating days when insufficient monitoring data are collected.^f |
| Boiler or process heater with a design heat input capacity less than 44 megawatts and vent stream is <i>not</i> introduced with or as the primary fuel. | Firebox temperature ^b [63.114(a)(3)]. | <ol style="list-style-type: none"> 1. Continuous records. 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS. 3. Record the daily average firebox temperature for each operating day.^e 4. Report all daily average firebox temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected^f—PR. |
| Flare | Presence of a flame at the pilot light [63.114(a)(2)]. | <ol style="list-style-type: none"> 1. Hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour. 2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination—NCS. 3. Record the times and durations of all periods when all pilot flames are absent or the monitor is not operating. 4. Report the times and durations of all periods when all pilot flames of a flare are absent—PR. |
| Recapture devices | The appropriate monitoring device identified in table 4 when, in the table, the term "recapture" is substituted for "recovery." [63.114(a)(5)]. | <ol style="list-style-type: none"> 1. The recordkeeping and reporting requirements for monitored parameters identified for the appropriate monitoring device in table 4 of this subpart. |
| Scrubber for halogenated vent streams (Note: Controlled by a combustion device other than a flare). | pH of scrubber effluent [63.114(a)(4)(i)], and. | <ol style="list-style-type: none"> 1. Continuous records. 2. Record and report the pH of the scrubber effluent averaged over the full period of the performance test—NCS. 3. Record the daily average pH of the scrubber effluent for each operating day.^e 4. Report all daily average pH values of the scrubber effluent that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected^f—PR. |

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| Control device | Parameters to be monitored ^a | Recordkeeping and reporting requirements for monitored parameters |
|---|--|---|
| Scrubber for halogenated vent streams (Note: Controlled by a combustion device other than a flare) (Continued). | Scrubber liquid and gas flow rates [63.114(a)(4)(ii)]. | <ol style="list-style-type: none"> 1. Continuous records of scrubber liquid flow rate. 2. Record and report the scrubber liquid/gas ratio averaged over the full period of the performance test—NCS. 3. Record the daily average scrubber liquid/gas ratio for each operating day.^e 4. Report all daily average scrubber liquid/gas ratios that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |
| All control devices | Presence of flow diverted to the atmosphere from the control device [63.114(d)(1)] <i>or</i> . Monthly inspections of sealed valves [63.114(d)(2)]. | <ol style="list-style-type: none"> 1. Hourly records of whether the flow indicator was operating and whether diversion was detected at any time during each hour. 2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating—PR. 1. Records that monthly inspections were performed. 2. Record and report all monthly inspections that show the valves are moved to the diverting position or the seal has been changed—PR. |

^aRegulatory citations are listed in brackets.
^bMonitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.
^c“Continuous records” is defined in § 63.111 of this subpart.
^dNCS=Notification of Compliance Status described in § 63.152 of this subpart.
^eThe daily average is the average of all recorded parameter values for the operating day. If all recorded values during an operating day are within the range established in the NCS or operating permit, a statement to this effect can be recorded instead of the daily average.
^fThe periodic reports shall include the duration of periods when monitoring data is not collected for each excursion as defined in § 63.152(c)(2)(ii)(A) of this subpart.
^gPR=Periodic Reports described in § 63.152 of this subpart.

TABLE 4 TO SUBPART G OF PART 63—PROCESS VENTS—MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS FOR MAINTAINING A TRE INDEX VALUE >1.0 AND ≤4.0

| Final recovery device | Parameters to be monitored ^a | Recordkeeping and reporting requirements for monitored parameters |
|------------------------------------|---|---|
| Absorber ^b | Exit temperature of the absorbing liquid [63.114(b)(1)], and. Exit specific gravity [63.114(b)(1)] | <ol style="list-style-type: none"> 1. Continuous records^c. 2. Record and report the exit temperature of the absorbing liquid averaged over the full period of the TRE determination—NCS^d. 3. Record the daily average exit temperature of the absorbing liquid for each operating day^e. 4. Report all the daily average exit temperatures of the absorbing liquid that are outside the range established in the NCS or operating permit—PR^f. |
| Condenser ^d | Exit (product side) temperature [63.114(b)(2)]. | <ol style="list-style-type: none"> 1. Continuous records. 2. Record and report the exit temperature averaged over the full period of the TRE determination—NCS. 3. Record the daily average exit temperature for each operating day^e. 4. Report all daily average exit temperatures that are outside the range established in the NCS or operating permit—PR. |
| Carbon adsorber ^d | Total regeneration stream mass or volumetric flow during carbon bed regeneration cycle(s) [63.114(b)(3)], and. Temperature of the carbon bed after regeneration [and within 15 minutes of completing any cooling cycle(s)] [63.114(b)(3)]. | <ol style="list-style-type: none"> 1. Record of total regeneration stream mass or volumetric flow for each carbon bed regeneration cycle. 2. Record and report the total regeneration stream mass or volumetric flow during each carbon bed regeneration cycle during the period of the TRE determination—NCS. 3. Report all carbon bed regeneration cycles when the total regeneration stream mass or volumetric flow is outside the range established in the NCS or operating permit—PR. 1. Records of the temperature of the carbon bed after each regeneration. 2. Record and report the temperature of the carbon bed after each regeneration during the period of the TRE determination—NCS. |

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| Final recovery device | Parameters to be monitored ^a | Recordkeeping and reporting requirements for monitored parameters |
|--|---|---|
| All recovery devices (as an alternative to the above). | Concentration level or reading indicated by an organic monitoring device at the outlet of the recovery device [63.114 (b)]. | <ol style="list-style-type: none"> 3. Report all carbon bed regeneration cycles during which temperature of the carbon bed after regeneration is outside the range established in the NCS or operating permit—PR. 1. Continuous records. 2. Record and report the concentration level or reading averaged over the full period of the TRE determination—NCS. 3. Record the daily average concentration level or reading for each operating day^e. 4. Report all daily average concentration levels or readings that are outside the range established in the NCS or operating permit—PR. |

^aRegulatory citations are listed in brackets.
^bAlternatively, these devices may comply with the organic monitoring device provisions listed at the end of this table under "All Recovery Devices."
^c"Continuous records" is defined in §63.111 of this subpart.
^dNCS = Notification of Compliance Status described in §63.152 of this subpart.
^eThe daily average is the average of all values recorded during the operating day. If all recorded values during an operating day are within the range established in the NCS or operating permit, a statement to this effect can be recorded instead of the daily average.
^fPR= Periodic Reports described in §63.152 of this subpart.

TABLE 5 TO SUBPART G OF PART 63—GROUP 1 STORAGE VESSELS AT EXISTING SOURCES

| Vessel capacity (cubic meters) | Vapor Pressure ¹ (kilopascals) |
|--------------------------------|---|
| 75 ≤ capacity <151 | ≥13.1 |
| 151 ≤ capacity | ≥5.2 |

¹Maximum true vapor pressure of total organic HAP at storage temperature.

TABLE 6 TO SUBPART G OF PART 63—GROUP 1 STORAGE VESSELS AT NEW SOURCES

| Vessel capacity (cubic meters) | Vapor pressure ^a (kilopascals) |
|--------------------------------|---|
| 38 ≤ capacity <151 | ≥13.1 |
| 151 ≤ capacity | ≥0.7 |

^aMaximum true vapor pressure of total organic HAP at storage temperature.

TABLE 7 TO SUBPART G OF PART 63—TRANSFER OPERATIONS—MONITORING, RECORD-KEEPING, AND REPORTING REQUIREMENTS FOR COMPLYING WITH 98 WEIGHT-PERCENT REDUCTION OF TOTAL ORGANIC HAZARDOUS AIR POLLUTANTS EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

| Control device | Parameters to be monitored ^a | Recordkeeping and reporting requirements for monitored parameters |
|-----------------------------|---|---|
| Thermal incinerator | Firebox temperature ^b [63.127(a)(1)(i)]. | <ol style="list-style-type: none"> 1. Continuous records^c during loading. 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS.^d 3. Record the daily average firebox temperature for each operating day^e. 4. Report daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected^f—PR^g. |
| Catalytic incinerator | Temperature upstream and downstream of the catalyst bed [63.127(a)(1)(ii)]. | <ol style="list-style-type: none"> 1. Continuous records during loading. 2. Record and report the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test—NCS. 3. Record the daily average upstream temperature and temperature difference across catalyst bed for each operating day.^e 4. Report all daily average upstream temperatures that are outside the range established in the NCS or operating permit—PR. 5. Report all daily average temperature differences across the catalyst bed that are outside the range established in the NCS or operating permit—PR. |

| Control device | Parameters to be monitored ^a | Recordkeeping and reporting requirements for monitored parameters |
|--|---|--|
| Boiler or process heater with a design heat input capacity less than 44 megawatts and vent stream is not introduced with or as the primary fuel. | Firebox temperature ^b [63.127(a)(3)]. | 6. Report all operating days when insufficient monitoring data are collected. ^f 1. Continuous records during loading. 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS. 3. Record the daily average firebox temperature for each operating day. ^e 4. Report all daily average firebox temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient data are collected—PR. |
| Flare | Presence of a flame at the pilot light [63.127(a)(2)]. | 1. Hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour. 2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination—NCS. 3. Record the times and durations of all periods when all pilot flames are absent or the monitor is not operating. 4. Report the duration of all periods when all pilot flames of a flare are absent—PR. |
| Scrubber for halogenated vent streams (Note: Controlled by a combustion device other than a flare). | pH of scrubber effluent [63.127(a)(4)(i)], and. | 1. Continuous records during loading. 2. Record and report the pH of the scrubber effluent averaged over the full period of the performance test—NCS. 3. Record the daily average pH of the scrubber effluent for each operating day. ^e 4. Report all daily average pH values of the scrubber effluent that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |
| | Scrubber liquid and gas flow rates [63.127(a)(4)(ii)]. | 1. Continuous records during loading of scrubber liquid flow rate. 2. Record and report the scrubber liquid/gas ratio averaged over the full period of the performance test—NCS. 3. Record the daily average scrubber liquid/gas ratio for each operating day. ^e 4. Report all daily average scrubber liquid/gas ratios that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |
| Absorber ^h | Exit temperature of the absorbing liquid [63.127(b)(1)], and. | 1. Continuous records during loading. 2. Record and report the exit temperature of the absorbing liquid averaged over the full period of the performance test—NCS. 3. Record the daily average exit temperature of the absorbing liquid for each operating day. ^e 4. Report all daily average exit temperatures of the absorbing liquid that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |
| | Exit specific gravity [63.127(b)(1)] | 1. Continuous records during loading. 2. Record and report the exit specific gravity averaged over the full period of the performance test—NCS. 3. Record the daily average exit specific gravity for each operating day. ^e 4. Report all daily average exit specific gravity values that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |
| Condenser ^h | Exit (product side) temperature [63.127(b)(2)]. | 1. Continuous records during loading. 2. Record and report the exit temperature averaged over the full period of the performance test—NCS. 3. Record the daily average exit temperature for each operating day. ^e 4. Report all daily average exit temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |

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| Control device | Parameters to be monitored ^a | Recordkeeping and reporting requirements for monitored parameters |
|--|---|---|
| Carbon adsorber ^b | Total regeneration stream mass or volumetric or volumetric flow during carbon bed regeneration cycle(s) [63.127(b)(3)], and. Temperature of the carbon bed after regeneration [and within 15 minutes of completing any cooling cycle(s)] [63.127(b)(3)]. | 1. Record of total regeneration stream mass or volumetric flow for each carbon bed regeneration cycle. 2. Record and report the total regeneration stream mass or volumetric flow during each carbon bed regeneration cycle during the period of the performance test—NCS. 3. Report all carbon bed regeneration cycles when the total regeneration stream mass or volumetric flow is outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. 1. Records of the temperature of the carbon bed after each regeneration. 2. Record and report the temperature of the carbon bed after each regeneration during the period of the performance test—NCS. 3. Report all the carbon bed regeneration cycles during which the temperature of the carbon bed after regeneration is outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |
| All recovery devices (as an alternative to the above). | Concentration level or reading indicated by an organic monitoring device at the outlet of the recovery device [63.127(b)]. | 1. Continuous records during loading. 2. Record and report the concentration level or reading averaged over the full period of the performance test—NCS. 3. Record the daily average concentration level or reading for each operating day. ^d 4. Report all daily average concentration levels or readings that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR. |
| All control devices and vapor balancing systems. | Presence of flow diverted to the atmosphere from the control device [63.127(d)(1)] or. Monthly inspections of sealed valves [63.127(d)(2)]. | 1. Hourly records of whether the flow indicator was operating and whether a diversion was detected at any time during each hour. 2. Record and report the duration of all periods when the vent stream is diverted through a bypass line or the monitor is not operating—PR. 1. Records that monthly inspections were performed. 2. Record and report all monthly inspections that show the valves are moved to the diverting position or the seal has been changed. |

^aRegulatory citations are listed in brackets.
^bMonitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.
^c“Continuous records” is defined in §63.111 of this subpart.
^dNCS = Notification of Compliance Status described in §63.152 of this subpart.
^eThe daily average is the average of all recorded parameter values for the operating day. If all recorded values during an operating day are within the range established in the NCS or operating permit, a statement to this effect can be recorded instead of the daily average.
^fThe periodic reports shall include the duration of periods when monitoring data are not collected for each excursion as defined in §63.152(c)(2)(ii)(A) of this subpart.
^gPR = Periodic Reports described in §63.152 of this subpart.
^hAlternatively, these devices may comply with the organic monitoring device provisions listed at the end of this table under “All Recovery Devices.”

TABLE 8 TO SUBPART G OF PART 63—ORGANIC HAP'S SUBJECT TO THE WASTEWATER PROVISIONS FOR PROCESS UNITS AT NEW SOURCES

| Chemical name | CAS No. ^a |
|---|----------------------|
| Allyl chloride | 107051 |
| Benzene | 71432 |
| Butadiene (1,3-) | 106990 |
| Carbon disulfide | 75150 |
| Carbon tetrachloride | 56235 |
| Cumene | 98828 |
| Ethylbenzene | 100414 |
| Ethyl chloride (Chloroethane) | 75003 |
| Ethylidene dichloride (1,1-Dichloroethane). | 75343 |
| Hexachlorobutadiene | 87683 |
| Hexachloroethane | 67721 |
| Hexane | 100543 |

| Chemical name | CAS No. ^a |
|--|----------------------|
| Methyl bromide (Bromomethane) | 74839 |
| Methyl chloride (Chloromethane) | 74873 |
| Phosgene | 75445 |
| Tetrachloroethylene (Perchloroethylene) | 127184 |
| Toluene | 108883 |
| Trichloroethane (1,1,1-) (Methyl chloroform) | 71556 |
| Trichloroethylene | 79016 |
| Trimethylpentane (2,2,4-) | 540841 |
| Vinyl chloride (chloroethylene) | 75014 |
| Vinylidene chloride (1,1-Dichloroethylene). | 75354 |
| Xylene (m-) | 108383 |
| Xylene (p-) | 106423 |

^aCAS numbers refer to the Chemical Abstracts Service registry number assigned to specific compounds, isomers, or mixtures of compounds.
 NOTE: The list of organic HAP's on table 8 is a subset of the list of organic HAP's on table 9 of this subpart.

TABLE 9 TO SUBPART G OF PART 63—ORGANIC HAP'S SUBJECT TO THE WASTEWATER PROVISIONS FOR PROCESS UNITS AT NEW AND EXISTING SOURCES AND CORRESPONDING FRACTION REMOVED (FR) VALUES

| Chemical name | CAS No. ^a | Fr |
|---|----------------------|------|
| Acetaldehyde | 75070 | 0.95 |
| Acetonitrile | 75058 | 0.62 |
| Acetophenone | 98862 | 0.72 |
| Acrolein | 107028 | 0.96 |
| Acrylonitrile | 107131 | 0.96 |
| Allyl chloride | 107051 | 0.99 |
| Benzene | 71432 | 0.99 |
| Benzyl chloride | 100447 | 0.99 |
| Biphenyl | 92524 | 0.99 |
| Bromoform | 75252 | 0.99 |
| Butadiene (1,3-) | 106990 | 0.99 |
| Carbon disulfide | 75150 | 0.99 |
| Carbon tetrachloride | 56235 | 0.99 |
| Chlorobenzene | 108907 | 0.99 |
| Chloroform | 67663 | 0.99 |
| Chloroprene (2-Chloro-1,3-butadiene) | 126998 | 0.99 |
| Cumene | 98828 | 0.99 |
| Dichlorobenzene (p-) | 106467 | 0.99 |
| Dichloroethane (1,2-) (Ethylene dichloride) | 107062 | 0.99 |
| Dichloroethyl ether (Bis(2-chloroethyl)ether) | 111444 | 0.87 |
| Dichloropropene (1,3-) | 542756 | 0.99 |
| Diethyl sulfate | 64675 | 0.90 |
| Dimethyl sulfate | 77781 | 0.53 |
| Dimethylaniline (N,N-) | 121697 | 0.99 |
| Dimethylhydrazine (1,1-) | 57147 | 0.57 |
| Dinitrophenol (2,4-) | 51285 | 0.99 |
| Dinitrotoluene (2,4-) | 121142 | 0.38 |
| Dioxane (1,4-) (1,4-Diethyleneoxide) | 123911 | 0.37 |
| Epichlorohydrin(1-Chloro-2,3-epoxypropane) | 106898 | 0.91 |
| Ethyl acrylate | 140885 | 0.99 |
| Ethylbenzene | 100414 | 0.99 |
| Ethyl chloride (Chloroethane) | 75003 | 0.99 |
| Ethylene dibromide (Dibromomethane) | 106934 | 0.99 |
| Ethylene glycol dimethyl ether | 110714 | 0.90 |
| Ethylene glycol monobutyl ether acetate | 112072 | 0.76 |
| Ethylene glycol monomethyl ether acetate | 110496 | 0.28 |
| Ethylene oxide | 75218 | 0.98 |
| Ethylidene dichloride (1,1-Dichloroethane) | 75343 | 0.99 |
| Hexachlorobenzene | 118741 | 0.99 |
| Hexachlorobutadiene | 87683 | 0.99 |
| Hexachloroethane | 67721 | 0.99 |
| Hexane | 110543 | 0.99 |
| Isophorone | 78591 | 0.60 |
| Methanol | 67561 | 0.31 |
| Methyl bromide (Bromomethane) | 74839 | 0.99 |
| Methyl chloride (Chloromethane) | 74873 | 0.99 |
| Methyl isobutyl ketone (Hexone) | 108101 | 0.99 |
| Methyl methacrylate | 80626 | 0.98 |
| Methyl tert-butyl ether | 1634044 | 0.99 |
| Methylene chloride (Dichloromethane) | 75092 | 0.99 |
| Naphthalene | 91203 | 0.99 |
| Nitrobenzene | 98953 | 0.80 |
| Nitropropane (2-) | 79469 | 0.98 |
| Phosgene | 75445 | 0.99 |
| Propionaldehyde | 123386 | 0.99 |
| Propylene dichloride (1,2-Dichloropropane) | 78875 | 0.99 |
| Propylene oxide | 75569 | 0.99 |
| Styrene | 100425 | 0.99 |
| Tetrachloroethane (1,1,2,2-) | 79345 | 0.99 |
| Tetrachloroethylene (Perchloroethylene) | 127184 | 0.99 |
| Toluene | 108883 | 0.99 |
| Toluidine (o-) | 95534 | 0.44 |
| Trichlorobenzene (1,2,4-) | 120821 | 0.99 |
| Trichloroethane (1,1,1-) (Methyl chloroform) | 71556 | 0.99 |
| Trichloroethane (1,1,2-) (Vinyl trichloride) | 79005 | 0.99 |
| Trichloroethylene | 79016 | 0.99 |
| Trichlorophenol (2,4,5-) | 95954 | 0.96 |
| Triethylamine | 121448 | 0.99 |
| Trimethylpentane (2,2,4-) | 540841 | 0.99 |

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Pt. 63, Subpt. G, Table 11

| Chemical name | CAS No. ^a | Fr |
|--|----------------------|------|
| Vinyl acetate | 108054 | 0.99 |
| Vinyl chloride (Chloroethylene) | 75014 | 0.99 |
| Vinylidene chloride (1,1-Dichloroethylene) | 75354 | 0.99 |
| Xylene (m-) | 108383 | 0.99 |
| Xylene (o-) | 95476 | 0.99 |
| Xylene (p-) | 106423 | 0.99 |

^a CAS numbers refer to the Chemical Abstracts Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

[59 FR 19468, Apr. 22, 1994, as amended at 71 FR 76615, Dec. 21, 2006]

TABLE 10 TO SUBPART G OF PART 63—WASTEWATER—COMPLIANCE OPTIONS FOR WASTEWATER TANKS

| Capacity (m ³) | Maximum true vapor pressure (kPa) | Control requirements |
|----------------------------|-----------------------------------|----------------------|
| <75 | | § 63.133(a)(1) |
| "75 and <151 | <13.1 | § 63.133(a)(1) |
| | "13.1 | § 63.133(a)(2) |
| "151 | <5.2 | § 63.133(a)(1) |
| | "5.2 | § 63.133(a)(2) |

TABLE 11 TO SUBPART G OF PART 63—WASTEWATER—INSPECTION AND MONITORING REQUIREMENTS FOR WASTE MANAGEMENT UNITS

| To comply with | Inspection or monitoring requirement | Frequency of inspection or monitoring | Method |
|--|---|--|---|
| Tanks: | | | |
| 63.133(b)(1) | Inspect fixed roof and all openings for leaks | Initially Semi-annually .. | Visual. |
| 63.133(c) | Inspect floating roof in accordance with §§ 63.120 (a)(2) and (a)(3). | See § 63.120 (a)(2) and (a)(3). | Visual. |
| 63.133(d) | Measure floating roof seal gaps in accordance with §§ 63.120 (b)(2)(i) through (b)(4). —Primary seal gaps | Once every 5 years Initially Annually. | See § 63.120 (b)(2)(i) through (b)(4). |
| | —Secondary seal gaps. | | |
| 63.133(f) 63.133(g) | Inspect wastewater tank for control equipment failures and improper work practices. | Initially Semi-annually .. | Visual. |
| Surface impoundments: | | | |
| 63.134(b)(1) | Inspect cover and all openings for leaks | Initially Semi-annually .. | Visual. |
| 63.134(c) | Inspect surface impoundment for control equipment failures and improper work practices. | Initially Semi-annually .. | Visual. |
| Containers: | | | |
| 63.135(b)(1), 63.135(b)(2) (ii). | Inspect cover and all openings for leaks | Initially Semi-annually .. | Visual. |
| 63.135(d)(1) | Inspect enclosure and all openings for leaks | Initially Semi-annually .. | Visual. |
| 63.135(e) | Inspect container for control equipment failures and improper work practices. | Initially Semi-annually .. | Visual. |
| Individual Drain Systems^a: | | | |
| 63.136(b)(1) | Inspect cover and all openings to ensure there are no gaps, cracks, or holes. | Initially Semi-annually .. | Visual. |
| 63.136(c) | Inspect individual drain system for control equipment failures and improper work practices. | Initially Semi-annually .. | Visual. |
| 63.136(e)(1) | Verify that sufficient water is present to properly maintain integrity of water seals. | Initially Semi-annually .. | Visual. |
| 63.136(e)(2), 63.136(f)(1). | Inspect all drains using tightly-fitted caps or plugs to ensure caps and plugs are in place and properly installed. | Initially Semi-annually .. | Visual. |
| 63.136(f)(2) | Inspect all junction boxes to ensure covers are in place and have no visible gaps, cracks, or holes. | Initially Semi-annually .. | Visual or smoke test or other means as specified. |
| 63.136(f)(3) | Inspect unburied portion of all sewer lines for cracks and gaps. | Initially Semi-annually .. | Visual. |
| Oil-water separators: | | | |
| 63.137(b)(1) | Inspect fixed roof and all openings for leaks | Initially Semi-annually .. | Visual. |
| 63.137(c) | Measure floating roof seal gaps in accordance with 40 CFR 60.696(d)(1). —Primary seal gaps | Initially ^b | See 40 CFR 60.696(d)(1). |
| | | Once every 5 years. | |

Pt. 63, Subpt. G, Table 12

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| To comply with | Inspection or monitoring requirement | Frequency of inspection or monitoring | Method |
|------------------------------------|---|--|---------|
| 63.137(c) 63.137(d) | —Secondary seal gaps Inspect oil-water separator for control equipment failures and improper work practices. | Initially ^b Annually. Initially Semi-annually .. | Visual. |

^a As specified in § 63.136(a), the owner or operator shall comply with either the requirements of § 63.136 (b) and (c) or § 63.136 (e) and (f).

^b Within 60 days of installation as specified in § 63.137(c).

TABLE 12 TO SUBPART G OF PART 63—MONITORING REQUIREMENTS FOR TREATMENT PROCESSES

| To comply with | Parameters to be monitored | Frequency | Methods |
|--|--|--|--|
| 1. Required mass removal of Table 8 and/or Table 9 compound(s) from wastewater treated in a properly operated biological treatment unit, § 63.138(f), and § 63.138(g). | Appropriate parameters as specified in § 63.143(c) and approved by permitting authority. | Appropriate frequency as specified in § 63.143 and approved by permitting authority. | Appropriate methods as specified in § 63.143 and as approved by permitting authority. |
| 2. Steam stripper | (i) Steam flow rate; and (ii) Wastewater feed mass flow rate; and (iii) Wastewater feed temperature; or (iv) Column operating temperature | Continuously Continuously Continuously | Integrating steam flow monitoring device equipped with a continuous recorder. Liquid flow meter installed at stripper influent and equipped with a continuous recorder. (A) Liquid temperature monitoring device installed at stripper influent and equipped with a continuous or recorder; or (B) Liquid temperature monitoring device installed in the column top tray liquid phase (i.e., at the downcomer) and equipped with a continuous recorder. |
| 3. Other treatment processes or alternative monitoring parameters to those listed in item 2 of this table. | Other parameters may be monitored upon approval from the Administrator with the requirements specified in § 63.151(f). | | |

TABLE 13 TO SUBPART G OF PART 63—WASTEWATER—MONITORING REQUIREMENTS FOR CONTROL DEVICES

| Control Device | Monitoring equipment required | Parameters to be monitored | Frequency |
|----------------------|---|--|--|
| All control devices. | 1. Flow indicator installed at all bypass lines to the atmosphere and equipped with continuous recorder ^b or. | 1. Presence of flow diverted from the control device to the atmosphere or. | Hourly records of whether the flow indicator was operating and whether a diversion was detected at any time during each hour |
| | 2. Valves sealed closed with car-seal or lock-and-key configuration. | 2. Monthly inspections of sealed valves. | Monthly. |
| Thermal Incinerator. | Temperature monitoring device installed in firebox or in ductwork immediately downstream of firebox ^a and equipped with a continuous recorder ^b . | Firebox temperature | Continuous. |

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Pt. 63, Subpt. G, Table 15

| Control Device | Monitoring equipment required | Parameters to be monitored | Frequency |
|--|--|--|---|
| Catalytic Incinerator. | Temperature monitoring device installed in gas stream immediately before and after catalyst bed and equipped with a continuous recorder ^b . | 1. Temperature upstream of catalyst bed <i>or</i> . 2. Temperature difference across catalyst bed. | Continuous. |
| Flare | Heat sensing device installed at the pilot light and equipped with a continuous recorder ^a . | Presence of a flame at the pilot light. | Hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour. |
| Boiler or process heater <44 megawatts and vent stream is not mixed with the primary fuel. | Temperature monitoring device installed in firebox ^a and equipped with continuous recorder ^b . | Combustion temperature | Continuous. |
| Condenser | Temperature monitoring device installed at condenser exit and equipped with continuous recorder ^b . | Condenser exit (product side) temperature. | Continuous. |
| Carbon adsorber (regenerative). | Integrating regeneration stream flow monitoring device having an accuracy of ±10 percent, <i>and</i> , Carbon bed temperature monitoring device. | Total regeneration stream mass or volumetric flow during carbon bed regeneration cycle(s). Temperature of carbon bed after regeneration [and within 15 minutes of completing any cooling cycle(s)]. | For each regeneration cycle, record the total regeneration stream mass or volumetric flow. For each regeneration cycle and within 15 minutes of completing any cooling cycle, record the carbon bed temperature. |
| Carbon adsorber (Non-regenerative). | Organic compound concentration monitoring device. ^c | Organic compound concentration of adsorber exhaust. | Daily or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. |
| Alternative monitoring parameters. | Other parameters may be monitored upon approval from the Administrator in accordance with the requirements in §63.143(e)(3). | | |

^a Monitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.

^b "Continuous recorder" is defined in §63.111 of this subpart.

^c As an alternative to conducting this monitoring, an owner or operator may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system.

TABLES 14–14B TO SUBPART G OF PART 63 [RESERVED]

TABLE 15 TO SUBPART G OF PART 63—WASTEWATER—INFORMATION ON TABLE 8 AND/OR TABLE 9 COMPOUNDS TO BE SUBMITTED WITH NOTIFICATION OF COMPLIANCE STATUS FOR PROCESS UNITS AT NEW AND/OR EXISTING SOURCES^{A,B}

| Process unit identification code ^c | Stream identification code | Concentration of table 8 and/or table 9 compound(s) (ppmw) ^{d,e} | Flow rate (lpm) ^{e,f} | Group 1 or Group 2 ^g | Compliance approach ^h | Treatment process(es) identification ⁱ | Waste management unit(s) identification | Intended control device |
|---|----------------------------|---|--------------------------------|---------------------------------|----------------------------------|---|---|-------------------------|
| | | | | | | | | |

^a The information specified in this table must be submitted; however, it may be submitted in any format. This table presents an example format.

^b Other requirements for the NCS are specified in §63.152(b) of this subpart.

^c Also include a description of the process unit (e.g., benzene process unit).

^d Except when §63.132(e) is used, annual average concentration as specified in §63.132 (c) or (d) and §63.144.

^e When §63.132(e) is used, indicate the wastewater stream is a designated Group 1 wastewater stream.

^f Except when §63.132(e) is used, annual average flow rate as specified in §63.132 (c) or (d) and in §63.144.

^g Indicate whether stream is Group 1 or Group 2. If Group 1, indicate whether it is Group 1 for Table 8 or Table 9 compounds or for both Table 8 and Table 9 compounds.

^h Cite §63.138 compliance option used.

TABLE 16 TO SUBPART G OF PART 63
[RESERVED]

TABLE 17 TO SUBPART G OF PART 63—INFORMATION FOR TREATMENT PROCESSES TO BE SUBMITTED WITH NOTIFICATION OF COMPLIANCE STATUS ^{A,B}

| Treatment process identification ^c | Description ^d | Wastewater stream(s) treated ^e | Monitoring parameters ^f |
|---|--------------------------|---|------------------------------------|
|---|--------------------------|---|------------------------------------|

^a The information specified in this table must be submitted; however, it may be submitted in any format. This table presents an example format.
^b Other requirements for the Notification of Compliance Status are specified in § 63.152(b) of this Subpart.
^c Identification codes should correspond to those listed in Table 15.
^d Description of treatment process.
^e Stream identification code for each wastewater stream treated by each treatment unit. Identification codes should correspond to entries listed in Table 15.
^f Parameter(s) to be monitored or measured in accordance with Table 12 and § 63.143.

TABLE 18 TO SUBPART G OF PART 63—INFORMATION FOR WASTE MANAGEMENT UNITS TO BE SUBMITTED WITH NOTIFICATION OF COMPLIANCE STATUS ^{A,B}

| Waste management unit identification ^c | Description ^d | Wastewater stream(s) received or managed ^e |
|---|--------------------------|---|
|---|--------------------------|---|

^a The information specified in this table must be submitted; however, it may be submitted in any format. This table presents an example format.
^b Other requirements for the Notification of Compliance Status are specified in § 63.152(b) of this Subpart.
^c Identification codes should correspond to those listed in Table 15.
^d Description of waste management unit.
^e Stream identification code for each wastewater stream received or managed by each waste management unit. Identification codes should correspond to entries listed in Table 15.

TABLE 19 TO SUBPART G OF PART 63—WASTEWATER—INFORMATION ON RESIDUALS TO BE SUBMITTED WITH NOTIFICATION OF COMPLIANCE STATUS ^{A,B}

| Residual identification ^c | Residual description ^d | Wastewater stream identification ^e | Treatment process ^f | Fate ^g | Control device identification code | Control device description ^h | Control device efficiency ⁱ |
|--------------------------------------|-----------------------------------|---|--------------------------------|-------------------|------------------------------------|---|--|
|--------------------------------------|-----------------------------------|---|--------------------------------|-------------------|------------------------------------|---|--|

^a The information specified in this table must be submitted; however, it may be submitted in any format. This table presents an example format.
^b Other requirements for the Notification of Compliance Status are specified in § 63.152(b) of this subpart.
^c Name or identification code of residual removed from Group 1 wastewater stream.
^d Description of residual (e.g., steam stripper A-13 overhead condensates).
^e Identification of stream from which residual is removed.
^f Treatment process from which residual originates.
^g Indicate whether residual is sold, returned to production process, or returned to waste management unit or treatment process; or whether HAP mass of residual is destroyed by 99 percent.
^h If the fate of the residual is such that the HAP mass is destroyed by 99 percent, give description of device used for HAP destruction.
ⁱ If the fate of the residual is such that the HAP mass is destroyed by 99 percent, provide an estimate of control device efficiency and attach substantiation in accordance with § 63.146(b)(9) of this subpart.

TABLE 20 TO SUBPART G OF PART 63—WASTEWATER—PERIODIC REPORTING REQUIREMENTS FOR CONTROL DEVICES SUBJECT TO § 63.139 USED TO COMPLY WITH §§ 63.13 THROUGH 63.139

| Control device | Reporting requirements |
|---------------------------------|--|
| (1) Thermal Incinerator | Report all daily average ^a temperatures that are outside the range established in the NCS ^b or operating permit and all operating days when insufficient monitoring data are collected. ^c |
| (2) Catalytic Incinerator | (i) Report all daily average ^a upstream temperatures that are outside the range established in the NCS ^b or operating permit. |

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| Control device | Reporting requirements |
|---|---|
| (3) Boiler or Process Heater with a design heat input capacity less than 44 megawatts and vent stream is not mixed with the primary fuel. | (ii) Report all daily average ^a temperature differences across the catalyst bed that are outside the range established in the NCS ^b or operating permit. (iii) Report all operating days when insufficient monitoring data are collected. ^c Report all daily average ^a firebox temperatures that are outside the range established in the NCS ^b or operating permit and all operating days when insufficient monitoring data are collected. ^c |
| (4) Flare | Report the duration of all periods when all pilot flames are absent. |
| (5) Condenser | Report all daily average ^a exit temperatures that are outside the range established in the NCS ^b or operating permit and all operating days when insufficient monitoring data are collected. ^c |
| (6) Carbon Adsorber (Regenerative) | (i) Report all carbon bed regeneration cycles when the total regeneration stream mass or volumetric flow is outside the range established in the NCS ^b or operating permit. (ii) Report all carbon bed regeneration cycles during which the temperature of the carbon bed after regeneration is outside the range established in the NCS ^b or operating permit. (iii) Report all operating days when insufficient monitoring data are collected. ^c |
| (7) Carbon Adsorber (Non-Regenerative) .. | (i) Report all operating days when inspections not done according to the schedule developed as specified in table 13 of this subpart. (ii) Report all operating days when carbon has not been replaced at the frequency specified in table 13 of this subpart. |
| (8) All Control Devices | (i) Report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating, or (ii) Report all monthly inspections that show the valves are moved to the diverting position or the seal has been changed. |

^aThe daily average is the average of all values recorded during the operating day, as specified in § 63.147(d).

^bNCS = Notification of Compliance Status described in § 63.152.

^cThe periodic reports shall include the duration of periods when monitoring data are not collected for each excursion as defined in § 63.152(c)(2)(ii)(A).

TABLE 21 TO SUBPART G OF PART 63—
AVERAGE STORAGE TEMPERATURE
(T_s) AS A FUNCTION OF TANK PAINT
COLOR

| Tank Color | Average Storage Temperature (T _s) |
|-------------|---|
| White | T _A a = 0 |

| Tank Color | Average Storage Temperature (T _s) |
|----------------|---|
| Aluminum | T _A = 2.5 |
| Gray | T _A = 3.5 |
| Black | T _A = 5.0 |

^a T_A is the average annual ambient temperature in degrees Fahrenheit.

TABLE 22 TO SUBPART G OF PART 63—PAINT FACTORS FOR FIXED ROOF TANKS

| Tank color | | Paint factors (F _p) Paint Condition | |
|---------------------------|---------------------------|--|------|
| Roof | Shell | Good | Poor |
| White | White | 1.00 | 1.15 |
| Aluminum (specular) | White | 1.04 | 1.18 |
| White | Aluminum (specular) | 1.16 | 1.24 |
| Aluminum (specular) | Aluminum (specular) | 1.20 | 1.29 |
| White | Aluminum (diffuse) | 1.30 | 1.38 |
| Aluminum (diffuse) | Aluminum (diffuse) | 1.39 | 1.46 |
| White | Gray | 1.30 | 1.38 |
| Light gray | Light gray | 1.33 | 1.44 |
| Medium gray | Medium gray | 1.40 | 1.58 |

TABLE 23 TO SUBPART G OF PART 63—AVERAGE CLINGAGE FACTORS (C)^A

| Liquid | Shell condition | | |
|-------------------------------|-------------------------|------------|--------------|
| | Light rust ^b | Dense rust | Gunite lined |
| Gasoline | 0.0015 | 0.0075 | 0.15 |
| Single component stocks | 0.0015 | 0.0075 | 0.15 |

| Liquid | Shell condition | | |
|-----------------|-------------------------|------------|-------------|
| | Light rust ^b | Dense rust | Gunitelined |
| Crude oil | 0.0060 | 0.030 | 0.60 |

^a Units for average clingage factors are barrels per 1,000 square feet.
^b If no specific information is available, these values can be assumed to represent the most common condition of tanks currently in use.

TABLE 24 TO SUBPART G OF PART 63—
 TYPICAL NUMBER OF COLUMNS AS A
 FUNCTION OF TANK DIAMETER FOR
 INTERNAL FLOATING ROOF TANKS
 WITH COLUMN SUPPORTED FIXED
 ROOFS^A

| Tank diameter range (D in feet) | Typical number of columns, (N _c) |
|---------------------------------|--|
| 0 < D ≤ 85 | 1 |
| 85 < D ≤ 100 | 6 |
| 100 < D ≤ 120 | 7 |
| 120 < D ≤ 135 | 8 |
| 135 < D ≤ 150 | 9 |
| 150 < D ≤ 170 | 16 |
| 170 < D ≤ 190 | 19 |
| 190 < D ≤ 220 | 22 |
| 220 < D ≤ 235 | 31 |
| 235 < D ≤ 270 | 37 |
| 270 < D ≤ 275 | 43 |
| 275 < D ≤ 290 | 49 |
| 290 < D ≤ 330 | 61 |
| 330 < D ≤ 360 | 71 |
| 360 < D ≤ 400 | 81 |

^a Data in this table should not supersede information on actual tanks.

TABLE 25 TO SUBPART G OF PART 63—
 EFFECTIVE COLUMN DIAMETER (F_c)

| Column type | F _c (feet) |
|---|-----------------------|
| 9-inch by 7-inch built-up columns | 1.1 |
| 8-inch-diameter pipe columns | 0.7 |
| No construction details known | 1.0 |

TABLE 26 TO SUBPART G OF PART 63—
 SEAL RELATED FACTORS FOR INTER-
 NAL FLOATING ROOF VESSELS

| Seal type | K _s | n |
|--|----------------|---|
| Liquid mounted resilient seal: | | |
| Primary seal only | 3.0 | 0 |
| With rim-mounted secondary seal ^a | 1.6 | 0 |
| Vapor mounted resilient seal: | | |
| Primary seal only | 6.7 | 0 |
| With rim-mounted secondary seal ^a | 2.5 | 0 |

^a If vessel-specific information is not available about the secondary seal, assume only a primary seal is present.

TABLE 27 TO SUBPART G OF PART 63—
 SUMMARY OF INTERNAL FLOATING
 DECK FITTING LOSS FACTORS (K_F)
 AND TYPICAL NUMBER OF FITTINGS
 (N_F)

| Deck fitting type | Deck fitting loss factor (K _F) ^a | Typical number of fittings (N _F) |
|---|---|--|
| Access hatch | | 1. |
| Bolted cover, gasketed. | 1.6 | |
| Unbolted cover, gasketed. | 11 | |
| Unbolted cover, ungasketed. | ^b 25 | |
| Automatic gauge float well. | | 1. |
| Bolted cover, gasketed. | 5.1 | |
| Unbolted cover, gasketed. | 15 | |
| Unbolted cover, ungasketed. | ^b 28 | |
| Column well | | (see Table 24). |
| Builtup column-sliding cover, gasketed. | 33 | |
| Builtup column-sliding cover, ungasketed. | ^b 47 | |
| Pipe column-flexible fabric sleeve seal. | 19 | |
| Pipe column-sliding cover, gasketed. | 32 | |
| Pipe column-sliding cover, ungasketed. | | |
| Ladder well | | 1. |
| Sliding cover, gasketed. | 56 | |
| Sliding cover, ungasketed. | ^b 76 | |
| Roof leg or hanger well. | | (5+D/10+D ² /600) ^c . |
| Adjustable | ^b 7.9 | |
| Fixed | 0 | |
| Sample pipe or well | | 1. |
| Slotted pipe-sliding cover, gasketed. | 44 | |
| Slotted pipe-sliding cover, ungasketed. | 57 | |

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| Deck fitting type | Deck fitting loss factor (K _F) ^a | Typical number of fittings (N _F) |
|---|---|--|
| Sample well-slit fabric seal, 10 percent open area. | ^b 12 | (D ² /125) ^c . |
| Stub drain, 1-in diameter ^d . | 1.2 | |
| Vacuum breaker | 1. | |
| Weighted mechanical actuation, gasketed. | ^b 0.7 | |
| Weighted mechanical actuation, ungasketed. | 0.9 | |

^a Units for K_F are pound-moles per year.
^b If no specific information is available, this value can be assumed to represent the most common/typical deck fittings currently in use.
^c D=Tank diameter (feet).
^d Not used on welded contact internal floating decks.

TABLE 28 TO SUBPART G OF PART 63—DECK SEAM LENGTH FACTORS^A (S_D) FOR INTERNAL FLOATING ROOF TANKS

| Deck construction | Typical deck seam length factor |
|--|---------------------------------|
| Continuous sheet construction ^b : | |
| 5-foot wide sheets | 0.2 ^c |
| 6-foot wide sheets | 0.17 |
| 7-foot wide sheets | 0.14 |
| Panel construction ^d : | |
| 5 × 7.5 feet rectangular | 0.33 |
| 5 × 12 feet rectangular | 0.28 |

^a Deck seam loss applies to bolted decks only. Units for S_D are feet per square feet.
^b S_D=1/W, where W = sheet width (feet).
^c If no specific information is available, these factors can be assumed to represent the most common bolted decks currently in use.
^d S_D=(L+W)/LW, where W = panel width (feet), and L = panel length (feet).

TABLE 29 TO SUBPART G OF PART 63—SEAL RELATED FACTORS FOR EXTERNAL FLOATING ROOF VESSELS

| Seal type | Welded ves-sels | | Riveted ves-sels | |
|--|-----------------|-----|------------------|-----|
| | K _S | N | K _S | N |
| Metallic shoe seal: | | | | |
| Primary seal only | 1.2 | 1.5 | 1.3 | 1.5 |
| With shoe-mounted secondary seal | 0.8 | 1.2 | 1.4 | 1.2 |
| With rim-mounted secondary seal | 0.2 | 1.0 | 0.2 | 1.6 |
| Liquid mounted resilient seal: | | | | |
| Primary seal only | 1.1 | 1.0 | ^a NA | NA |
| With weather shield | 0.8 | 0.9 | NA | NA |
| With rim-mounted secondary seal | 0.7 | 0.4 | NA | NA |
| Vapor mounted resilient seal: | | | | |
| Primary seal only | 1.2 | 2.3 | NA | NA |
| With weather shield | 0.9 | 2.2 | NA | NA |
| With rim-mounted secondary seal | 0.2 | 2.6 | NA | NA |

^a NA=Not applicable.

TABLE 30 TO SUBPART G OF PART 63—ROOF FITTING LOSS FACTORS, K_{Fa}, K_{Fb}, AND M, ^A AND TYPICAL NUMBER OF FITTINGS, N_T

| Fitting type and construction details | Loss factors ^b | | | Typical number of fittings, N _T |
|---|------------------------------|--|-------------------|--|
| | K _{Fa} (lb-mole/yr) | K _{Fb} (lb-mole/[mi/hr] ^m -yr) | m (dimensionless) | |
| Access hatch (24-in-diameter well) | | | | |
| Bolted cover, gasketed | 0 | 0 | ^c 0 | 1. |
| Unbolted cover, ungasketed | 2.7 | 7.1 | 1.0 | |
| Unbolted cover, gasketed | 2.9 | 0.41 | 1.0 | |
| Unslotted guide-pole well (8-in-diameter unslotted pole, 21-in-diameter well) | | | | |
| Ungasketed sliding cover | 0 | 67 | ^c 0.98 | 1. |
| Gasketed sliding cover | 0 | 3.0 | 1.4 | |
| Slotted guide-pole/sample well (8-in-diameter unslotted pole, 21-in-diameter well) | | | | |
| Ungasketed sliding cover, without float | 0 | 310 | 1.2 | ^(d) . |
| Ungasketed sliding cover, with float | 0 | 29 | 2.0 | |
| Gasketed sliding cover, without float | 0 | 260 | 1.2 | |
| Gasketed sliding cover, with float | 0 | 8.5 | 1.4 | |
| Gauge-float well (20-inch diameter) | | | | |
| Unbolted cover, ungasketed | 2.3 | 5.9 | ^c 1.0 | 1. |
| Unbolted cover, gasketed | 2.4 | 0.34 | 1.0 | |

| Fitting type and construction details | Loss factors ^b | | | Typical number of fittings, N _T |
|---|------------------------------|--|-------------------|--|
| | K _{Fa} (lb-mole/yr) | K _{Fb} (lb-mole/[mi/hr] ^m -yr) | m (dimensionless) | |
| Bolted cover, gasketed | 0 | 0 | 0 | 1. |
| Gauge-hatch/sample well (8-inch diameter) | 0 | 0 | 0 | |
| Weighted mechanical actuation, gasketed. | 0.95 | 0.14 | ^c 1.0 | |
| Weighted mechanical actuation, ungasketed. | 0.91 | 2.4 | 1.0 | N _{F6} (Table 31). |
| Vacuum breaker (10-in-diameter well) | 0 | 0 | 0 | |
| Weighted mechanical actuation, gasketed. | 1.2 | 0.17 | ^c 1.0 | |
| Weighted mechanical actuation, ungasketed. | 1.2 | 3.0 | 1.0 | N _{F7} (Table 31). N _{F8} (Table 32 ^f). |
| Roof drain (3-in-diameter) | 0 | 7.0 | ^e 1.4 | |
| Open | 0 | 7.0 | ^e 1.4 | |
| 90 percent closed | 0.51 | 0.81 | 1.0 | N _{F8} (Table 32 ^f). |
| Roof leg (3-in-diameter) | 0 | 0 | 0 | |
| Adjustable, pontoon area | 1.5 | 0.20 | ^c 1.0 | |
| Adjustable, center area | 0.25 | 0.067 | ^c 1.0 | |
| Adjustable, double-deck roofs | 0.25 | 0.067 | 1.0 | N _{F8} (Table 32 ^f). |
| Fixed | 0 | 0 | 0 | |
| Roof leg (2½-in-diameter) | 0 | 0 | 0 | |
| Adjustable, pontoon area | 1.7 | 0 | 0 | |
| Adjustable, center area | 0.41 | 0 | 0 | 1 ^g . |
| Adjustable, double-deck roofs | 0.41 | 0 | 0 | |
| Fixed | 0 | 0 | 0 | |
| Rim vent (6-in-diameter) | 0 | 0 | 0 | |
| Weighted mechanical actuation, gasketed. | 0.71 | 0.10 | ^c 1.0 | 1 ^g . |
| Weighted mechanical actuation, ungasketed. | 0.68 | 1.8 | 1.0 | |

^aThe roof fitting loss factors, K_{Fa}, K_{Fb}, and m, may only be used for wind speeds from 2 to 15 miles per hour.
^bUnit abbreviations are as follows: lb = pound; mi = miles; hr = hour; yr = year.
^cIf no specific information is available, this value can be assumed to represent the most common or typical roof fittings currently in use.
^dA slotted guide-pole/sample well is an optional fitting and is not typically used.
^eRoof drains that drain excess rainwater into the product are not used on pontoon floating roofs. They are, however, used on double-deck floating roofs and are typically left open.
^fThe most common roof leg diameter is 3 inches. The loss factors for 2½-inch diameter roof legs are provided for use if this smaller size roof is used on a particular floating roof.
^gRim vents are used only with mechanical-shoe primary seals.

TABLE 31 TO SUBPART G OF PART 63—
TYPICAL NUMBER OF VACUUM BREAKERS, N_{F6} AND ROOF DRAINS, ^A N_{F7}

| Tank diameter D (feet) ^b | No. of vacuum breakers, N _{F6} | | No. of roof drains, N _{F7} double-deck roof ^c |
|-------------------------------------|---|------------------|---|
| | Pontoon roof | Double-deck roof | |
| 50 | 1 | 1 | 1 |
| 100 | 1 | 1 | 1 |
| 150 | 2 | 2 | 2 |
| 200 | 3 | 2 | 3 |
| 250 | 4 | 3 | 5 |
| 300 | 5 | 3 | 7 |
| 350 | 6 | 4 | ^d |
| 400 | 7 | 4 | ^d |

^aThis table should not supersede information based on actual tank data.
^bIf the actual diameter is between the diameters listed, the closest diameter listed should be used. If the actual diameter is midway between the diameters listed, the next larger diameter should be used.
^cRoof drains that drain excess rainwater into the product are not used on pontoon floating roofs. They are, however, used on double-deck floating roofs, and are typically left open.

^dFor tanks more than 300 feet in diameter, actual tank data or the manufacturer's recommendations may be needed for the number of roof drains.

TABLE 32 TO SUBPART G OF PART 63—
TYPICAL NUMBER OF ROOF LEGS, ^A N_{F8}

| Tank diameter D (feet) ^b | Pontoon roof | | No. of legs on double-deck roof |
|-------------------------------------|---------------------|--------------------|---------------------------------|
| | No. of pontoon legs | No. of center legs | |
| 30 | 4 | 2 | 6 |
| 40 | 4 | 4 | 7 |
| 50 | 6 | 6 | 8 |
| 60 | 9 | 7 | 10 |
| 70 | 13 | 9 | 13 |
| 80 | 15 | 10 | 16 |
| 90 | 16 | 12 | 20 |
| 100 | 17 | 16 | 25 |
| 110 | 18 | 20 | 29 |
| 120 | 19 | 24 | 34 |
| 130 | 20 | 28 | 40 |
| 140 | 21 | 33 | 46 |
| 150 | 23 | 38 | 52 |
| 160 | 26 | 42 | 58 |
| 170 | 27 | 49 | 66 |
| 180 | 28 | 56 | 74 |

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| Tank diameter D (feet) ^b | Pontoon roof | | No. of legs on double-deck roof | Tank diameter D (feet) ^b | Pontoon roof | | No. of legs on double-deck roof |
|-------------------------------------|---------------------|--------------------|---------------------------------|-------------------------------------|---------------------|--------------------|---------------------------------|
| | No. of pontoon legs | No. of center legs | | | No. of pontoon legs | No. of center legs | |
| 190 | 29 | 62 | 82 | 330 | 40 | 190 | 240 |
| 200 | 30 | 69 | 90 | 340 | 41 | 202 | 255 |
| 210 | 31 | 77 | 98 | 350 | 42 | 213 | 270 |
| 220 | 32 | 83 | 107 | 360 | 44 | 226 | 285 |
| 230 | 33 | 92 | 115 | 370 | 45 | 238 | 300 |
| 240 | 34 | 101 | 127 | 380 | 46 | 252 | 315 |
| 250 | 34 | 109 | 138 | 390 | 47 | 266 | 330 |
| 260 | 36 | 118 | 149 | 400 | 48 | 281 | 345 |
| 270 | 36 | 128 | 162 | | | | |
| 280 | 37 | 138 | 173 | | | | |
| 290 | 38 | 148 | 186 | | | | |
| 300 | 38 | 156 | 200 | | | | |
| 310 | 39 | 168 | 213 | | | | |
| 320 | 39 | 179 | 226 | | | | |

^aThis table should not supersede information based on actual tank data.
^bIf the actual diameter is between the diameters listed, the closest diameter listed should be used. If the actual diameter is midway between the diameters listed, the next larger diameter should be used.

TABLE 33 TO SUBPART G OF PART 63—SATURATION FACTORS

| Cargo carrier | Mode of operation | S factor |
|--------------------------------|--|----------|
| Tank trucks and rail tank cars | Submerged loading of a clean cargo tank | 0.50 |
| | Submerged loading: dedicated normal service | 0.60 |
| | Submerged loading: dedicated vapor balance service | 1.00 |
| | Splash loading of a clean cargo tank | 1.45 |
| | Splash loading: dedicated normal service | 1.45 |
| | Splash loading: dedicated vapor balance service | 1.00 |

TABLE 34 TO SUBPART G OF PART 63—FRACTION MEASURED (F_m) AND FRACTION EMITTED (F_e) FOR HAP COMPOUNDS IN WASTEWATER STREAMS

| Chemical name | CAS Number ^a | F _m | F _e |
|--|-------------------------|----------------|----------------|
| Acetaldehyde | 75070 | 1.00 | 0.48 |
| Acetonitrile | 75058 | 0.99 | 0.36 |
| Acetophenone | 98862 | 0.31 | 0.14 |
| Acrolein | 107028 | 1.00 | 0.43 |
| Acrylonitrile | 107131 | 1.00 | 0.43 |
| Allyl chloride | 107051 | 1.00 | 0.89 |
| Benzene | 71432 | 1.00 | 0.80 |
| Benzyl chloride | 100447 | 1.00 | 0.47 |
| Biphenyl | 92524 | 0.86 | 0.45 |
| Bromoform | 75252 | 1.00 | 0.49 |
| Butadiene (1,3-) | 106990 | 1.00 | 0.98 |
| Carbon disulfide | 75150 | 1.00 | 0.92 |
| Carbon tetrachloride | 56235 | 1.00 | 0.94 |
| Chlorobenzene | 108907 | 1.00 | 0.73 |
| Chloroform | 67663 | 1.00 | 0.78 |
| Chloroprene (2-Chloro-1,3-butadiene) | 126998 | 1.00 | 0.68 |
| Cumene | 98828 | 1.00 | 0.88 |
| Dichlorobenzene (p-) | 106467 | 1.00 | 0.72 |
| Dichloroethane (1,2-) (Ethylene dichloride) | 107062 | 1.00 | 0.64 |
| Dichloroethyl ether (Bis(2-Chloroethyl ether)) | 111444 | 0.76 | 0.21 |
| Dichloropropene (1,3-) | 542756 | 1.00 | 0.76 |
| Diethyl sulfate | 64675 | 0.0025 | 0.11 |
| Dimethyl sulfate | 77781 | 0.086 | 0.079 |
| Dimethylaniline (N,N-) | 121697 | 0.00080 | 0.34 |
| Dimethylhydrazine (1,1-) | 57147 | 0.38 | 0.054 |
| Dinitrophenol (2,4-) | 51285 | 0.0077 | 0.060 |
| Dinitrotoluene (2,4-) | 121142 | 0.085 | 0.18 |
| Dioxane (1,4-) (1,4-Diethyleneoxide) | 123911 | 0.87 | 0.18 |
| Epichlorohydrin(1-Chloro-2,3-epoxypropane) | 106898 | 0.94 | 0.35 |
| Ethyl acrylate | 140885 | 1.00 | 0.48 |
| Ethylbenzene | 100414 | 1.00 | 0.83 |
| Ethyl chloride (Chloroethane) | 75003 | 1.00 | 0.90 |
| Ethylene dibromide (Dibromomethane) | 106934 | 1.00 | 0.57 |
| Ethylene glycol dimethyl ether | 110714 | 0.86 | 0.32 |
| Ethylene glycol monobutyl ether acetate | 112072 | 0.043 | 0.067 |

| Chemical name | CAS Number ^a | F _m | F _c |
|--|-------------------------|----------------|----------------|
| Ethylene glycol monomethyl ether acetate | 110496 | 0.093 | 0.048 |
| Ethylene oxide | 75218 | 1.00 | 0.50 |
| Ethylidene dichloride (1,1-Dichloroethane) | 75343 | 1.00 | 0.79 |
| Hexachlorobenzene | 118741 | 0.97 | 0.64 |
| Hexachlorobutadiene | 87683 | 0.88 | 0.86 |
| Hexachloroethane | 67721 | 0.50 | 0.85 |
| Hexane | 110543 | 1.00 | 1.00 |
| Isophorone | 78591 | 0.51 | 0.11 |
| Methanol | 67561 | 0.85 | 0.17 |
| Methyl bromide (Bromomethane) | 74839 | 1.00 | 0.85 |
| Methyl chloride (Chloromethane) | 74873 | 1.00 | 0.84 |
| Methyl isobutyl ketone (Hexone) | 108101 | 0.98 | 0.53 |
| Methyl methacrylate | 80626 | 1.00 | 0.37 |
| Methyl tert-butyl ether | 1634044 | 1.00 | 0.57 |
| Methylene chloride (Dichloromethane) | 75092 | 1.00 | 0.77 |
| Naphthalene | 91203 | 0.99 | 0.51 |
| Nitrobenzene | 98953 | 0.39 | 0.23 |
| Nitropropane (2-) | 79469 | 0.99 | 0.44 |
| Phosgene | 75445 | 1.00 | 0.87 |
| Propionaldehyde | 123386 | 1.00 | 0.41 |
| Propylene dichloride (1,2-Dichloropropane) | 78875 | 1.00 | 0.72 |
| Propylene oxide | 75569 | 1.00 | 0.60 |
| Styrene | 100425 | 1.00 | 0.80 |
| Tetrachloroethane (1,1,2,2-) | 79345 | 1.00 | 0.46 |
| Tetrachloroethylene (Perchloroethylene) | 127184 | 1.00 | 0.92 |
| Toluene | 108883 | 1.00 | 0.80 |
| Toluidine (o-) | 95534 | 0.15 | 0.052 |
| Trichlorobenzene (1,2,4-) | 120821 | 1.00 | 0.64 |
| Trichloroethane (1,1,1-) (Methyl chloroform) | 71556 | 1.00 | 0.91 |
| Trichloroethane (1,1,2-) (Vinyl Trichloride) | 79005 | 1.00 | 0.60 |
| Trichloroethylene | 79016 | 1.00 | 0.87 |
| Trichlorophenol (2,4,5-) | 95954 | 0.11 | 0.086 |
| Triethylamine | 121448 | 1.00 | 0.38 |
| Trimethylpentane (2,2,4-) | 540841 | 1.00 | 1.00 |
| Vinyl acetate | 108054 | 1.00 | 0.59 |
| Vinyl chloride (Chloroethylene) | 75014 | 1.00 | 0.97 |
| Vinylidene chloride (1,1-Dichloroethylene) | 75354 | 1.00 | 0.94 |
| Xylene (m-) | 108383 | 1.00 | 0.82 |
| Xylene (o-) | 95476 | 1.00 | 0.79 |
| Xylene (p-) | 106423 | 1.00 | 0.82 |

^aCAS numbers refer to the Chemical Abstracts Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

[59 FR 19468, Apr. 22, 1994, as amended at 71 FR 76615, Dec. 21, 2006]

TABLE 35 TO SUBPART G OF PART 63—CONTROL REQUIREMENTS FOR ITEMS OF EQUIPMENT THAT MEET THE CRITERIA OF § 63.149 OF SUBPART G

| Item of equipment | Control requirement ^a |
|----------------------|---|
| Drain or drain hub | (a) Tightly fitting solid cover (TFSC); or (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of § 63.139(c); or (c) Water seal with submerged discharge or barrier to protect discharge from wind. |
| Manhole ^b | (a) TFSC; or (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of § 63.139(c); or (c) If the item is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter. |
| Lift station | (a) TFSC; or (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of § 63.139(c); or (c) If the lift station is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter. The lift station shall be level controlled to minimize changes in the liquid level. |

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| Item of equipment | Control requirement ^a |
|---------------------------|---|
| Trench | (a) TFSC; or (b) TFSC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of § 63.139(c); or (c) if the item is vented to the atmosphere, use a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system. The vent pipe shall be at least 90 cm in length and not exceeding 10.2 cm in nominal inside diameter. |
| Pipe | Each pipe shall have no visible gaps in joints, seals, or other emission interfaces. |
| Oil/Water separator | (a) Equip with a fixed roof and route vapors to a process or to a fuel gas system, or equip with a closed vent system that routes vapors to a control device meeting the requirements of § 63.139(c); or (b) Equip with a floating roof that meets the equipment specifications of § 60.693 (a)(1)(i), (a)(1)(ii), (a)(2), (a)(3), and (a)(4). |
| Tank ^c | Maintain a fixed roof. ^d If the tank is sparged ^e or used for heating or treating by means of an exothermic reaction, a fixed roof and a system shall be maintained that routes the organic hazardous air pollutants vapors to other process equipment or a fuel gas system, or a closed vent system that routes vapors to a control device that meets the requirements of 40 CFR § 63.119 (e)(1) or (e)(2). |

^a Where a tightly fitting solid cover is required, it shall be maintained with no visible gaps or openings, except during periods of sampling, inspection, or maintenance.
^b Manhole includes sumps and other points of access to a conveyance system.
^c Applies to tanks with capacities of 38 m³ or greater.
^d A fixed roof may have openings necessary for proper venting of the tank, such as pressure/vacuum vent, j-pipe vent.
^e The liquid in the tank is agitated by injecting compressed air or gas.

TABLE 36 TO SUBPART G OF PART 63—COMPOUND LISTS USED FOR COMPLIANCE DEMONSTRATIONS FOR ENHANCED BIOLOGICAL TREATMENT PROCESSES (SEE § 63.145(H))

| List 1 | List 2 |
|--------------------------------------|---|
| Acetonitrile | Acetaldehyde. |
| Acetophenone | Acrolein. |
| Acrylonitrile | Allyl Chloride. |
| Biphenyl | Benzene. |
| Chlorobenzene | Benzyl Chloride, |
| Dichloroethyl Ether | Bromoform. |
| Diethyl Sulfate | Bromomethane. |
| Dimethyl Sulfate | Butadiene 1,3. |
| Dimethyl Hydrazine 1,1 | Carbon Disulfide. |
| Dinitrophenol 2,4 | Carbon Tetrachloride |
| Dinitrotoluene 2,4 | Chloroethane (ethyl chloride). |
| Dioxane 1,4 | Chloroform. |
| Ethylene Glycol Monobutyl | Chloroprene. |
| Ether Acetate | |
| Ethylene Glycol Monomethyl | Cumene (isopropylbenzene). |
| Ether Acetate | |
| Ethylene Glycol Dimethyl Ether | Dibromoethane 1,2. |
| Hexachlorobenzene | Dichlorobenzene 1,4. |
| Isophorone | Dichloroethane 1,2. |
| Methanol | Dichloroethane 1,1 (ethylidene dichloride). |
| Methyl Methacrylate | Dichloroethene 1,1 (vinylidene chloride). |
| Nitrobenzene | Dichloropropane 1,2. |
| Toluidine | Dichloropropene 1,3. |
| Trichlorobenzene 1,2,4 | Dimethylaniline N,N. |
| Trichlorophenol 2,4,6 | Epichlorohydrin. |
| Triethylamine | Ethyl Acrylate. |
| | Ethylbenzene. |
| | Ethylene Oxide. |
| | Ethylene Dibromide. |
| | Hexachlorobutadiene. |
| | Hexachloroethane. |
| | Hexane-n. |
| | Methyl Isobutyl Ketone. |
| | Methyl Tertiary Butyl Ether. |
| | Methyl Chloride. |
| | Methylene Chloride (dichloromethane). |
| | Naphthalene. |
| | Nitropropane 2 |
| | Phosgene. |
| | Propionaldehyde. |
| | Propylene Oxide. |
| | Styrene. |
| | Tetrachloroethane 1,1,2,2. |

| List 1 | List 2 |
|--------|--|
| | Toluene Trichloroethane 1,1,1 (methyl chloroform). Trichloroethane 1,1,2. Trichloroethylene. Trimethylpentane 2,2,4. Vinyl Chloride. Vinyl Acetate. Xylene-m. Xylene-o. Xylene-p. |

[59 FR 19468, Apr. 22, 1994, as amended at 71 FR 76615, Dec. 21, 2006]

TABLE 37 TO SUBPART G OF PART 63—DEFAULT BIORATES FOR LIST 1 COMPOUNDS

| Compound name | Biorate, K1 L/g MLVSS-hr |
|--|-----------------------------|
| Acetonitrile | 0.100 |
| Acetophenone | 0.538 |
| Acrylonitrile | 0.750 |
| Biphenyl | 5.643 |
| Chlorobenzene | 10.000 |
| Dichloroethyl ether | 0.246 |
| Diethyl sulfate | 0.105 |
| Dimethyl hydrazine(1,1) | 0.227 |
| DiMethyl sulfate | 0.178 |
| Dinitrophenol 2,4 | 0.620 |
| Dinitrotoluene(2,4) | 0.784 |
| Dioxane(1,4) | 0.393 |
| Ethylene glycol dimethyl ether | 0.364 |
| Ethylene glycol monomethyl ether acetate | 0.159 |
| Ethylene glycol monobutyl ether acetate | 0.496 |
| Hexachlorobenzene | 16.179 |
| ISophorone | 0.598 |
| Methanol | 0.200 |
| Methyl methacrylate | 4.300 |
| Nitrobenzene | 2.300 |
| Toluidine (-0) | 0.859 |
| Trichlorobenzene 1,2,4 | 4.393 |
| Trichlorophenol 2,4,5 | 4.477 |
| Triethylamine | 1.064 |

FIGURE 1 TO SUBPART G OF PART 63—
DEFINITIONS OF TERMS USED IN
WASTEWATER EQUATIONS

Main Terms

AMR=Actual mass removal of Table 8 and/or Table 9 compounds achieved by treatment process or a series of treatment processes, kg/hr.
C=Concentration of Table 8 and/or Table 9 compounds in wastewater, ppmw.
CG=Concentration of TOC (minus methane and ethane) or total organic hazardous air pollutants, in vented gas stream, dry basis, ppmv.
CG_c=Concentration of TOC or organic hazardous air pollutants corrected to 3-percent oxygen, in vented gas stream, dry basis, ppmv.
CGS=Concentration of sample compounds in vented gas stream, dry basis, ppmv.
E=Removal or destruction efficiency, percent.

F_{bio}=Site-specific fraction of Table 8 and/or Table 9 compounds biodegraded, unitless.
f^{bio}=Site-specific fraction of an individual Table 8 or Table 9 compound biodegraded, unitless.
Fm=Compound-specific fraction measured factor, unitless (listed in table 34).
Fr=Fraction removal value for Table 8 and/or Table 9 compounds, unitless (listed in Table 9).
Fr_{avg}=Flow-weighted average of the Fr values.
i=Identifier for a compound.
j=Identifier for a sample.
k=Identifier for a run.
K₂=Constant, 41.57 * 10⁻⁹, (ppm)⁻¹ (gram-mole per standard m³) (kg/g), where standard temperature (gram-mole per standard m³) is 20 °C.
m=Number of samples.
M=Mass, kg.
MW=Molecular weight, kg/kg-mole.
n=Number of compounds.
p=Number of runs.

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%O_{2d}=Concentration of oxygen, dry basis, percent by volume.

Q=Volumetric flowrate of wastewater, m³/hr.

QG=Volumetric flow rate of vented gas stream, dry standard, m³/min.

QMG=Mass flowrate of TOC (minus methane and ethane) or organic hazardous air pollutants, in vented gas stream, kg/hr.

QMW=Mass flowrate of Table 8 and/or Table 9 compounds in wastewater, kg/hr.

ρ=Density, kg/m³.

RMR=Required mass removal achieved by treatment process or a series of treatment processes, kg/hr.

t_r=Total time of all runs, hr.

Subscripts

a=Entering.

b=Exiting.

i=Identifier for a compound.

j=Identifier for a sample.

k=Identifier for a run.

m=Number of samples.

n=Number of compounds.

p=Number of runs.

T=Total; sum of individual.

[59 FR 19468, Apr. 22, 1994, as amended at 59 FR 29201, June 6, 1994; 61 FR 63629–63630, Dec. 12, 1995; 62 FR 2779, Jan. 17, 1997; 63 FR 67793, Dec. 9, 1998; 64 FR 20195, Apr. 26, 1999; 65 FR 78284, Dec. 14, 2000; 66 FR 6935, Jan. 22, 2001]

Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

SOURCE: 59 FR 19568, Apr. 22, 1994, unless otherwise noted.

§ 63.160 Applicability and designation of source.

(a) The provisions of this subpart apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems required by this subpart that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of a specific subpart in 40 CFR part 63 that references this subpart.

(b) After the compliance date for a process unit, equipment to which this subpart applies that are also subject to the provisions of:

(1) 40 CFR part 60 will be required to comply only with the provisions of this subpart.

(2) 40 CFR part 61 will be required to comply only with the provisions of this subpart.

(c) If a process unit subject to the provisions of this subpart has equipment to which this subpart does not apply, but which is subject to a standard identified in paragraph (c)(1), (c)(2), or (c)(3) of this section, the owner or operator may elect to apply this subpart to all such equipment in the process unit. If the owner or operator elects this method of compliance, all VOC in such equipment shall be considered, for purposes of applicability and compliance with this subpart, as if it were organic hazardous air pollutant (HAP). Compliance with the provisions of this subpart, in the manner described in this paragraph, shall be deemed to constitute compliance with the standard identified in paragraph (c)(1), (c)(2), or (c)(3) of this section.

(1) 40 CFR part 60, subpart VV, GGG, or KKK; (2) 40 CFR part 61, subpart F or J; or (3) 40 CFR part 264, subpart BB or 40 CFR part 265, subpart BB.

(2) [Reserved]

(d) The provisions in §63.1(a)(3) of subpart A of this part do not alter the provisions in paragraph (b) of this section.

(e) Except as provided in any subpart that references this subpart, lines and equipment not containing process fluids are not subject to the provisions of this subpart. Utilities, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered to be part of a process unit.

(f) The provisions of this subpart do not apply to research and development facilities or to bench-scale batch processes, regardless of whether the facilities or processes are located at the same plant site as a process subject to the provisions of this subpart.

(g) *Alternative means of compliance—*
(1) *Option to comply with part 65.* Owners or operators of CMPU that are subject to §63.100 may choose to comply with the provisions of 40 CFR part 65 for all Group 1 and Group 2 process vents,