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Environmental Protection
Agency

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**INSPECTION TOOL FOR THE
MISCELLANEOUS ORGANIC CHEMICAL
MANUFACTURING NESHAP
Section 3.0
Section 4.0**

Air Compliance Branch
Compliance Assessment and Media Programs Division (CAMPD)
Office of Compliance (OC)
Office of Enforcement and Compliance Assurance (OECA)
U.S. Environmental Protection Agency Washington, DC 20460

3.0 Process Vents

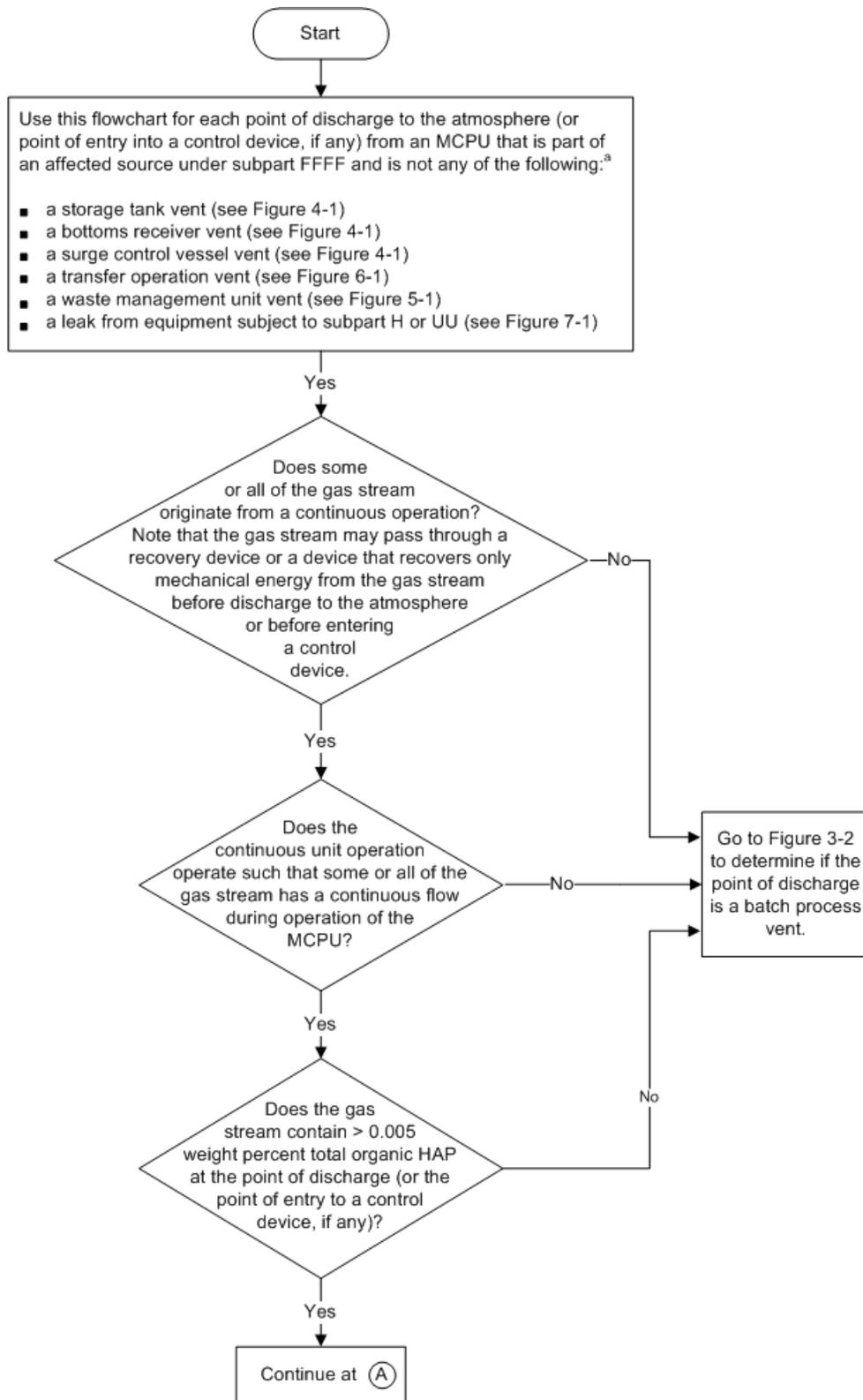
This section contains applicability and control flowcharts and inspection checklists for controlling HAP emissions from process vents. Use Figures 3-1 and 3-2 to determine if a vent from a process unit operation is a continuous process vent or a batch process vent, respectively. These flowcharts also can be used to determine the group status of process vents. Figure 3-3 identifies the available compliance options for organic HAP emissions from Group 1 continuous process vents and Group 1 batch process vents. Use Figure 3-4 to determine if hydrogen halide and halogen HAP must be controlled and the available compliance options for these emissions. Use Figure 3-5 to determine if HAP metals must be controlled and the compliance requirements for these emissions.

Use the checklist in Table 3-1 to document the identity, group status, and applicable control option of a continuous process vent. This checklist also points you to checklists in other sections for determining compliance with the applicable requirements for the Group 1 vent. If the vent is a Group 2 continuous process vent, the checklist in Table 3-1 allows you to document the TRE level and indicate whether the TRE was determined after a recovery device. If the TRE is maintained within a specified range by a recovery device, the checklist points you to other checklists for determining compliance with applicable monitoring requirements. Finally, the checklist in Table 3-1 includes a question to determine compliance with notification requirements for vents that change from Group 2 to Group 1.

Use the checklist in Table 3-2 to document the group status and control technique(s) for the collection of batch process vents within a process. This checklist also points you to checklists in other sections for closed-vent systems, applicable add-on control devices, and the alternative standard. It also points you to the checklist in Table 3-3, which may be used to determine compliance for Group 2 batch process vents. Finally, the checklist in Table 3-2 includes a question to determine compliance with general recordkeeping requirements for Group 1 batch process vents.

Use the checklist in Table 3-4 to document the control technique(s) for all of the process vents within a process that emit hydrogen halide and halogen HAP and to determine compliance with general recordkeeping requirements for such process vents. This checklist also points you to checklists in other sections for closed-vent systems, applicable add-on control devices, and the alternative standard. Use the checklist in Table 3-5 to determine compliance for process vents that fall below the threshold for control of hydrogen halide and halogen HAP emissions.

Use the checklist in Table 3-6 to document the control technique for all of the process vents within a process at a new source that emits HAP metals. This checklist also points you to a checklist in Section 10 for the control devices used to comply with the emission limit.



^a If the gas stream at the point of discharge (or entry to a control device) includes contributions from more than one MCPU, apply the flowchart separately to the fractions of the total gas stream from each MCPU.

Figure 3-1. Applicability for continuous process vents.

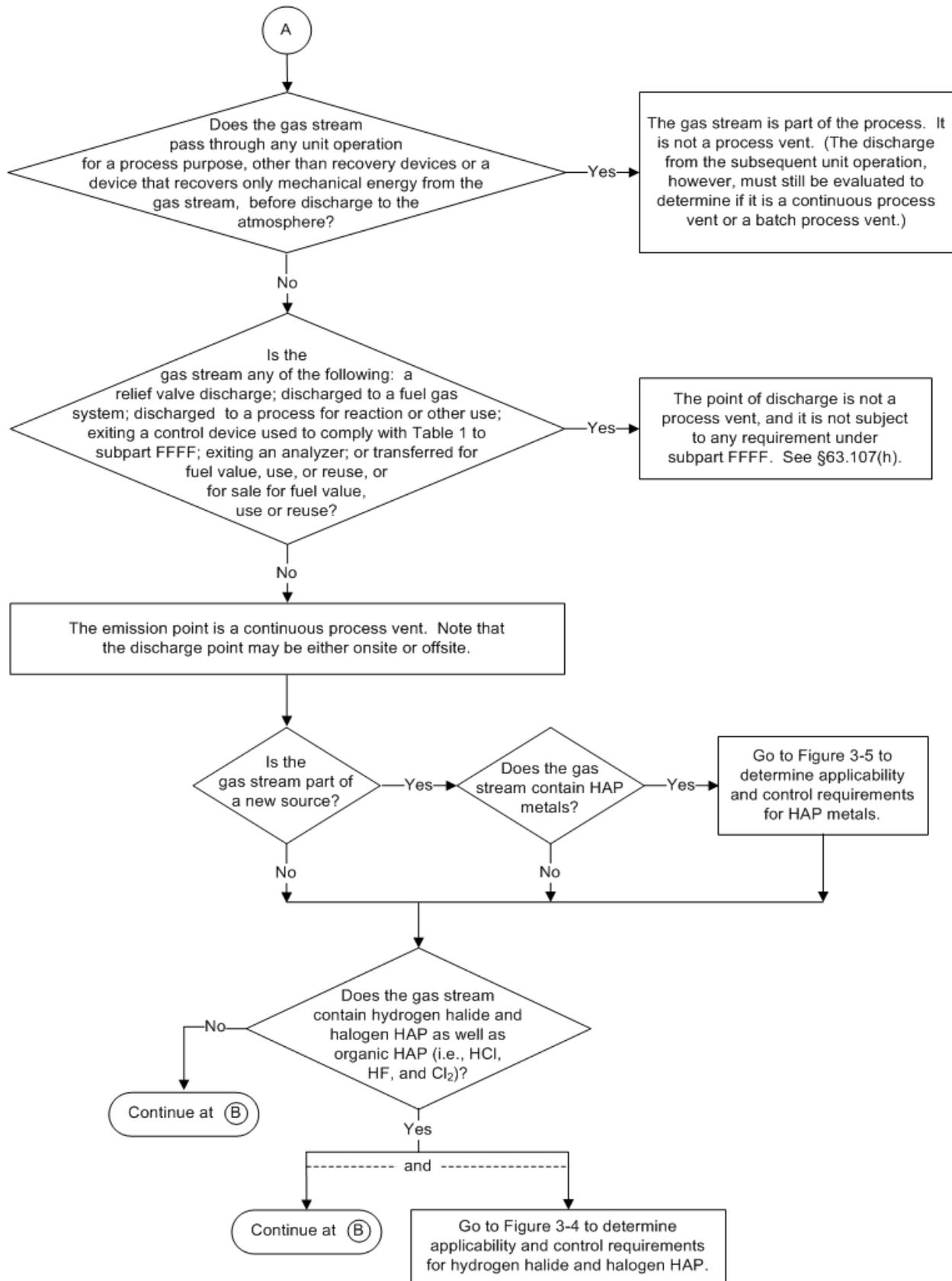


Figure 3-1. (continued)

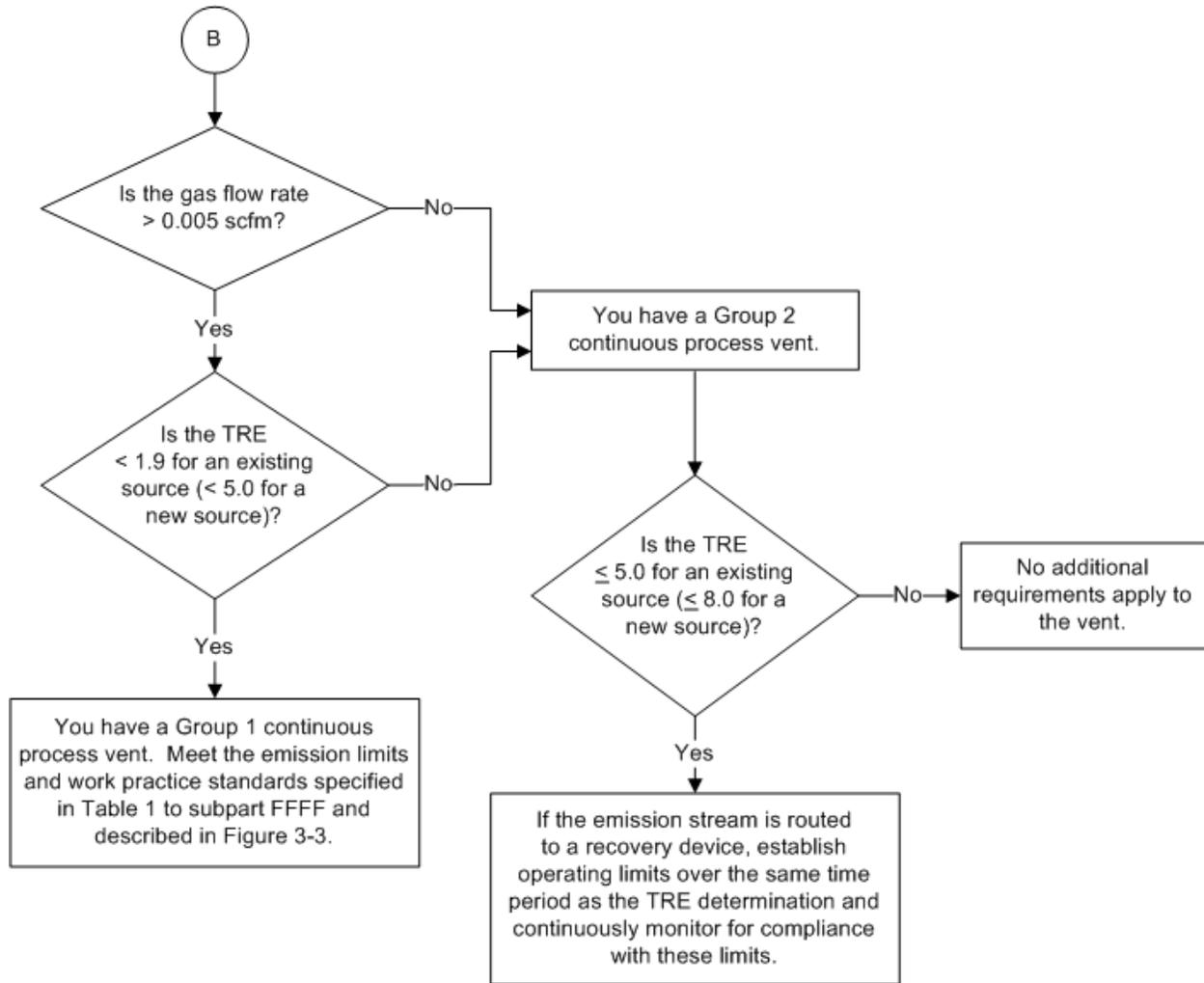


Figure 3-1. (continued)

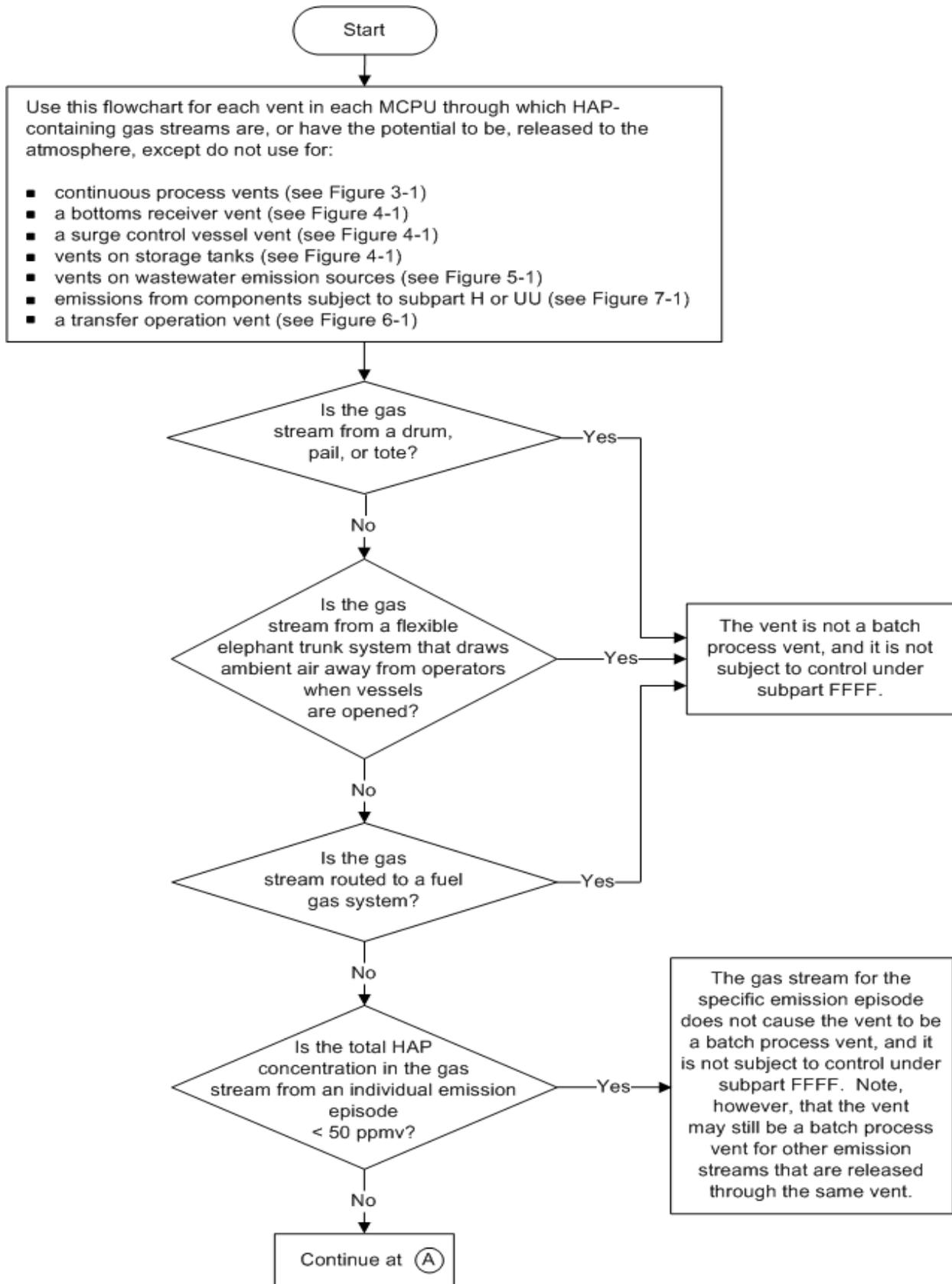


Figure 3-2. Applicability for batch process vents.

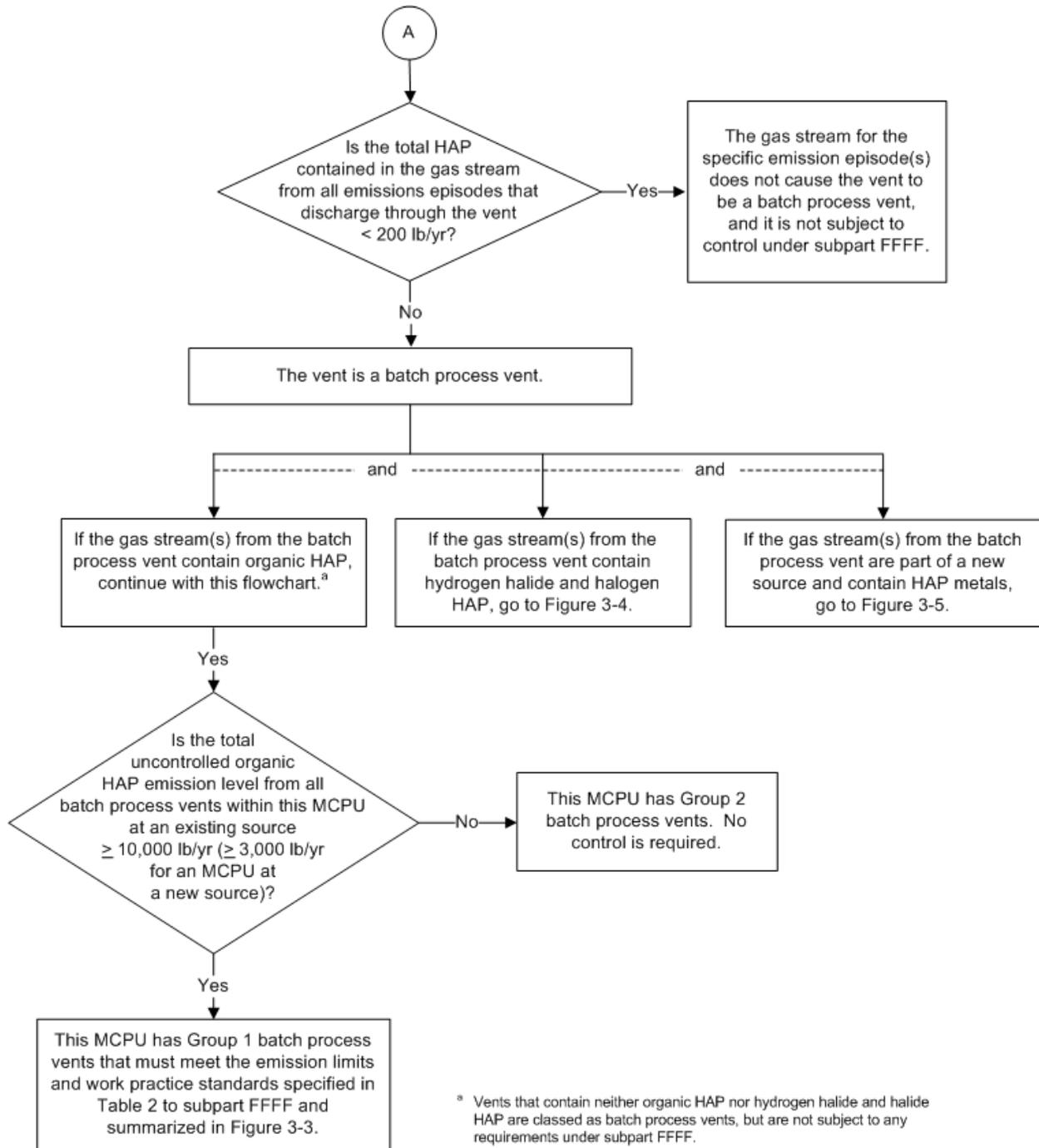
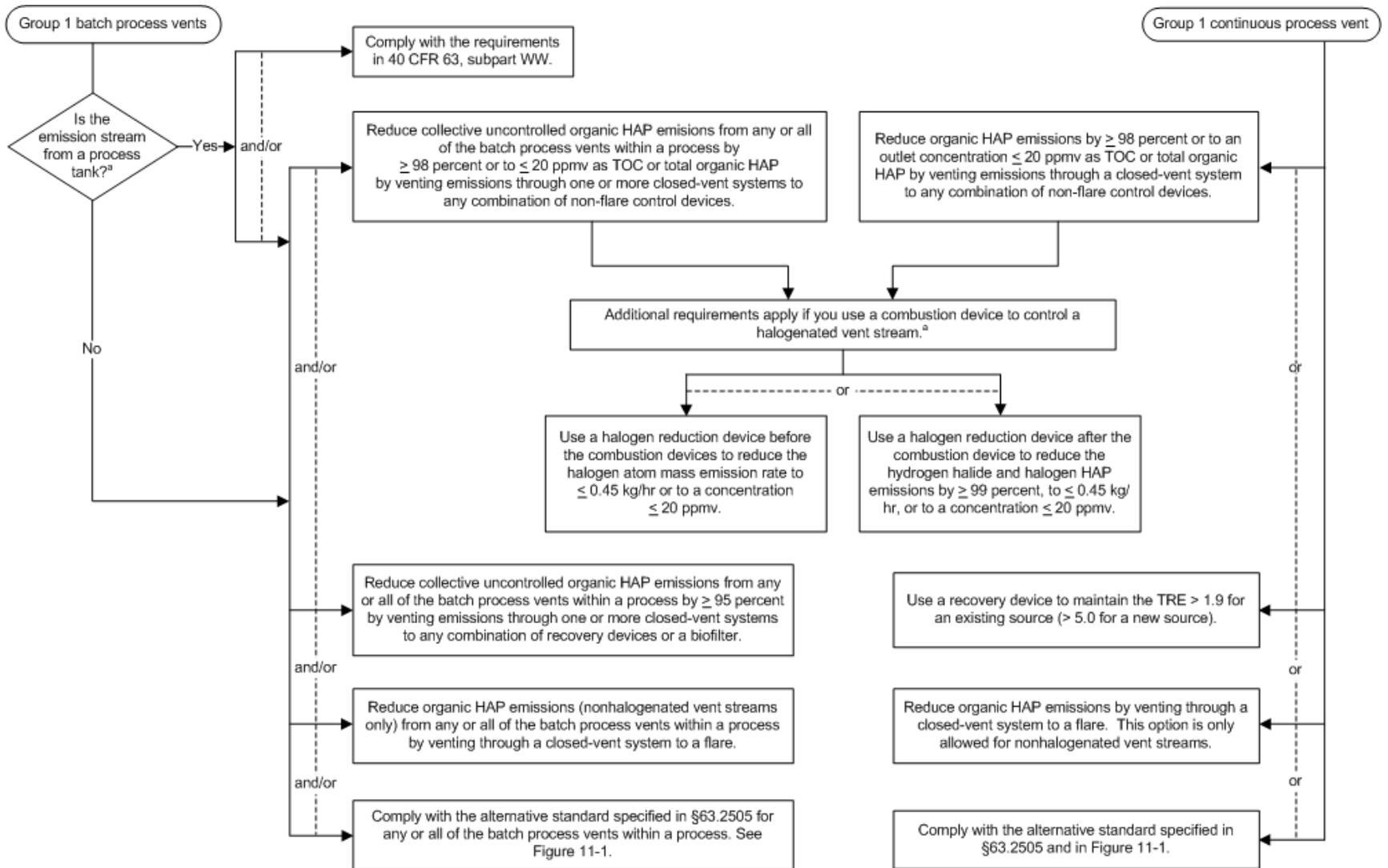
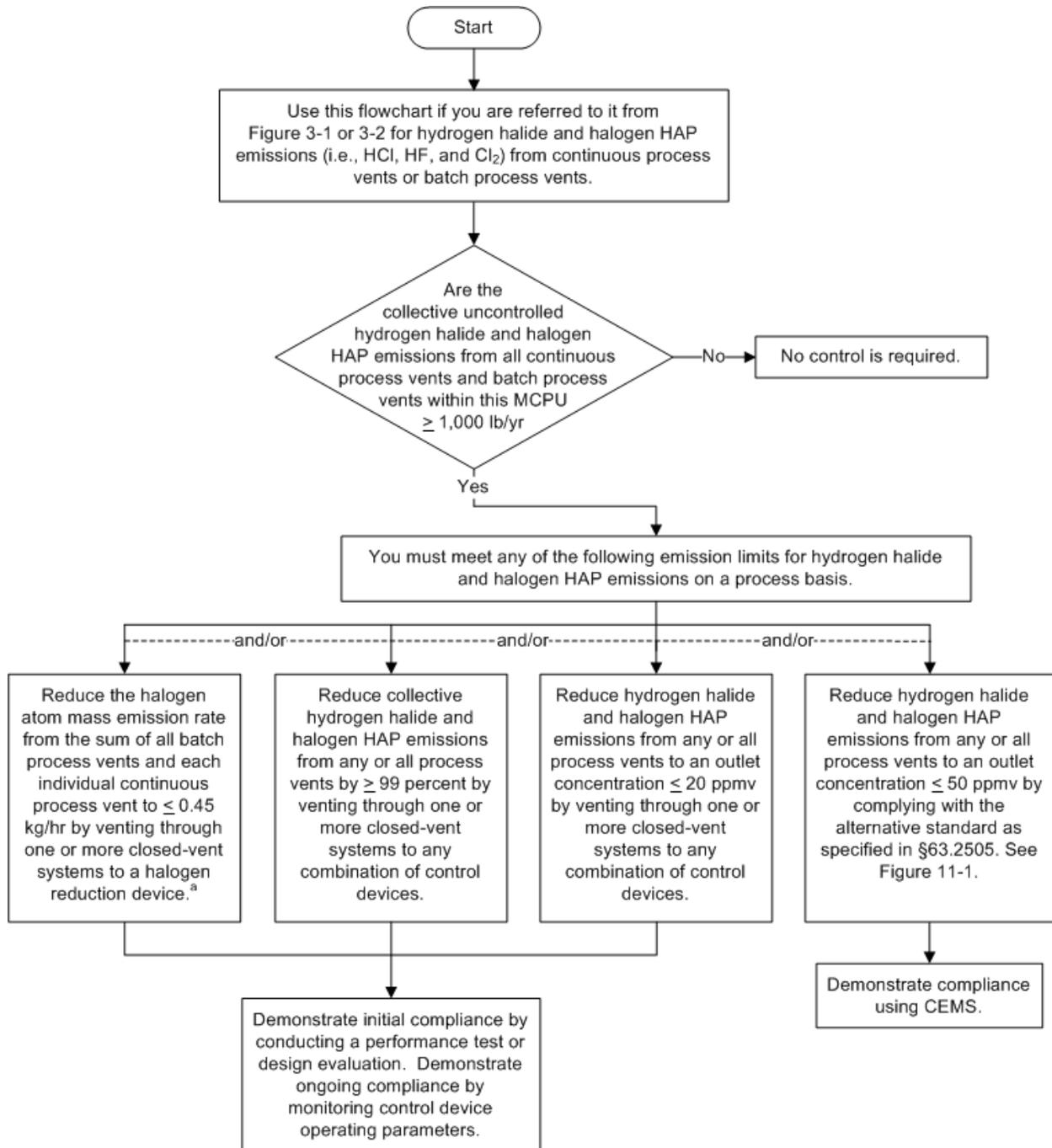


Figure 3-2. (continued)



^a See Appendix B for definitions of "process tank" and "halogenated vent stream."

Figure 3-3. Emission limits and work practice standards for organic HAP emissions from batch or continuous process vents.



^a Note that the 0.45 kg/hr limit applies to all batch process vents within a process, which means a combination of options is not possible for batch process vents when complying with the 0.45 kg/hr limit.

Figure 3-4. Applicability and control requirements for hydrogen halide and halogen HAP emissions from process vents.

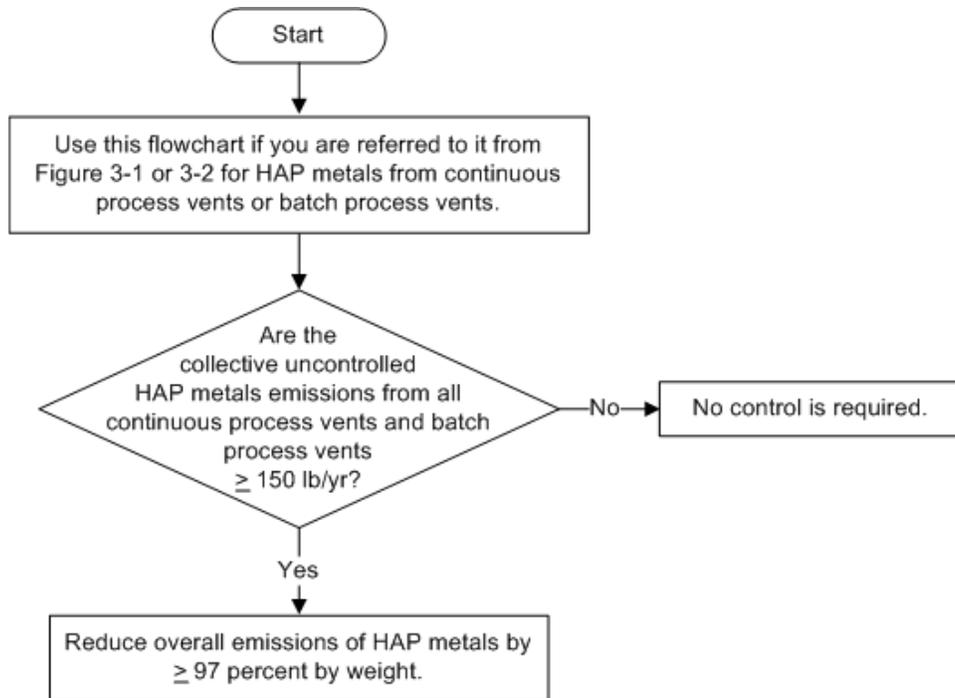


Figure 3-5. Applicability and control requirements for HAP metals emissions from process vents at new sources.

Table 3-1. Inspection Checklist for Controlling Organic HAP Emissions from Continuous Process Vents that Are Subject to Subpart FFFF

Note: Use this checklist for each continuous process vent that is subject to subpart FFFF. A “yes” response to questions in the review of records section of this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement. If a question is not applicable, check the “N/A” box.

I. General Information

1. Process and Continuous Process Vent Identification: _____
2. What is the Group Status of the continuous process vent (determined according to Figure 3-1):

- Group 1, or

Continue with item “3,” in this section of the checklist and items “1” and “3” in the review of records section of this checklist.

- Group 2

Continue with items “2” and “3” in the review of records section of this checklist.

3. Which type of emission limit applies to the organic HAP emissions from the Group 1 continuous process vents? (check all that apply)

- Use a flare? (go to checklists in Tables 9-1, 9-2, and 10-1)

Note: Halogenated vent streams may not be controlled using a flare, unless a halogen reduction device before the flare reduces the mass emission rate of halogen atoms in organic compounds to less than 0.45 kg/hr. See item “1” in the review of records section of this checklist.

- Reduce organic HAP emissions by ≥ 98 percent in a control device or to less than 20 ppmv as organic HAP or TOC using one or more of the following add-on devices:

Note: Also see item “4” in this checklist if the continuous process vent emits a halogenated vent stream that is controlled with a combustion device.

- A thermal incinerator? (go to checklists in Tables 9-1, 9-2, and 10-2)
- A catalytic incinerator? (go to checklists in Tables 9-1, 9-2, and 10-3)
- A boiler or process heater with a capacity less than 44 MW that does not have the emission stream introduced with the primary fuel? (go to checklists in Tables 9-1, 9-2, and 10-4).
- A boiler or process heater with a capacity greater than 44 MW or that has the vent stream introduced with the primary fuel? (go to checklists in Tables 9-1, 9-2, and 10-5)
-

Table 3-1. (continued)

I. General Information

- A carbon adsorber? (go to checklists in Tables 9-1, 9-2, and 10-6).
 - An absorber? (go to checklists in Tables 9-1, 9-2, and either 10-7 or 10-10)
 - A condenser? (go to checklists in Tables 9-1, 9-2, and 10-8)
 - Another type of control device? (go to checklists in Tables 9-1, 9-2, and 10-9)
 - Install a recovery device to maintain the TRE above 1.9 and <5.0 for an existing source (above 5.0 and <8.0 for a new source)? (go to items "2" and "3" in the review of records section of this checklist for Group 2 continuous process vents)
 - Comply with the alternative standard in §63.2505? (go to checklists in Tables 9-1, 9-2, 11-1, and, if applicable, 11-2)
-

II. Review of Records

1. If a halogenated vent stream from a Group 1 continuous process vent is controlled using a combustion device, is a halogen reduction device also used either before or after the combustion device? If yes, which of the following requirements are met: Y N/A N
 - Is a halogen reduction device used before the combustion device to reduce the halogen atom mass emission rate to ≤ 0.45 kg/hr or to a concentration ≤ 20 ppmv? (go to the appropriate checklist in Section 10; for example, go to Table 10-10 if the halogen reduction device is a scrubber)
 - Is a halogen reduction device used after the combustion device to reduce hydrogen halide and halogen HAP emissions by ≥ 99 percent, to ≤ 0.45 kg/hr, or to a concentration ≤ 20 ppmv? (go to the appropriate checklist in Section 10; for example, go to Table 10-10 if the halogen reduction device is a scrubber)

Note: When the organic HAP is controlled with a flare, the halogen content must be reduced before venting to the flare.
 2. Which of the following conditions describes the Group 2 continuous process vent:
 - The TRE is >1.9 at an existing source (>5.0 at a new source) without a recovery device?
 - The TRE is >5.0 after the last recovery device at an existing source (>8.0 at a new source)?
-

Table 3-2. Inspection Checklist for Controlling Organic HAP Emissions from Batch Process Vents in a Process Subject to Subpart FFFF

Note: Use this checklist for the collection of batch process vents within a process that is subject to subpart FFFF. A “yes” response to a question in the review of records section of this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement. If a question is not applicable, check the “N/A” box.

I. General Information

1. Process Identification or Identification of Batch Process Vents in the Process:

2. What is the Group Status of the batch process vents (determined according to Figure 3-2):

- Group 1, or

Continue with this checklist.

- Group 2

No control is required, but go to checklist in Table 3-3 to determine compliance with other requirements.

3. Which type of emission limit applies to the organic HAP emissions from Group 1 batch process vents? (check all that apply)

- Use a flare? (go to checklists in Tables 9-1, 9-2, and 10-1)

Note: Halogenated vent streams may not be controlled using a flare, unless a halogen reduction device before the flare reduces the mass emission rate of halogen atoms in organic compounds to less than 0.45 kg/hr. See item “1” in the review of records section of this checklist.

- Reduce organic HAP emissions by ≥ 98 percent in a control device, ≥ 95 percent in a recovery device or biofilter, or to less than 20 ppmv as organic HAP or TOC using one or more of the following add-on devices:

Note: Also see item “1” in the review of records section of this checklist if any of the batch process vents emit halogenated vent streams that are controlled with a combustion device.

- A thermal incinerator? (go to checklists in Tables 9-1, 9-2, and 10-2)
- A catalytic incinerator? (go to checklists in Tables 9-1, 9-2, and 10-3)
- A boiler or process heater with a capacity less than 44 MW that does not have the emission stream introduced with the primary fuel? (go to checklists in Tables 9-1, 9-2, and 10-4).
- A boiler or process heater with a capacity greater than 44 MW or that has the vent stream introduced with the primary fuel? (go to checklists in Tables 9-1, 9-2, and 10-5)
-

Table 3-2. (continued)

I. General Information

- A carbon adsorber? (go to checklists in Tables 9-1, 9-2, and 10-6).
 - An absorber? (go to checklists in Tables 9-1, 9-2, and either 10-7 or 10-10)
 - A condenser? (go to checklists in Tables 9-1, 9-2, and 10-8)
 - Another type of control device? (go to checklists in Tables 9-1, 9-2, and 10-9)
 - A biofilter? (go to checklists in Tables 9-1, 9-2, and 10-11)
 - Comply with the alternative standard in §63.2505? (go to checklists in Tables 9-1, 9-2, 11-1, and, if applicable, 11-2)
-

II. Review of Records

1. If halogenated vent streams from Group 1 batch process vents are controlled using a combustion device, is a halogen reduction device also used either before or after the combustion device? If yes, which of the following requirements are met: (note that both types of devices may exist if the Group 1 batch process vents for a given process are controlled by more than one combustion device)
 - Y N/A N
 - Is a halogen reduction device used before the combustion device to reduce the halogen atom mass emission rate to ≤ 0.45 kg/hr or to a concentration ≤ 20 ppmv? (go to the appropriate checklist in Section 10; for example, go to Table 10-10 if the halogen reduction device is a scrubber)
 - Is a halogen reduction device used after the combustion device to reduce hydrogen halide and halogen HAP emissions by ≥ 99 percent, to ≤ 0.45 kg/hr, or to a concentration ≤ 20 ppmv? (go to the appropriate checklist in Section 10; for example, go to Table 10-10 if the halogen reduction device is a scrubber)

Note: When the organic HAP to the flare is controlled with a flare, the halogen content must be reduced before venting to the flare.
 2. If Group 1 batch process vents are in compliance with a percent reduction emission limit and some of the vents are controlled to less than the required average for all vents, are all of the following records kept for each batch:
 - (a) Whether the batch was a standard batch or a nonstandard batch? Y N/A N
 - (b) The estimated uncontrolled emissions for each batch that was a nonstandard batch? Y N/A N

Note: An inspector should check that the overall required percent reduction is achieved for nonstandard batches.
-

Table 3-3. Compliance Checklist for Group 2 Batch Process Vents

Note: A “yes” response to a question in this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement. If a question is not applicable, check the “N/A” box.

Note: This checklist does not apply if the facility has elected to designate a batch process vent as a Group 1 batch process vent.

I. Review of Records

1. Does the facility have calculation records of the uncontrolled organic HAP emissions from each batch process vent and the collective uncontrolled emissions for a standard batch (i.e., as part of an operating scenario)?
§§63.2460(b) and 63.2525(b) Y N

 2. If the facility does not maintain records related to each batch for the process, does the notification of compliance status report indicate it is because of one of the following reasons? If yes, check the applicable reason.
§63.2525(e)(1) Y N/A N
 - The MCPU does not process, use, or generate HAP?
 - The Group 2 batch process vents are controlled using a flare that meets the requirements of §63.987?
 - The Group 2 batch process vents are controlled using a control device that also controls Group 1 batch process vents, and worst-case conditions for the initial compliance demonstration included the contribution from the Group 2 batch process vents?

 3. If the facility documented in its notification of compliance status report that non-reactive organic HAP is the only HAP used in the process and usage is < 10,000 lb/yr, does it maintain all of the following records: *§63.2525(e)(2)*
 - (a) Amount of non-reactive organic HAP material used per day or per batch? Y N/A N
 - (b) Daily rolling annual summations of the amount used in the preceding 365 days? Y N/A N

Note: The summation calculations do not have to be performed every day, but calculations must be performed at least once per month for each of the days since the previous calculations.

 4. If the facility documented in its notification of compliance status report that uncontrolled organic HAP emissions are < 1,000 lb/yr from the batch process vents in the process, does it maintain records of the following:
§63.2525(e)(3)
 - (a) Number of batches operated? Y N/A N
-

Table 3-3. (continued)

I. Review of Records

- (b) Daily rolling annual sum of the batches operated in the preceding 365 days? Y N/A N

Note: The summation calculations do not have to be performed every day, but the calculations must be performed at least once per month for each of the days since the previous calculations.

5. If none of the conditions in items 2–4 above apply, are all of the following records maintained for each batch? §63.2525(e)

- (a) The day the batch was completed? Y N/A N
- (b) Whether the batch was a standard batch or a nonstandard batch? Y N/A N
- (c) The estimated uncontrolled emissions, if the batch was a nonstandard batch? Y N/A N
- (d) A summation of the total uncontrolled emissions over the preceding 365 days (and are the sums less than 10,000 lb for a process at an existing source and less than 3,000 lb for a process at a new source)? Y N/A N

Note: The summation calculations do not have to be performed every day, but they must be performed at least once per month for each of the days since the previous calculation.

6. If the status of the batch process vents changed from Group 2 to Group 1, did the facility notify the permitting agency 60 days before the change took effect? §63.2520(e)(10)(ii)(C) Y N/A N

Note: The advance notification is not required if the process operated with Group 2 batch process vents for at least 1 year before the change.

7. Are all records kept for at least 5 years? §63.10(b)(1) Y N

II. Note All Deficiencies

Table 3-4. Inspection Checklist for Controlling Hydrogen Halide and Halogen HAP Emissions from Process Vents within Processes that Are Subject to Subpart FFFF

Note: Use this checklist for all process vents within a process that is subject to subpart FFFF and emits hydrogen halide and halogen HAP.

I. General Information

1. Process Identification and Identification of the Process Vent(s): _____

2. Are the collective uncontrolled hydrogen halide and halogen HAP emissions from all process vents within the process:
 - $\geq 1,000$ lb/yr, or
Continue with this checklist.
 - $< 1,000$ lb/yr
No control is required, but go to checklist in Table 3-5 to determine compliance with other requirements.
3. Which type of emission limit applies to the hydrogen halide and halogen HAP emissions from the process vents? (check all that apply)
 - Reduce hydrogen halide and halogen HAP emissions by ≥ 99 percent in a control device or to less than 20 ppmv using one or more of the following add-on halogen reduction devices:
 - A scrubber? (go to checklists in Tables 9-1, 9-2, and 10-10)
 - Another type of halogen reduction device? (go to checklists in Tables 9-1, 9-2, and 10-9)
 - Comply with the alternative standard in §63.2505? (go to checklists in Tables 9-1, 9-2, and 11-1)
 - Reduce the halogen atom mass emission rate from the sum of all batch process vents and each individual continuous process vent to ≤ 0.45 kg/hr using one or more of the following halogen reduction devices:
 - A scrubber? (go to checklists in Tables 9-1, 9-2, and 10-10)
 - Another type of halogen reduction device? (go to checklists in Tables 9-1, 9-2, and 10-9)

II. Note All Deficiencies

Table 3-5. Compliance Checklist for Processes with Hydrogen Halide and Halogen HAP Emissions from All Process Vents Less than 1,000 lb/yr

Note: A “yes” response to a question in this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement. If a question is not applicable, check the “N/A” box.

I. Review of Records

1. Does the facility have calculation records of the uncontrolled hydrogen halide and halogen HAP emissions from each process vent and the collective uncontrolled emissions for a standard batch (i.e., as part of an operating scenario) ? §§63.2465(b) and 63.2525(b) Y N

2. Are all of the following records maintained for each process: §63.2525(e)
 - (a) The day the batch was completed, if applicable? Y N/A N
 - (b) Whether the batch was a standard batch or a nonstandard batch, if applicable? Y N/A N
 - (c) The estimated uncontrolled hydrogen halide and halogen HAP emissions from batch process vents and continuous process vents for each nonstandard batch? Y N/A N
 - (d) A summation of the total uncontrolled hydrogen halide and halogen HAP emissions during the preceding 365 days (and are the sums less than 1,000 lb)? Y N/A N

Note: The summation calculations do not need to be performed every day, but calculations for each day since the previous calculation must be performed at least once per month.

3. Are all records kept for at least 5 years? §63.10(b)(1) Y N

II. Note All Deficiencies

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4.0 Storage Tanks, Surge Control Vessels, and Bottoms Receivers

This section contains applicability and control flowcharts and inspection checklists for storage tanks, surge control vessels, and bottoms receivers. Use Figures 4-1 and 4-2 to determine if a storage tank, surge control vessel, or bottoms receiver is subject to subpart FFFF, its group status, and its compliance options. Note that surge control vessels and bottoms receivers that meet the same capacity and maximum true vapor pressure thresholds as Group 1 storage tanks must be controlled as Group 1 storage tanks (see Appendix B for definitions of surge control vessel and bottoms receiver).

To determine compliance, use the applicable inspection checklist for the control technique that is used to minimize emissions from the storage tank, surge control vessel, or bottoms receiver. The checklist in Table 4-1 is used to document the group status and control technique for a specific tank. It also points you to other checklists for the applicable control technique, and it includes a checklist for general recordkeeping requirements. Table 4-2 provides a checklist for external floating roofs (EFRs), and Table 4-3 applies to internal floating roofs (IFRs). Checklists for closed-vent systems and air pollution control devices are in Sections 9 and 10, respectively, and Table 4-4 supplements these checklists with details about periods of planned routine maintenance for the control device. Table 4-5 is a checklist for complying with the vapor balancing option. Table 4-6 covers the requirements for complying with the alternative standard.

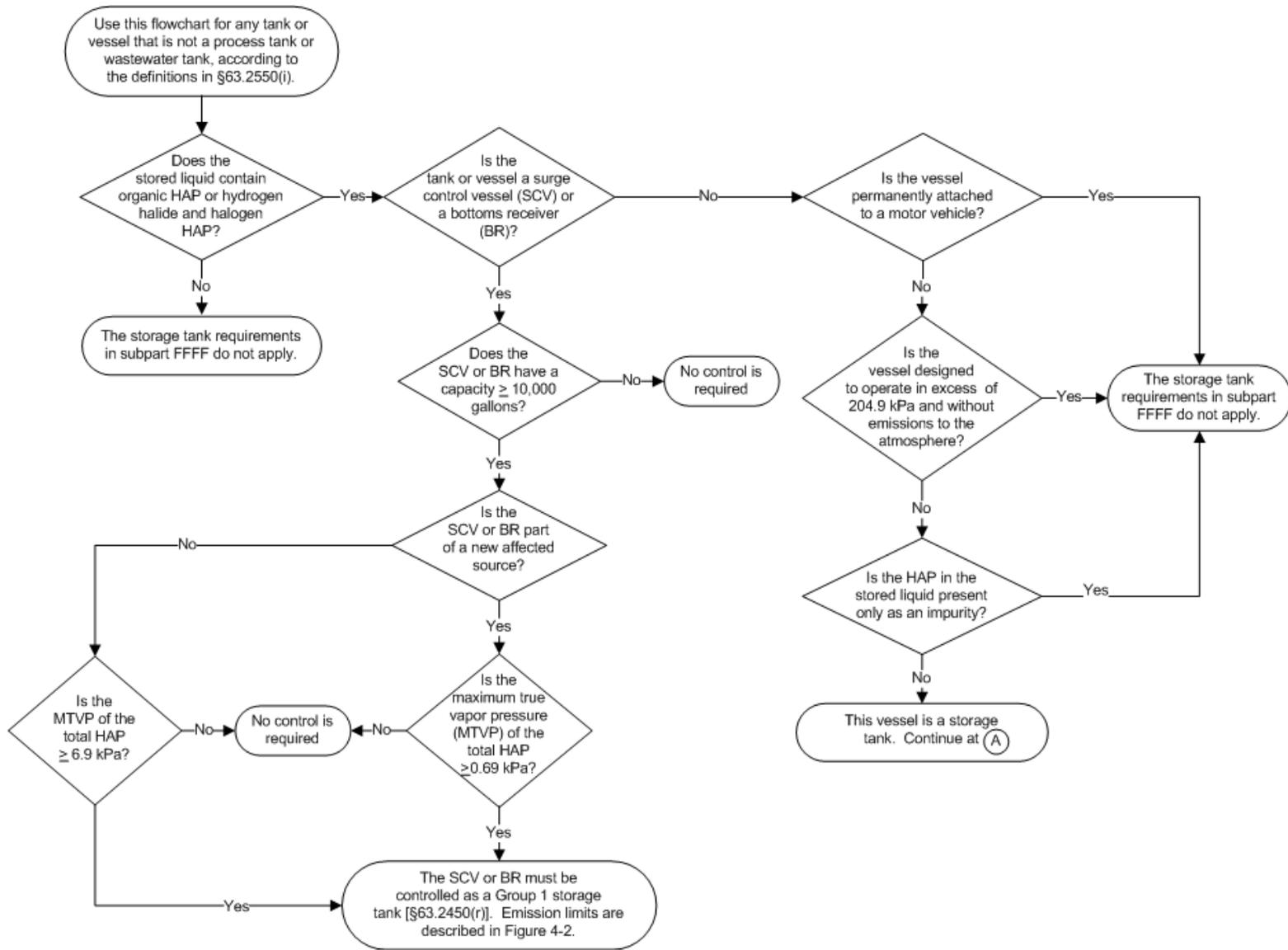


Figure 4-1. Applicability for storage tanks, surge control vessels, and bottoms receivers.

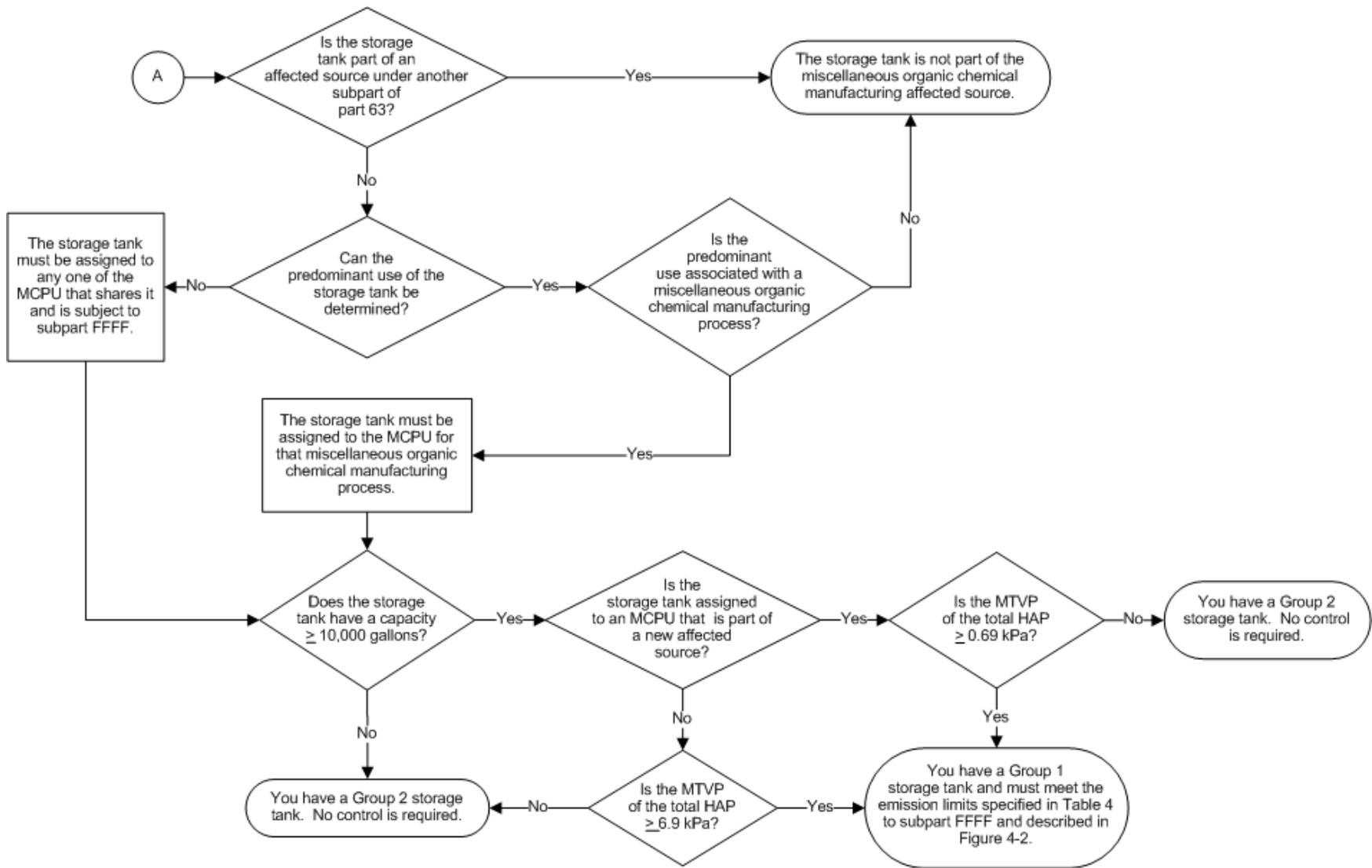
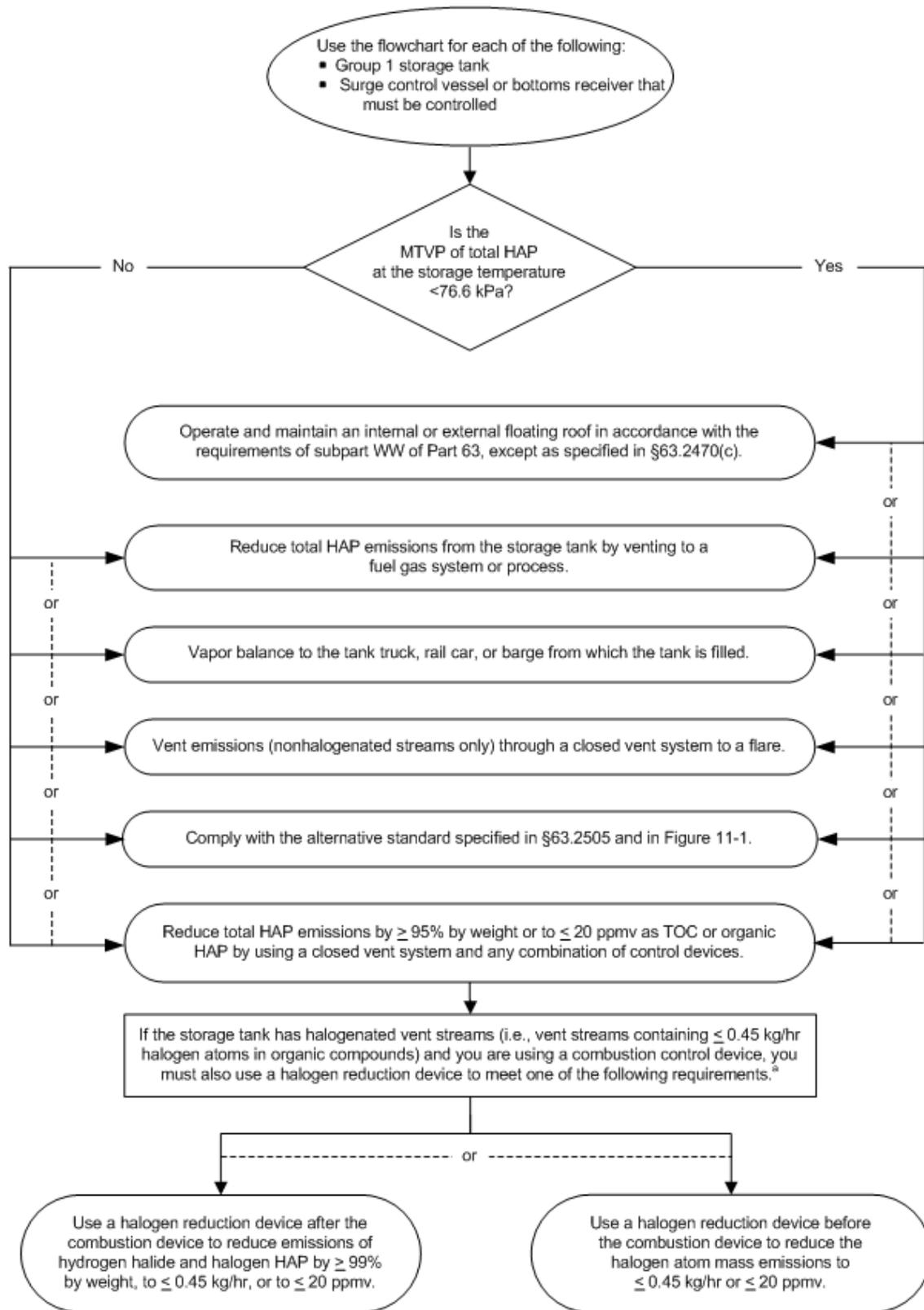


Figure 4-1. (continued)



* Section 63.2470(d) specifies that control device limits do not apply for up to 240 hr/yr of planned routine maintenance (extendable to 360 hr/yr with approval).

Figure 4-2. Emission limits for Group 1 storage tanks, surge control vessels, and bottoms receivers.

Table 4-1. Inspection Checklist for Storage Tanks, Surge Control Vessels, and Bottoms Receivers Subject to Subpart FFFF

Note: Use this checklist for each storage tank, surge control vessel, and bottoms receiver that is subject to subpart FFFF. A “yes” response to a question in item 4 in this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement.

Note: Throughout this table and Tables 4-2 through 4-6, any reference to Group 1 storage tanks also applies to surge control vessels and bottoms receivers that meet the same capacity and maximum true vapor pressure thresholds, as noted in figure 4-1.

I. General Information

1. Storage Tank Identification: _____
 2. What is the Group Status of the storage tank, or is it a surge control vessel or bottoms receiver that is subject to control under subpart FFFF (determined according to Figure 4-1):
 - Group 1
 - Group 2
 - Surge control vessel or bottoms receiver
 3. How are the emissions from the storage tank, surge control vessel, or bottoms receiver controlled?
 - Group 2 storage tank
 - Control is not required
 - Group 1 storage tank, surge control vessel, or bottoms receiver
 - An external floating roof (go to Table 4-2).
 - An internal floating roof (go to Table 4-3).
 - An external floating roof converted to an internal floating roof (go to Table 4-2).
 - A flare (go to Table 9-1 for the closed-vent system and both Tables 4-4 and 10-1 for flares).
 - A closed-vent system and a non-flare control device (go to Table 9-1 for closed-vent system and both Table 4-4 and the appropriate table in Section 10 for the non-flare control device).
 - Emissions are routed to a fuel gas system (the owner or operator must include a statement of connection in the notification of compliance status report; go to Table 12-1).
 - Emissions are routed to a process (the owner or operator must prepare a design evaluation or engineering assessment that documents the extent to which the emissions are recycled, consumed, transformed by chemical reaction into materials that are not HAP, incorporated into a product, and/or removed, and include the results of this determination in the notification of compliance status report; go to Table 12-1).
 - Vapor balancing (go to Table 4-5).
 - The alternative standard (go to Table 9-1 for the closed-vent system and Table 4-6 for the control device).
-

Table 4-2. Compliance Checklist for a Group 1 Storage Tank with an External Floating Roof

Note: A “yes” response to a question in this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement. If a question is not applicable, check the “N/A” response (e.g., item 10, which describes procedures to follow when performing the measurements is determined to be unsafe, is not applicable if performing the measurements is not determined to be unsafe).

Storage Tank Identification: _____

I. Review of Records

- | | |
|---|--|
| 1. Are all records kept for at least 5 years? §63.1065 | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 2. Do records indicate that seal gap measurements have been made every 5 years for the primary seal? §63.1063(c)(2)(ii) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 3. Do records indicate that seal gap measurements have been made annually for the secondary seal? ^a §63.1063(c)(2)(ii) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 4. Do records indicate the floating roof deck, deck fittings, and rim seals are visually inspected each time the tank is completely emptied and degassed or every 10 years? §63.1063(c)(2)(iii) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 5. Were both of the following recorded for all visual inspections and seal gap measurements: §63.1065(b)(1)(i) and (ii) | |
| • Identification of the storage vessel? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • Date of the inspection? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 6. For all seal gap measurements, was all of the following information recorded: §63.1065(b)(2) | |
| • All of the raw data that were obtained? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| • All calculations that were performed (e.g., total gap area)? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 7. When a failure was detected during a visual inspection or seal gap measurement, was all of the following information recorded: §63.1065(b)(1)(iii) through (v) | |
| • A description of all inspection failures? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| • A description of all repairs and the dates they were made? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| • The date the storage tank was removed from service (if the inspection was performed while the tank was in operation and repairs can not be completed while operating)? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |

Table 4-2. (continued)

I. Review of Records

8. Whenever a floating roof was set on its legs or other supports, was **all** of the following information recorded: §63.1065(c)
- The date when the floating roof was set on it legs or other supports? Y N/A N
 - The date when the floating roof was refloated? Y N/A N
 - An indication of whether the process of refloating was continuous? Y N/A N
9. If a tank was taken out of service to complete repairs, but it could not be emptied within 45 days of detecting a failure, was **all** of the following information kept to document the decision to request up to two 30-day extensions: §§63.1063(e)(2), 63.1065(d), and 63.1066(b)(4)
- A description of the failure? Y N/A N
 - Documentation that alternate storage capacity was not available? Y N/A N
 - Schedule of actions taken to make repairs or empty the tank as soon as possible? Y N/A N
10. If performing a required seal gap measurement was determined to be unsafe, and the vessel could not be emptied within 45 days, was **all** of the following information kept to document the decision to request up to two 30-day extensions: §§63.1063(c)(2)(iv)(B), 63.1065(d), and 63.1066(b)(4)
- Explanation of why it was unsafe to perform the seal gap measurement? Y N/A N
 - Documentation that alternate storage capacity was unavailable? Y N/A N
 - Schedule of actions taken to make repairs or empty the tank as soon as possible? Y N/A N
11. Was the Administrator or delegated state or local agency notified at least 30 days before each internal inspection or seal gap measurement (7 days if the inspection was unplanned and could not be foreseen 30 days in advance)? §63.1066(b)(1)
- Note: a delegated state or local agency may waive this requirement.*
12. When a failure was detected during a visual inspection or seal gap measurement, was a copy of the inspection records submitted in the next compliance report? §63.1066(b)(2)

Table 4-2. (continued)

II. Visual Inspection

Note: The inspector should not perform the inspection without proper respiratory protection if the roof is below 4 feet of the top of the tank. Based on the inspector's assessment of the availability of records documenting the design of the control equipment, an adequate inspection without respiratory protection may be performed with a combination of a record inspection and a visual inspection conducted from the platform with the aid of vision-enhancing devices (binoculars). If the inspector feels that it is necessary to be on the EFR when the roof is below 4 feet of the top of the tank, please be aware of the requirements under EPA Order 1440.2 (required only for Agency personnel) and the safety information in *Guidance on Confined Space Entry in NESHAP Inspections of Benzene Storage Vessels* (EPA 455/R-92-003, September 1992).

1. Does the EFR float on the surface of the stored liquid? §63.1063(b)(1) and (2) Y N/A N

Note: The EFR is not required to be floating on the liquid when it is supported by its leg supports either because the liquid depth is insufficient to float the EFR or the tank is empty.

2. Is the floating roof deck free of pools of standing liquid? §63.1063(d)(1)(i) Y N

3. Inspect the secondary seal.

- Is the secondary seal free of holes and tears?^b §63.1063(d)(1)(ii) Y N/A N
- Is the secondary seal continuously attached around the circumference of the EFR? Y N/A N

4. Perform seal gap measurement of the secondary seal.^b

- Is the accumulated area of gaps between the tank wall and the secondary seal no greater than 21.2 cm² per meter of tank diameter? Y N/A N
- Is the maximum gap width between the tank wall and the seal no greater than 1.27 cm? Y N/A N

Note: Procedures for performing the seal gap measurements and determining the total gap area and maximum gap width are specified in §63.1063(d)(3).

5. Inspect the primary seal.

- Is the primary seal either a mechanical/metallic shoe seal or a liquid-mounted seal?^b §63.1063(a)(1)(ii) and see definitions of "mechanical shoe seal" and "liquid-mounted seal" in §63.1061 Y N
 - Is the primary seal free of holes and tears? §63.1063(d)(1)(ii) Y N
 - Is the primary seal continuously attached around the circumference of the EFR? Y N
-

Table 4-2. (continued)

II. Visual Inspection

• If the primary seal is a mechanical/metallic shoe seal:			
– Does the lower end of the mechanical/metallic shoe seal extend into the stored liquid (no specific distance)?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
– Does the upper end of the mechanical/metallic shoe seal extend a minimum vertical distance of 61 cm above the stored liquid surface?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
– Does a flexible coated fabric span the space between the metal shoe and the tank wall?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• If the primary seal is a liquid-mounted seal, is the seal in contact with the liquid between the wall of the storage tank and the EFR?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
6. Perform seal gap measurements of the primary seal.			
• Is the accumulated area of gaps between the tank wall and the primary seal no greater than 212 cm ² per meter of tank diameter?	<input type="checkbox"/> Y		<input type="checkbox"/> N
• Is the maximum gap width between the tank wall and the seal no more than 3.81 cm?	<input type="checkbox"/> Y		<input type="checkbox"/> N
<i>Note: Procedures for performing the seal gap measurements and determining the total gap area and maximum gap width are specified in §63.1063(d)(3).</i>			
7. Inspect deck openings.			
• Is the lower edge of each opening in the floating roof, except automatic bleeder vents and rim space vents, below the surface of the stored liquid? ^c §63.1063(a)(2)(i)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Except for automatic bleeder vents, rim space vents, deck drains, and leg sleeves, does each opening in the roof have a gasketed cover? ^c §63.1063(a)(2)(ii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Is each gasketed cover, seal, or lid on any opening in the EFR closed, except when it must be open for access? ^c §63.1063(b)(3)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Is the cover on each access hatch and gauge float well designed to be bolted or fastened when closed? ^c §63.1063(a)(2)(vi)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Does each deck fitting gasket, seal, and wiper fit between the surfaces it is intended to seal without any gaps larger than 0.32 cm (1/8 in)? §63.1063(d)(1)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N

Table 4-2. (continued)

II. Visual Inspection

- | | | | |
|--|----------------------------|------------------------------|----------------------------|
| 8. Inspect automatic bleeder vents (vacuum breaker vents). | | | |
| • Is each automatic bleeder vent closed, except when required to be open to relieve excess pressure or vacuum? §63.1063(b)(4) | <input type="checkbox"/> Y | <input type="checkbox"/> N | |
| • Does each automatic bleeder vent have a gasketed lid, pallet, flapper, or other closure device? ^c §63.1063(a)(2)(iii) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| 9. Inspect rim space vents. | | | |
| • Is each rim space vent closed, except when required to be open to relieve excess pressure or vacuum? §63.1063(b)(4) | <input type="checkbox"/> Y | <input type="checkbox"/> N | |
| • Does each rim space vent have a gasketed lid, pallet, flapper, or other closure device? ^c §63.1063(a)(2)(iii) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| 10. Does each deck drain that empties into the stored liquid have either a gasketed cover or a slit fabric seal or similar device that covers at least 90 percent of the area of the opening? ^c §63.1063(a)(2)(v) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| 11. Does each unslotted guide pole well have a pole wiper? ^c §63.1063(a)(2)(vii) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| 12. Does each unslotted guide pole have a gasketed cap on the end of the pole? ^c §63.1063(a)(2)(vii) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| 13. Is the cap on each unslotted guidepole closed, except when gauging the liquid level or taking liquid samples? §63.1063(b)(5) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| 14. Does each slotted guide pole have either of the following: (1) a pole wiper and pole float, or (2) a pole wiper and pole sleeve? ^c §63.1063(a)(2)(viii) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| 15. Does each sample well have either a gasketed cover or a slit fabric seal or similar device that covers at least 90 percent of the area of the opening? ^c §63.1063(a)(2)(v) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |

III. Note All Deficiencies

EFR = external floating roof.

Table 4-2. (continued)

- ^a If an EFR has a liquid-mounted or metallic shoe primary seal as of April 4, 2002, a secondary seal is not required until the next time the tank is emptied and degassed or until November 10, 2013, whichever is earlier. *§63.1063(a)(1)(ii)(C)*
- ^b If the EFR is equipped, as of April 4, 2002, with either: (1) a liquid-mounted primary seal and no secondary seal, (2) a metallic shoe primary seal and no secondary seal, or (3) a vapor-mounted primary seal and a secondary seal, then the seal requirement of a liquid-mounted or metallic shoe primary seal and secondary seal does not apply until the earlier of the following dates: (1) the next time the storage tank is emptied and degassed, or (2) November 10, 2013. *§63.1063(a)(1)(ii)(C)*
- ^c If these requirements were not met for a floating roof in place as of April 4, 2002, then this requirement does not apply until the earlier of the following dates: (1) the next time the storage tank is emptied and degassed, or (2) no later than November 10, 2013. *§63.1063(a)(2)(ix)*

Table 4-3. Compliance Checklist for a Group 1 Storage Tank with an Internal Floating Roof

Note: An external floating roof located in a storage tank to which a fixed roof has been added is defined as an internal floating roof. §63.1061

A “yes” response to a question in this checklist means compliance with that provision, and a “no” response means noncompliance with the requirement. If a question is not applicable, check the “N/A” box (e.g., item 5 would not be applicable if the floating roof has not been set on its legs or other supports).

Storage Tank Identification: _____

I. Review of Records

1. Are all records kept for at least 5 years? §63.1065 Y N

2. Do records show that visual inspections are conducted on either of the following schedules: §63.1063(c)(1)(i) and (ii)
 - (a) Internal and tank-top inspections are conducted as follows:
 - Tank-top visual inspections are conducted at least once per year? Y N/A N
 - Internal visual inspections are conducted each time the storage tank is emptied and degassed, or every 10 years, whichever occurs first? Y N/A N
 - (b) Internal inspections are conducted each time the storage tank is emptied and degassed or every 5 years, whichever occurs first? Y N/A N

Note: The second option is allowed only for storage tanks with both primary and secondary seals.

3. Were **both** of the following recorded for all visual inspections: §63.1065(b)(1)(i) and (ii)
 - (a) Identification of the storage vessel? Y N
 - (b) Date of the inspection? Y N

4. When a failure was detected during a visual inspection, was **all** of the following information recorded: §63.1065(b)(1)(iii) through (v)
 - (a) A description of all inspection failures? Y N/A N
 - (b) A description of all repairs and the dates they were made? Y N/A N
 - (c) The date the storage tank was removed from service (if the inspection was performed while the tank was in operation and repairs can not be completed while operating)? Y N/A N

5. Whenever a floating roof was set on its legs or other supports, was **all** of the following information recorded: §63.1065(c)
 - (a) The date when the floating roof was set on its legs or other supports? Y N/A N

Table 4-3. (continued)

I. Review of Records

- (b) The date when the floating roof was refloated? Y N/A N
- (c) An indication of whether the process of refloating was continuous? Y N/A N
6. If a tank was taken out of service to complete repairs, but it could not be emptied within 45 days of detecting a failure, was **all** of the following information kept to document the decision to request up to two 30-day extensions: §§63.1063(e)(2), 63.1065(d), and 63.1066(b)(4)
- (a) A description of the failure? Y N/A N
- (b) Documentation that alternate storage capacity was not available? Y N/A N
- (c) Schedule of actions taken to make repairs or empty the tank as soon as possible? Y N/A N
7. Was the Administrator or delegated State or local agency notified at least 30 days before each visual inspection (7 days if the inspection was unplanned and could not be foreseen 30 days in advance)? §63.1066(b)(1)
- Note: a delegated State or local agency may waive this requirement.*
8. When a failure was detected during a visual inspection, was a copy of the inspection records submitted in the next compliance report? §63.1066(b)(2) Y N/A N

II. Visual Inspection

Note: The inspector should be advised of the hazards of inspecting an internal floating roof tank that contains a liquid hazardous air pollutant (HAP). An inspector may perform an external (tank-top) visual inspection of a storage tank at any time (i.e., the tank does not need to be taken out of service). However, the inspector will need to have proper respiratory protection before opening the roof hatch to visually inspect, from the fixed roof, the floating deck and seal. An inspector may perform the more thorough internal inspection only when the tank has been taken out of service (i.e., emptied, degassed and cleaned). Unless a tank is taken out of service more frequently than is required by subpart FFFF, this internal inspection can only take place once every 10 years. The inspector should never enter a storage tank to inspect the IFR without first consulting documents that address the safety issues to consider while entering a confined space and while inspecting an IRF that contains HAP – EPA Order 1440.2 and the EPA document *Guidance on Confined Space Entry in NESHAP Inspections of Benzene Storage Vessels* (EPA 455/R-92-003, September 1992).

1. Does the IFR float on the surface of the stored liquid? §63.1063(b)(1) and (2) Y N/A N

Note: The IFR is not required to be floating on the liquid when it is supported by its leg supports either because the liquid depth is insufficient to float the IFR or the tank is empty.

2. Is the floating roof deck free of pools of standing liquid? §63.1063(d)(1)(i) Y N

Table 4-3. (continued)

II. Visual Inspection

3. Inspect the rim seal(s).

- (a) Does the IFR have any one of the following closure devices:^a Y N/A N
§63.1063(a)(1)
- A liquid-mounted primary seal? *See definition of “liquid-mounted seal” in §63.1061*
 - A mechanical/metallic shoe primary seal? *See definition of “mechanical shoe seal” in §63.1061*
 - Both a primary seal and a secondary seal?
- (b) Is the primary seal continuously attached around the circumference of the IFR? Y N
- (c) If the IFR has a secondary seal, is it continuously attached around the circumference of the IFR? Y N/A N
- (d) Are there no visible gaps between the seal(s) and the wall of the storage tank? Y N
- (e) Is the primary seal free of holes and tears? *§63.1063(d)(1)(ii)* Y N
- (f) If the IFR has a secondary seal, is it free of holes and tears? *§63.1063(d)(1)(ii)* Y N/A N
- (g) If the primary seal is a mechanical/metallic shoe seal:
- Does the lower end of the metallic shoe seal extend into the stored liquid (no specific distance)? Y N/A N
 - Does a flexible coated fabric span the space between the metal shoe and the tank wall? Y N/A N
- (h) If the primary seal is a liquid-mounted seal, is the seal in contact with the liquid between the wall of the storage tank and the IFR? Y N/A N

4. Inspect deck openings.

- (a) If the IFR is non-contact, is the lower edge of each opening in the floating roof, except automatic bleeder vents and rim space vents, below the surface of the stored liquid?^b *§63.1063(a)(2)(i)* Y N/A N
- (b) Except for automatic bleeder vents, rim space vents, deck drains, leg sleeves, and openings for fixed roof support columns, does each opening in the roof have a gasketed cover?^b *§63.1063(a)(2)(ii)* Y N/A N
- (c) Is each gasketed cover, seal, or lid on any opening in the IFR closed, except when it must be open for access?^b *§63.1063(b)(3)* Y N/A N
- (d) Does each opening for a fixed roof support column have either a flexible fabric sleeve seal or a gasketed cover?^b *§63.1063(a)(2)(iv)* Y N/A N
-

Table 4-3. (continued)

II. Visual Inspection

(e) Is the cover on each access hatch and gauge float well designed to be bolted or fastened when closed? ^b §63.1063(a)(2)(vi)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(f) Does each deck fitting gasket, seal, and wiper fit between the surfaces it is intended to seal without any gaps larger than 0.32 cm (1/8 in)? §63.1063(d)(1)(v)	<input type="checkbox"/> Y		<input type="checkbox"/> N
5. Inspect automatic bleeder vents (vacuum breaker vents).			
(a) Is each automatic bleeder vent closed, except when required to be open to relieve excess pressure or vacuum? §63.1063(b)(4)	<input type="checkbox"/> Y		<input type="checkbox"/> N
(b) Does each automatic bleeder vent have a gasketed lid, pallet, flapper, or other closure device? ^b §63.1063(a)(2)(iii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
6. Inspect each rim space vent.			
(a) Is each rim space vent closed, except when required to be open to relieve excess pressure or vacuum? §63.1063(b)(4)	<input type="checkbox"/> Y		<input type="checkbox"/> N
(b) Does each rim space vent have a gasketed lid, pallet, flapper, or other closure device? ^b §63.1063(a)(2)(iii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
7. Is each deck drain that empties into the stored liquid have either a gasketed cover or a slit fabric seal or similar device that covers at least 90 percent of the area of the opening? ^b §63.1063(a)(2)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
8. Does each unslotted guide pole well have a pole wiper? ^b §63.1063(a)(2)(vii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
9. Does each unslotted guide pole have a gasketed cap on the end of the pole? ^b §63.1063(a)(2)(vii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
10. Is the cap on each unslotted guidepole closed, except when gauging the liquid level or taking liquid samples? §63.1063(b)(5)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
11. Does each slotted guide pole have either of the following: (1) a pole wiper and pole float, or (2) a pole wiper and pole sleeve? ^b §63.1063(a)(2)(viii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
12. Does each sample well have either a gasketed cover or a slit fabric seal or similar device that covers at least 90 percent of the area of the opening? ^b §63.1063(a)(2)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N

III. Note All Deficiencies

Table 4-3. (continued)

III. Note All Deficiencies

IFR = internal floating roof.

- ^a If the IFR has a vapor-mounted seal as of April 4, 2002, the requirement for a liquid-mounted seal, mechanical/metallic shoe seal, or a secondary seal is not required until the next time the storage tank is emptied and degassed or November 10, 2013, whichever is earlier. *§63.1063(a)(1)(ii)(D)*
- ^b If these requirements were not met for a floating roof in place as of April 4, 2002, then this requirement does not apply until the earlier of the following dates: (1) the next time the storage tank is emptied and degassed, or (2) no later than November 10, 2013. *§63.1063(a)(2)(ix)*

Table 4-4. Compliance Checklist for Group 1 Storage Tanks Equipped with a Control Device

Note: A “yes” response to a question in this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement.

Note: Use this checklist in addition to the checklists in section 9 for the closed vent system and the applicable checklist from section 10 for the type of control device that is used to reduce emissions from the storage tank. Use the checklist in Table 4-6 instead of this checklist if the facility complies with the alternative standard in §63.2505.

Storage Tank Identification: _____

I. Review of Records

1. Does the facility keep all of the following records of periods of planned routine maintenance for the control device: §63.998(d)(2)(ii)
 - (a) Time of day and date when each period of planned routine maintenance starts? Y N
 - (b) Time of day and date when each period of planned routine maintenance ends? Y N
 - (c) Description of the type of maintenance performed? Y N

2. Do both of the following occur each time the facility has periods of planned routine maintenance that exceed 240 hr/yr: §63.2470(d)
 - (a) The facility submitted an application to the Administrator requesting approval of an extension to no more than 360 hr/yr that contained both of the following:
 - An explanation of why the extension is needed? Y N
 - A statement affirming that no material will be added to the storage tank between the time the 240 hr limit is exceeded and the date the control device is returned to service? Y N
 - (b) The application was submitted at least 60 days before the 240 hr/yr limit is exceeded? Y N

3. Are all records kept for at least 5 years? §63.10(b)(1) Y N

II. Note All Deficiencies

Table 4-5. Compliance Checklist for Storage Tanks Using Vapor Balancing

Note: Use this checklist when emissions from a storage tank are vapor balanced to the tank truck, railcar, or barge that delivered material to the storage tank. This checklist is designed only for assessing operations at the miscellaneous organic chemical manufacturing source; it does not address requirements for offsite facilities that clean or reload tank trucks, railcars, or barges. A “yes” response to a question in this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement.

Storage Tank Identification: _____

I. Review of Records

- | | |
|---|--|
| 1. Does the facility have records that the tank trucks, railcars, and/or barges from which the storage tank is filled meet U.S. DOT pressure requirements in 49 CFR part 180, 49 CFR 173.31, or 40 CFR 61.304(f), respectively?
<i>§63.1259(b)(12) as referenced from §§63.2470(e) and 63.1253(f)(2)</i> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 2. Does the facility have a record of the pressure relief vent setting?
<i>§63.1259(b)(12) as referenced from §§63.2470(e) and 63.1253(f)(5)</i> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 3. If the setting in item “2” above is less than 2.5 psig, did the facility provide rationale in the notification of compliance status report explaining why the lower value is sufficient to prevent breathing losses at all times?
<i>§63.2470(e)(3)</i> | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 4. Does the facility have written certification from facilities that reload and/or clean the tank trucks, railcars, and barges that they will either reduce the HAP content of the displaced vapor by ≥ 95 percent (and meet the compliance requirements in subpart FFFF) or vapor balance to the tank from which the tank truck or railcar is loaded? <i>§63.1253(f)(7)(i) as referenced from §63.2470(e)</i> | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 5. For each leak detected during quarterly monitoring, does the facility have all of the following records: <i>§§63.1253(f)(5)(iii), 63.1255(g)(4), and 63.1259(b)(12)</i> | |
| (a) The instrument? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) The equipment identification number? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) The operator name, initials, or identification number? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) Date the leak was detected? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (e) Date of first repair attempt? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (f) Date of successful repair? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (g) Maximum instrument reading measured by Method 21 after the leak is successfully repaired or determined to be nonreparable? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 6. Are all records kept for at least 5 years? <i>§63.10(b)(1)</i> | <input type="checkbox"/> Y <input type="checkbox"/> N |
-

Table 4-6. Alternative Standard Checklist

Note: Use this checklist when emissions from a Group 1 storage tank are vented to a control device and the facility complies with the alternative standard specified in §63.2505. If the control device is also used to control process vent emissions, then the applicable checklists in Section 11 may be used to evaluate compliance with both the process vent and storage tank emission limits; supplement that checklist with questions regarding planned routine maintenance of the control device in this checklist. A “yes” response to a question in this checklist means compliance with that requirement, and a “no” response means noncompliance with the requirement. If a question is not applicable, check the “N/A” box.

Storage Tank Identification: _____

I. Review of Records

1. Does the facility have all of the following initial compliance records:

(a) Documentation that the Administrator was notified at least 60 days before conducting a performance evaluation of the CEMS? §63.8(e)(2)	<input type="checkbox"/> Y	<input type="checkbox"/> N
(b) Results of CEMS performance evaluations (and measurements needed to determine conditions of performance evaluation)? §63.10(b)(2)(viii) and (ix)	<input type="checkbox"/> Y	<input type="checkbox"/> N
(c) Identification of target analytes or predominant HAP that are used in calibrating the CEMS in the notification of compliance status report? §§63.2505(b)(3) and 63.2450(j)(2)	<input type="checkbox"/> Y	<input type="checkbox"/> N
(d) Inclusion of the storage tank in all applicable MCPU operating scenarios? §63.2525(b)	<input type="checkbox"/> Y	<input type="checkbox"/> N
(e) Written copies of all of the procedures (e.g., calibrations) that are part of the quality control program? §§63.8(d)(2) and 63.10(c)(14)	<input type="checkbox"/> Y	<input type="checkbox"/> N

2. Does the facility have all of the following ongoing quality control records:

(a) CEMS calibration checks? §63.10(b)(2)(x)	<input type="checkbox"/> Y	<input type="checkbox"/> N
(b) Adjustments and maintenance performed on the CEMS? §63.10(b)(2)(xi)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A <input type="checkbox"/> N

3. Does the facility have all of the following operating records:

(a) All CEMS measurements when the storage tank is in service (including periods of SSM, unavoidable CEMS breakdowns, and out-of-control periods)? §63.10(b)(2)(vii) and (c)(1)	<input type="checkbox"/> Y	<input type="checkbox"/> N
(b) Date and time when CEMS was malfunctioning or inoperative (except for zero [low-level] and high-level checks)? §§63.10(b)(2)(vi) and (c)(5)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A <input type="checkbox"/> N
(c) Nature and cause of malfunctions (if known) and corrective actions taken? §63.10(c)(10) and (11)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A <input type="checkbox"/> N
(d) Date and time when CEMS was out of control (e.g., calibration drift exceed specifications or CEMS fails cylinder gas audit)? §63.10(b)(2)(vi) and (c)(6)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A <input type="checkbox"/> N

Table 4-6. (continued)

I. Review of Records

(e) Date and time of each deviation from the outlet concentration emission limit, and whether or not the deviation occurred during a period of startup, shutdown, and malfunction? §63.2525(h)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
4. Are the CEMS data (excluding data collected when the CEMS was out of control) reduced to operating day averages for comparison with the outlet concentration emission limits? §§63.2505(b)(7) and 63.8(c)(7)(ii)		<input type="checkbox"/> Y	<input type="checkbox"/> N
5. If the storage tank emissions are combined with supplemental gases before the control device, do records show the facility does either of the following:	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(a) Corrects the concentrations to account for dilution caused by supplemental gases using the procedures specified in §§63.2450(i) and 63.2460(c)(6)? §63.2450(j)(5)			
(b) Monitors operating parameters as specified in §63.1258(b)(5)(ii)? §63.2505(b)			
6. If the facility uses the exemption for periods of planned routine maintenance for a shared control device, are storage tank emissions the only emissions that are not controlled during such periods? §63.2505(b)(9)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
7. Does the facility keep all of the following records of periods of planned routine maintenance for the control device: §§63.998(d)(2)(ii) and 63.2505(b)(9)			
(a) Time of day and date when each period of planned routine maintenance starts?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(b) Time of day and date when each period of planned routine maintenance ends?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(c) Description of the type of maintenance performed?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
8. Do both of the following occur each time the facility has periods of planned routine maintenance that exceed 240 hr/yr: §§63.2470(d) and 63.2505(b)(9)			
(a) The facility submitted an application to the Administrator requesting approval of an extension to no more than 360 hr/yr that contained both of the following:			
• An explanation of why the extension is needed?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• A statement affirming that no material will be added to the storage tank between the time the 240 hr limit is exceeded and the date the control device is returned to service?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(b) The application was submitted at least 60 days before the 240 hr/yr limit is exceeded?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N

Table 4-6. (continued)

I. Review of Records

9. If the facility complies with the 95 percent reduction emission limit for scrubbers used to control hydrogen halide and halogen HAP generated by a combustion device, does the facility have the following records:
- (a) Continuous monitoring records for all of the following scrubber operating parameters: §§63.994(c), 63.2505(b)(5)(ii), and 63.2450(k) (Note that the continuous records are not required under alternative recordkeeping provisions in §63.998(b)(1)(iii) or (b)(5).)
- pH or caustic strength? Y N/A N
 - Liquid flow? Y N/A N
 - Gas flow (if complying with §63.994(c)(1)(ii)(B))? Y N/A N
- (b) Performance test and operating limits that were determined during the test for pH (or caustic strength) and liquid-to-gas ratio? §§63.2505(b)(5)(i), 63.998(a)(2)(ii)(D), and 63.999(a)(2) and (b)(3) Y N/A N
- (c) Daily averages of pH or caustic strength and liquid-to-gas ratio (or a record that all values for an operating day met the operating limit)? §§63.2505(b)(7) and 998(b)(3) Y N/A N
- (d) The following CPMS records: §63.998(c)(1) and (d)(5)
- Procedure used for calibrating the CPMS? Y N/A N
 - Date and time of completion of calibration and preventive maintenance? Y N/A N
 - “As found” and “as left” CPMS readings, whenever an adjustment is made that affects the CPMS reading, and a “no adjustment” statement otherwise? Y N/A N
 - Start time and duration (or start and stop times) of any periods when the CPMS is inoperative? Y N/A N
 - Occurrence and duration of each start-up, shutdown, and malfunction during which excess emissions occur? Y N/A N
 - If excess emissions occur during a period of SSM, documentation that procedures in the SSM plan were followed or a description of actions taken? Y N/A N
 - Documentation of each SSM event? Y N/A N
 - If no excess emissions occur during an SSM event, documentation affirming this result? Y N/A N
 - Occurrence and cause of periods when the monitored parameters do not meet the operating limits? Y N/A N
10. Are all records kept for at least 5 years? §63.10(b)(1) Y N

