



---

United States  
Environmental Protection  
Agency

# **IMPLEMENTATION TOOL FOR THE MISCELLANEOUS COATING MANUFACTURING NESHAP**

*[This page intentionally left blank.]*

# **Implementation Tool for the Miscellaneous Coating Manufacturing NESHAP**

Prepared for:

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

Prepared by:

RTI International\*  
3040 Cornwallis Road  
Research Triangle Park, North Carolina 27709-2194

---

\* RTI International is a trade name of Research Triangle Institute.

## **Disclaimer**

The statements in this document are intended solely for compliance assistance. This document is to be used in conjunction with the regulations, not in place of them. It is not intended, nor can it be relied on, to create any rights enforceable by any party in litigation with the United States. The U.S. Environmental Protection Agency (EPA) and State officials may decide to follow the guidance provided in this document, or to act in variance with it, based on analysis of specific site circumstances. This guidance may be revised without public notice to reflect possible rule changes and changes in EPA's policy.

Please be aware that EPA has made its best effort to present an accurate summary of the regulatory requirements in the miscellaneous coating manufacturing NESHAP as promulgated on December 11, 2003, and amended on May 13, 2005, and December 21, 2005. Note that it is not intended to summarize every option and detail of the rule. Finally, in the event that there are typing errors or deviations from the final rule, the final rule stands.

## Table of Contents

Section	Page
Disclaimer .....	ii
Section 1 – Applicability and Compliance Dates .....	1-1
Section 2 – Requirements for Process Vessels .....	2-1
Section 3 – Requirements for Storage Tanks.....	3-1
Section 4 – Requirements for Equipment Leaks.....	4-1
Section 5 – Requirements for Wastewater and Heat Exchange Systems.....	5-1
Section 6 – Requirements for Transfer Operations.....	6-1
Section 7 – Requirements for Closed-Vent Systems and Control Devices.....	7-1
Section 8 – Reporting Requirements .....	8-1

## List of Figures

Figure	Page
1-1 Applicability of subpart HHHHH.....	1-3
1-2 Timeline of compliance events for subpart HHHHH .....	1-6
2-1 Flowchart of applicability and control requirements for process vessels. ....	2-3
3-1 Flowchart of applicability and control requirements for storage tanks. ....	3-3
4-1 Flowchart of applicability and control requirements for equipment leaks. ....	4-3
5-1 Flowchart of applicability and control requirements for wastewater streams. ....	5-3
6-1 Flowchart of applicability and control requirements for transfer operations.....	6-3

## List of Tables

Table	Page
1-1 Compliance Checklist for Subpart HHHHH Applicability Determination.....	1-7
1-2 Identification of Applicable Emission Limits and Work Practice Standards .....	1-8
2-1 Compliance Checklist for Emissions Averaging for Process Vessel Vents.....	2-7
3-1 Compliance Checklist for Storage Tanks with an External Floating Roof.....	3-6
3-2 Compliance Checklist for Storage Tanks with an Internal Floating Roof.....	3-11
3-3 Compliance Checklist for Storage Tanks Equipped with a Control Device.....	3-16
3-4 Compliance Checklist for Storage Tanks Using Vapor Balancing.....	3-17
4-1 Compliance Checklist for Equipment Leaks Monitored by Monthly Sensory Observations .....	4-5
4-2 Compliance Checklist for the LDAR Program in Subpart TT for Equipment Leaks .....	4-7
4-3 Compliance Checklist for the LDAR Program in Subpart UU for Equipment Leaks .....	4-13
4-4 Compliance Checklist for Pressure Testing to Identify Equipment Leaks .....	4-22
4-5 Checklist for Determining Compliance with the Enclosed Process Alternative for Equipment Leaks.....	4-24
5-1 Compliance Checklist for Wastewater.....	5-5

---

5-2	Compliance Checklist for Heat Exchange Systems Requiring Leak Detection .....	5-7
7-1	Compliance Checklist for Bypass Line Provisions for Closed-Vent Systems.....	7-3
7-2	Compliance Checklist for Closed-Vent Systems.....	7-5
7-3	Compliance Checklist for Flares.....	7-7
7-4	Compliance Checklist for Thermal Incinerators.....	7-9
7-5	Compliance Checklist for Catalytic Incinerators.....	7-13
7-6	Compliance Checklist for a Boiler or Process Heater with a Design Heat Input Capacity Less than 44 Megawatts and the Vent Stream Is Not Introduced with the Primary Fuel .....	7-17
7-7	Compliance Checklist for a Boiler or Process Heater with a Design Heat Input Capacity Greater than 44 Megawatts or the Emission Stream Is Introduced with the Primary Fuel.....	7-21
7-8	Compliance Checklist for a Regenerative Carbon Adsorber .....	7-22
7-9	Compliance Checklist for an Absorber.....	7-25
7-10	Compliance Checklist for a Condenser.....	7-29
7-11	Compliance Checklist for a Control Device Not Specifically Listed .....	7-33
7-12	Compliance Checklist for a Scrubber .....	7-34
8-1	Inspection Checklist for Notification of Compliance Status Report.....	8-3
8-2	Inspection Checklist for Compliance Reports .....	8-5

## **Section 1**

### **Applicability and Compliance Dates**

*[This page intentionally left blank.]*



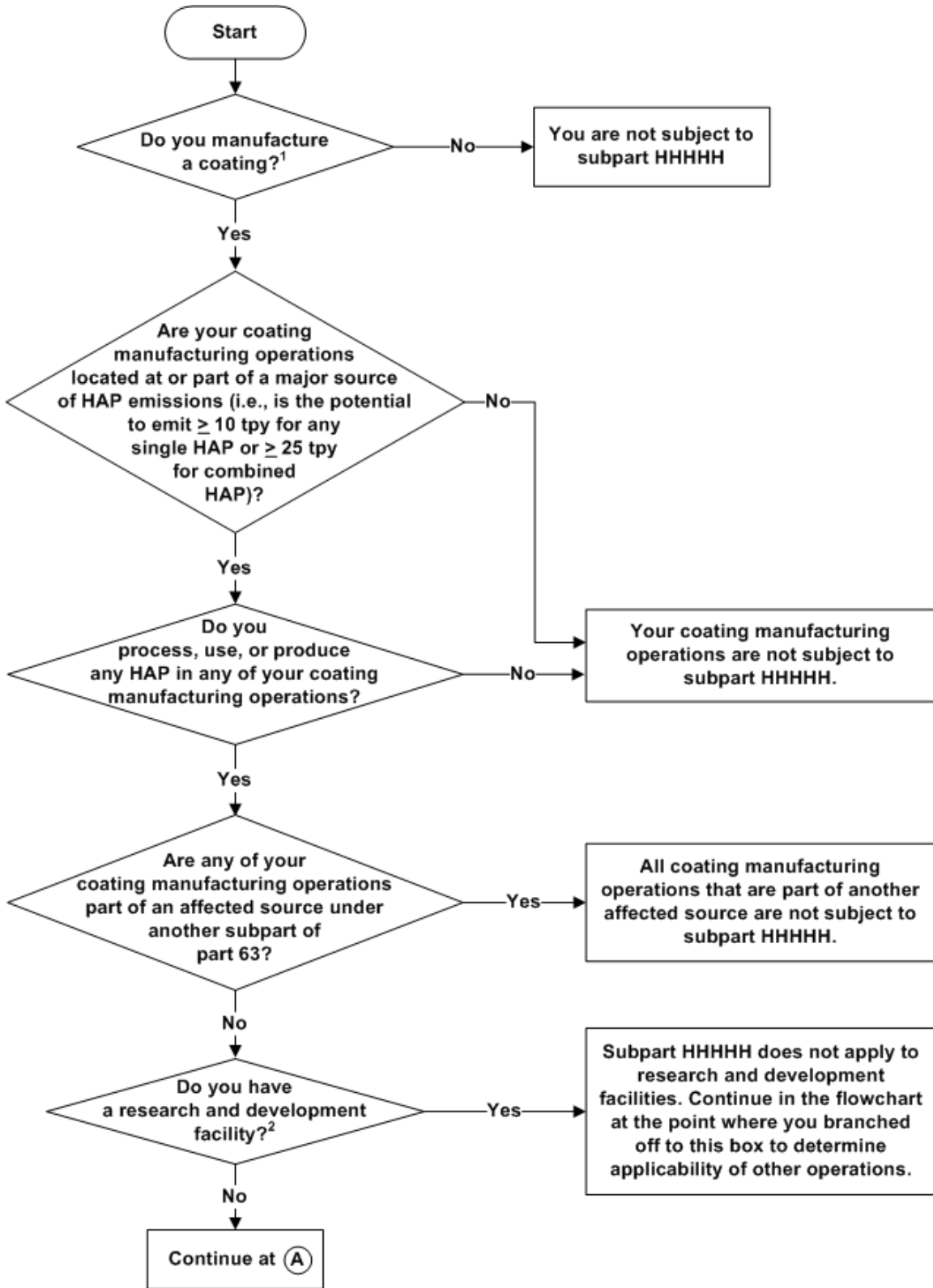


Figure 1-1. Applicability of subpart HHHHH.

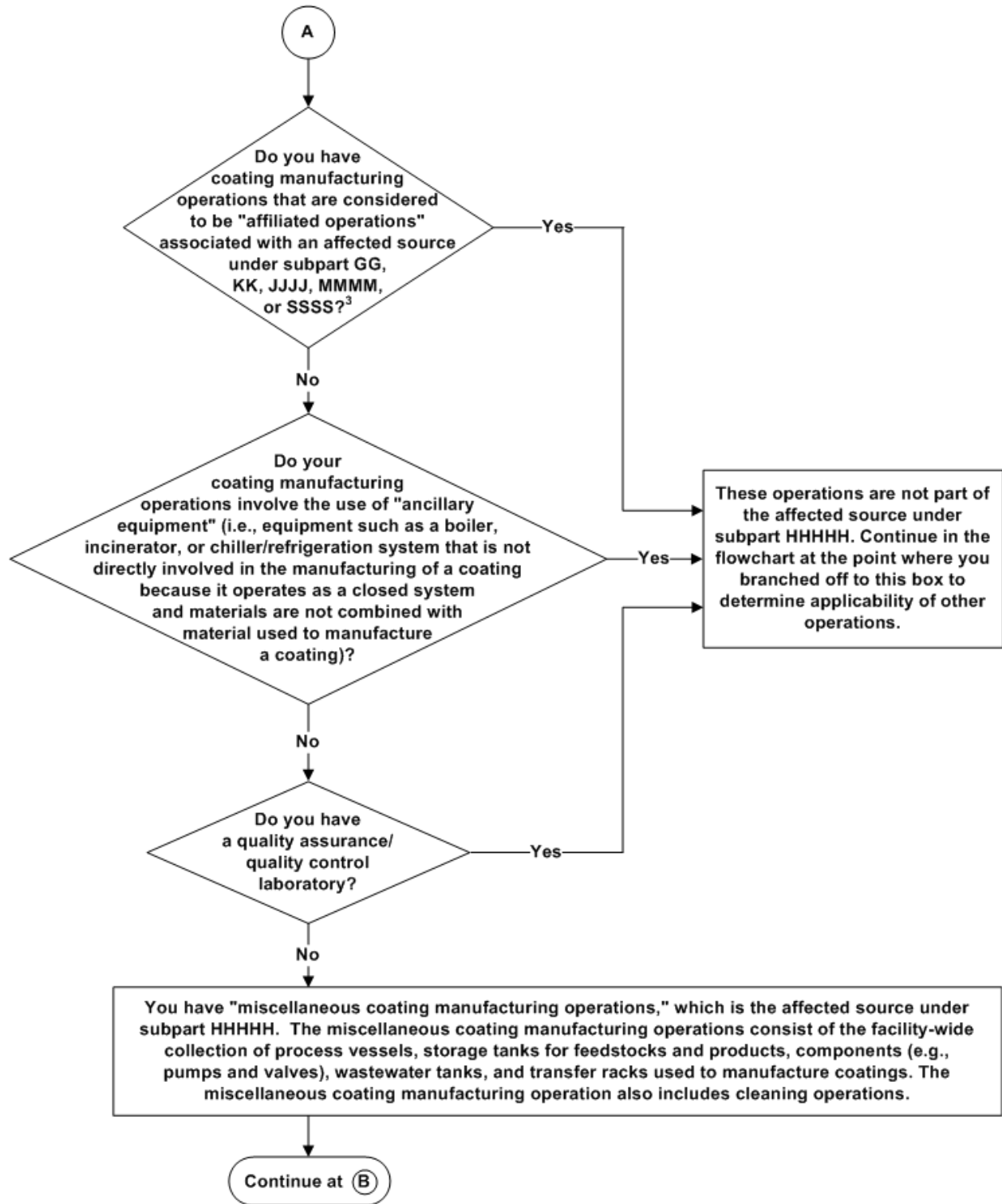
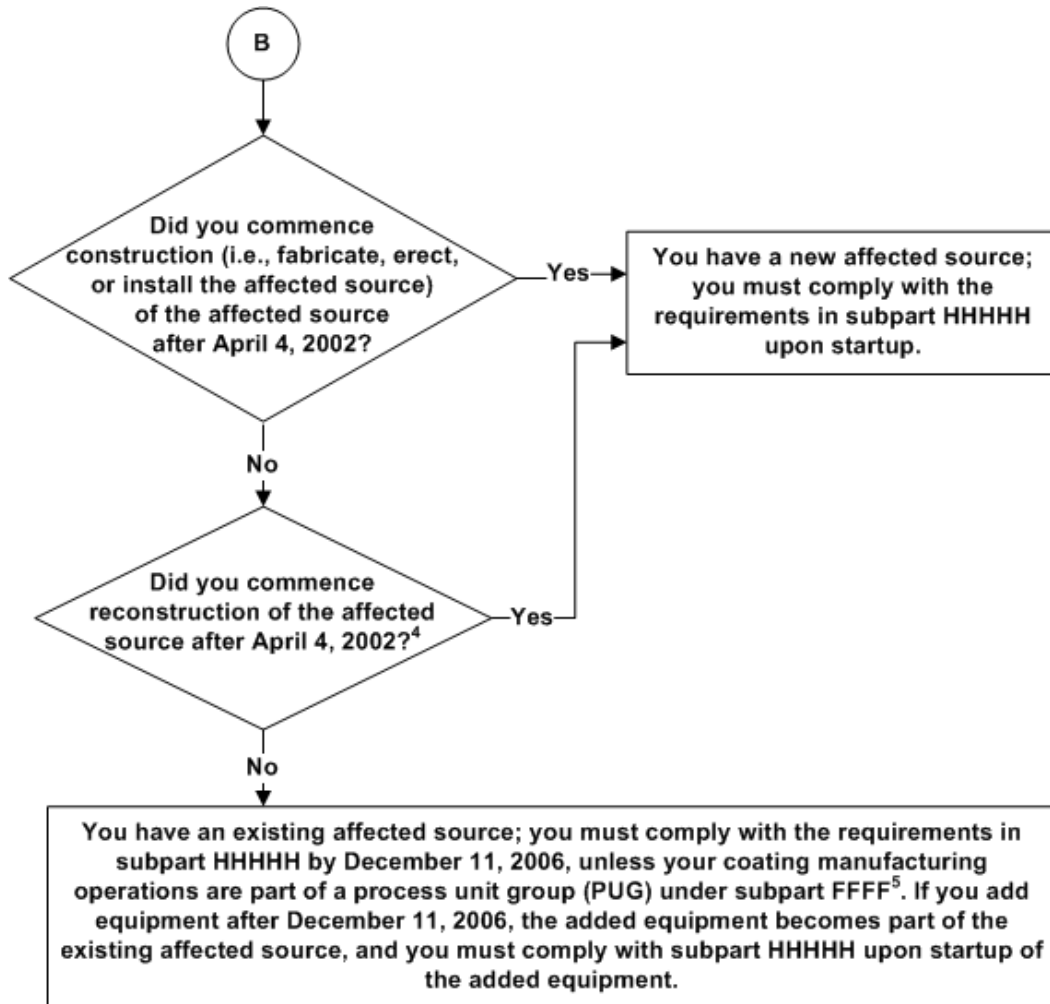


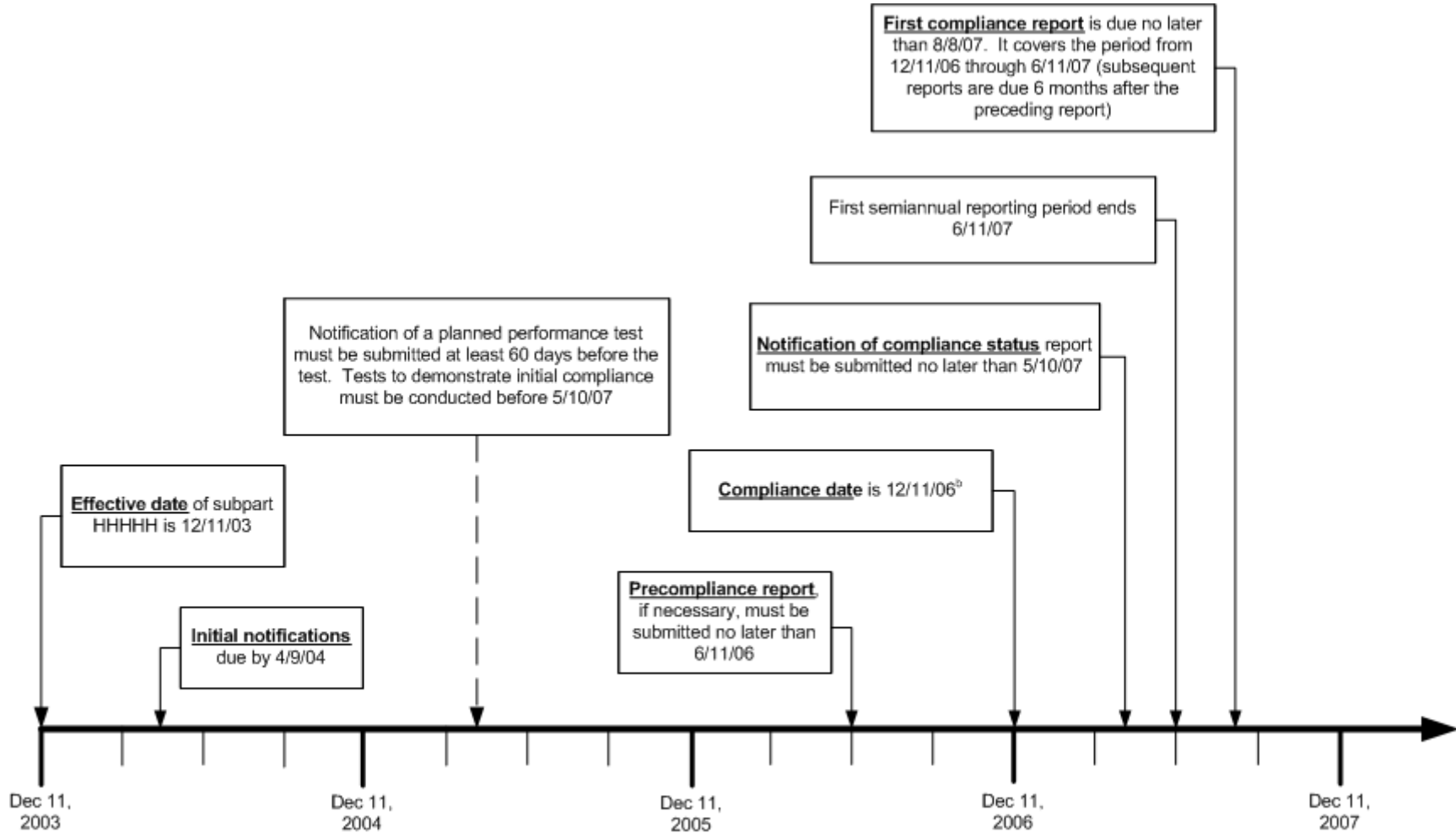
Figure 1-1. (continued)



**Key definitions:**

- <sup>1</sup> "Coating" means a material such as a paint, ink, or adhesive that is intended to be applied to a substrate and consists of a mixture of resins, pigments, solvents, and/or other additives, where the material is produced by a manufacturing operation where materials are blended, mixed, diluted, or otherwise formulated. Coating does not include materials made in processes where a formulation component is synthesized by chemical reaction or separation activity and then transferred to another vessel where it is formulated to produce a material used as a coating, where the synthesized or separated component is not stored prior to formulation. Typically, coatings include products described by the following North American Industry Classification System (NAICS) codes, code 325510, Paint and Coating Manufacturing, code 325520, Adhesive and Sealant Manufacturing, and code 325910, Ink Manufacturing.
- <sup>2</sup> "Research and development facility" means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.
- <sup>3</sup> "Affiliated operations" include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater.
- <sup>4</sup> "Reconstruction" means the replacement of components of an affected or previously unaffected stationary source to such an extent that (1) the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source and (2) it is technologically and economically feasible for the reconstructed source to meet the requirements in subpart HHHHH.
- <sup>5</sup> Section 63.8090(c) specified that a PUG that includes coating manufacturing operations must be in compliance with subpart FFFF by the applicable compliance date in §63.2445 (May 10, 2008 for an existing source).

**Figure 1-1. (continued)**



<sup>a</sup> Dates shown are for **existing sources**. The intervals between events are the same for new sources, but the compliance date is the date of startup. Additionally, the initial notification doesn't apply, but a request for approval of construction or reconstruction must be submitted.  
<sup>b</sup> If coating manufacturing operations are included in a process unit group (PUG) under subpart FFFF, the compliance date is May 10, 2008.

**Figure 1-2. Timeline of compliance events for subpart HHHHH.<sup>a</sup>**

**Table 1-1. Compliance Checklist for Subpart HHHHH Applicability Determination**

Note: Use this checklist to determine if a facility is subject to subpart HHHHH. Refer to Figure 1-1 for definitions and other information to help determine applicability of subpart HHHHH.

1. Does the facility manufacture a coating?
  - Yes, or  
Continue with this checklist
  - No  
Stop. Your facility is not subject to subpart HHHHH.
2. Are your coating manufacturing operations located at or part of a major source of HAP emissions?
  - Yes, or  
Continue with this checklist
  - No  
Stop. Your facility is not subject to subpart HHHHH.
3. Does the facility process, use, or produce HAP in the production of a coating?
  - Yes, or  
Continue with this checklist
  - No  
Stop. Your facility is not subject to subpart HHHHH.
4. Are your coating manufacturing operations part of an affected source under another subpart of part 63?
  - Yes, or  
Your facility is not subject to subpart HHHHH.
  - No  
Your facility is subject to subpart HHHHH. Continue with the checklist in Table 2-1.

**Table 1-2. Identification of Applicable Emission Limits and Work Practice Standards**

Note: Use the tabular summary in Section I of this checklist to identify the applicable emission limits and work practice standards for the facility. Then use Sections II and III of this checklist and the referenced checklists to determine compliance with the applicable emission limits and work practice standards.

Note: A “yes” response to question in section II or III 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. Summary of Requirements**

1. Do you have process vessels (> 250 gal) that contain HAP when producing a coating at an existing source?  Y  N

If yes, which of the following types of emission limits or work practice standards in Table 1 to subpart HHHHH or §§63.8050 or 63.8055 apply to the process vessels: (check all that apply)

- Equip portable vessels with a cover or lid that must be in place at all times when the vessel contains HAP, except for material additions and sampling?
- Equip stationary vessels with a cover or lid and a capture system to route emissions to a control device that achieves overall reduction in organic HAP of 60 percent or 75 percent, depending on the HAP vapor pressure?

*Note: The cover or lid must be closed at all times when the vessel contains HAP, except for material additions and sampling.*

- Equip stationary vessels with a tightly fitting vented cover or lid and a closed-vent system to route emissions to a:

*Note: The cover or lid must be closed at all times when the vessel contains HAP, except for material additions and sampling.*

- control device that reduces organic HAP emissions by 60 percent or 75 percent, depending on the HAP vapor pressure?
- flare?
- condenser that reduces the outlet gas temperature to levels specified in item 2.b.iii in Table 1 to subpart HHHHH?
- Emissions average for stationary vessels?

Table 1-2. (continued)

**I. Summary of Requirements**

- Alternative 5 percent by weight HAP limit in coating products option?

*Note: The HAP percentage may be determined by test methods as specified in §63.8055(b)(1) through (3). Alternatively, as specified in §63.8055(b)(4), formulation data from raw material suppliers may be used to determine the HAP percent if the formulation data identify each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens (see 29 CFR 1910.1200(d)(4)), and at 1.0 percent by mass or more for other compounds.*

2. Do you have process vessels (> 250 gal) that contain HAP when producing a coating at a new source?  Y  N

If yes, which of the following types of emission limits or work practice standards in Table 1 to subpart HHHHH apply to the process vessels: (check all that apply)

- Equip portable and stationary vessels with a tightly fitting vented cover or lid and a closed-vent system to route emissions to a:

*Note: The cover or lid must be closed at all times when the vessel contains HAP, except for material additions and sampling.*

- non-flare control device that reduces organic HAP emissions by  $\geq 95$  percent?  
 flare?  
 condenser that reduces the outlet gas temperature to levels specified in item 3.a.iii in Table 1 to subpart HHHHH?

3. Do you have Group 1a or 1b storage tanks?  Y  N

If yes, which of the following types of emission limits in Table 2 to subpart HHHHH apply to the storage tanks:

- Internal floating roof? (go to checklist in Table 3-1)  
 External floating roof? (go to checklist in Table 3-2)  
 Vent through closed-vent system to a control device? (go to checklist in Table 3-3)  
 Vapor balance? (go to checklist in Table 3-4)

4. Do you have equipment (i.e., pumps, valves, etc.) in organic HAP service (i.e., fluid is at least 5 percent by weight of total organic HAP)?  Y  N

If yes, which types of requirements in Table 3 to subpart HHHHH apply to the equipment leaks: (check all that apply)

- Monitor for leaks once per month using sensory methods as specified in subpart R? (go to checklist in Table 4-1)

Table 1-2. (continued)

**I. Summary of Requirements**

- 
- Use LDAR methods specified in subpart TT? (go to checklist in Table 4-2)
- Use LDAR methods specified in subpart UU? (go to checklist in Table 4-3)
- Pressure test? (go to checklist in Table 4-4)
- Enclosed process alternative? (go to checklist in Table 4-5)
5. Do you have Group 1 wastewater streams?  Y  N
- If yes, which of the following types of emission limits and work practice standards in Table 4 to subpart HHHHH apply to the wastewater stream: (check all that apply)
- Convey using hard piping to hazardous waste treatment (or to storage prior to transfer offsite for treatment as hazardous waste)? (go to checklist in Table 5-1)
- Convey to onsite enhanced biological treatment or to a wastewater tank prior to transfer offsite for treatment in an enhanced biological treatment unit? (go to checklist in Table 5-1)
6. Do you have a heat exchange system? (if yes, go to checklist in Table 5-2)  Y  N
7. Do you have Group 1 transfer operations?  Y  N
8. Do you have halogenated vent streams from process vessels (> 250 gal) and/or Group 1 transfer operations that are controlled in a non-flare combustion device?  Y  N
- If yes, which of the following control devices from Table 1 or 5 of subpart HHHHH apply to the process vessels and/or transfer operations: (check all that apply)
- Use a halogen reduction device after the combustion device to reduce hydrogen halide and halogen HAP emissions? or
- Use a halogen reduction device before the combustion device to reduce halogen atom mass emissions?
9. Do you use a control device to control emissions from process vessels (> 250 gal), Group 1a or 1b storage tanks, and/or Group 1 transfer operations?  Y  N
- If yes, which of the following control devices do you use: (check all that apply)
- Flares? (go to checklists in Tables 7-1, 7-2, and 7-3)
- Note: A flare is allowed only for nonhalogenated vent streams.*
- Thermal incinerator? (go to checklists in Tables 7-1, 7-2, and 7-4)
- Catalytic incinerator? (go to checklists in Tables 7-1, 7-2, and 7-5)
-



Table 1-2. (continued)

**I. Summary of Requirements**

- Boiler or process heater with a design heat input capacity < 44 MW and the vent stream is not introduced with the primary fuel? (go to checklists in Tables 7-1, 7-2, and 7-6)
- Boiler or process heater with a design heat input capacity  $\geq$  44 MW or the emission stream is introduced with the primary fuel? (go to checklists in Tables 7-1, 7-2, and 7-7)
- Regenerative carbon adsorber? Go to checklists in Tables 7-1, 7-2, and 7-8)
- Absorber? (go to checklists in Tables 7-1, 7-2, and 7-9)
- Condenser? (go to checklists in Tables 7-1, 7-2, and 7-10)
- Other control device not listed? (go to checklists in Tables 7-1, 7-2, and 7-11)
- Halogen scrubber? (go to checklists in Tables 7-1, 7-2, and 7-12)

*Note: If you use a series of control devices, the checklists in Tables 7-1 and 7-2 would be used only once.*

**II. Review of Records**

1. Are records of the following information, as applicable, kept for each storage tank? §§63.1065(a) and 63.8075(d)(2)(i)

- |  |                            |                              |                            |
|--|----------------------------|------------------------------|----------------------------|
| (a) Dimensions of the storage tank?                          | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (b) Capacity of storage tank?                                | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (c) Identification of the liquid stored in the storage tank? | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |

*Note: Section 63.1065(a) explicitly requires all of these records for Group 1 storage tanks that are equipped with floating roofs. Although subpart HHHHH does not explicitly require these records for Group 2 storage tanks or Group 1 storage tanks not controlled using floating roofs, §63.8075(d)(2)(i) requires the results of applicability determinations to be included in the notification of compliance status report. The information described by these records is needed to make those applicability determinations. Thus, all of the records are required for Group 1 storage tanks that are part of an affected source under subpart HHHHH. Any individual record is sufficient to demonstrate that a storage tank is a Group 2 storage tank. These are the only requirements for Group 2 storage tanks.*

2. Has the facility submitted a notification of compliance status report?  Y  N/A  N

**Table 1-2. (continued)**

**III. Visual Inspections**

1. Is each process vessel that contains HAP equipped with the appropriate type of cover or lid as noted in the tabular summary of requirements above, and is it closed?  Y  N/A  N

*Note: These requirements do not apply if the process vessel has a capacity < 250 gal, or the facility is complying with the 5 percent by weight HAP in the coating product alternative.*

*Note: The cover or lid may be opened for material addition and sampling.*

2. If the control device is a condenser that reduces the outlet gas temperature to levels as specified in Table 1 to subpart HHHHH, is the outlet gas temperature at or below the specified temperature?  Y  N/A  N
3. If a capture system is used to collect emissions from process vessels, is its design consistent with the description of the system in the notification of compliance status report, and is the exhaust operating (i.e., air is flowing)? §63.8075(d)(2)(ii)  Y  N/A  N
4. If transfer operation emissions are vapor balanced to the originating storage tank, is the vapor balancing system in place and operating?  Y  N/A  N

**IV. Note All Deficiencies**

---



---



---



---



---



---



---



---



---

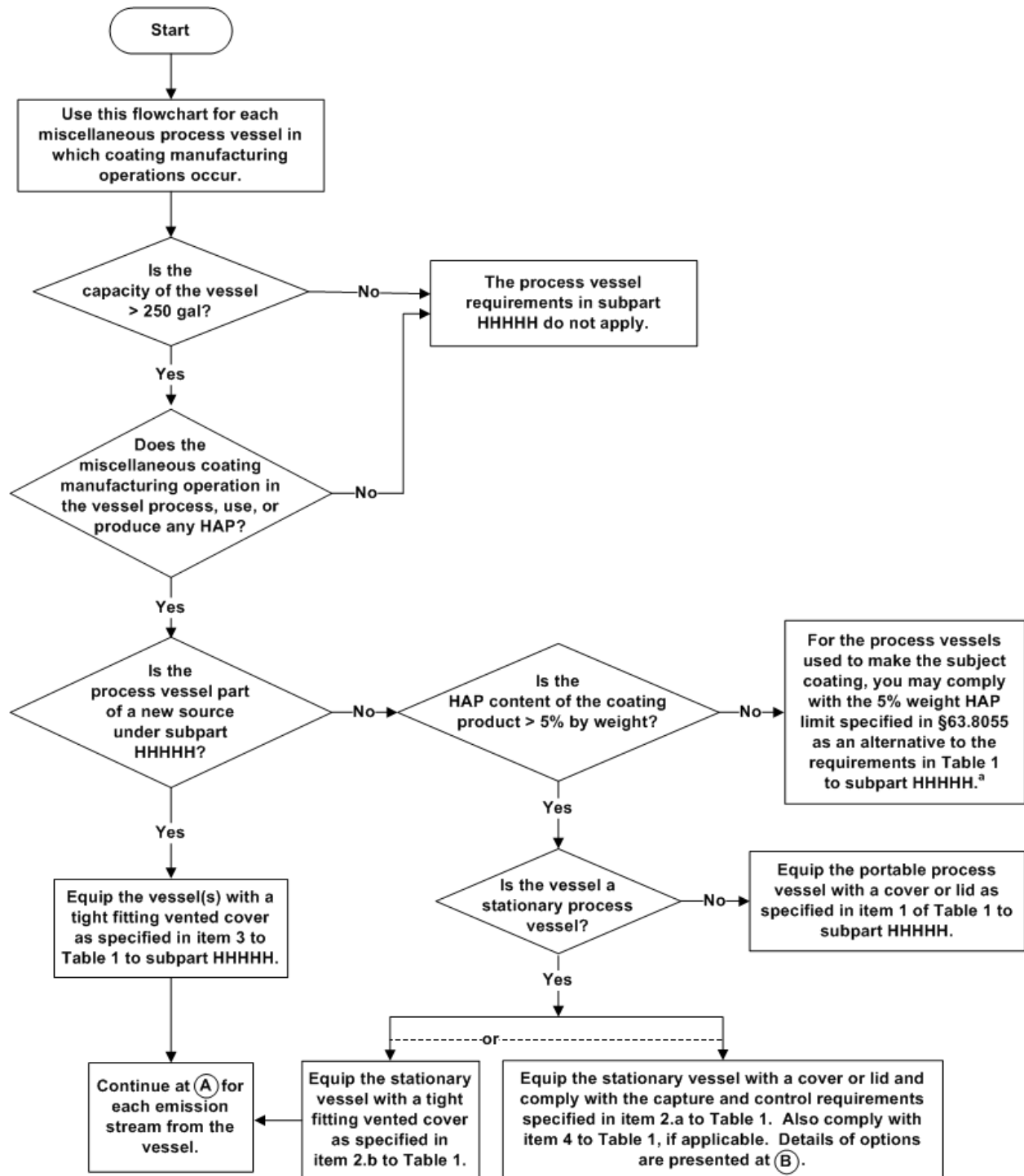


---

## **Section 2**

### **Requirements for Process Vessels**

*[This page intentionally left blank.]*



ª The HAP percentage may be determined by test methods as specified in §63.8055(b)(1) through (3). Alternatively, as specified in §63.8055(b)(4), formulation data from raw material suppliers may be used to determine the HAP percent if the formulation data identify each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens (see 29 CFR 1910.1200(d)(4)), and at 1.0 percent by mass or more for other compounds.

Figure 2-1. Flowchart of applicability and control requirements for process vessels.

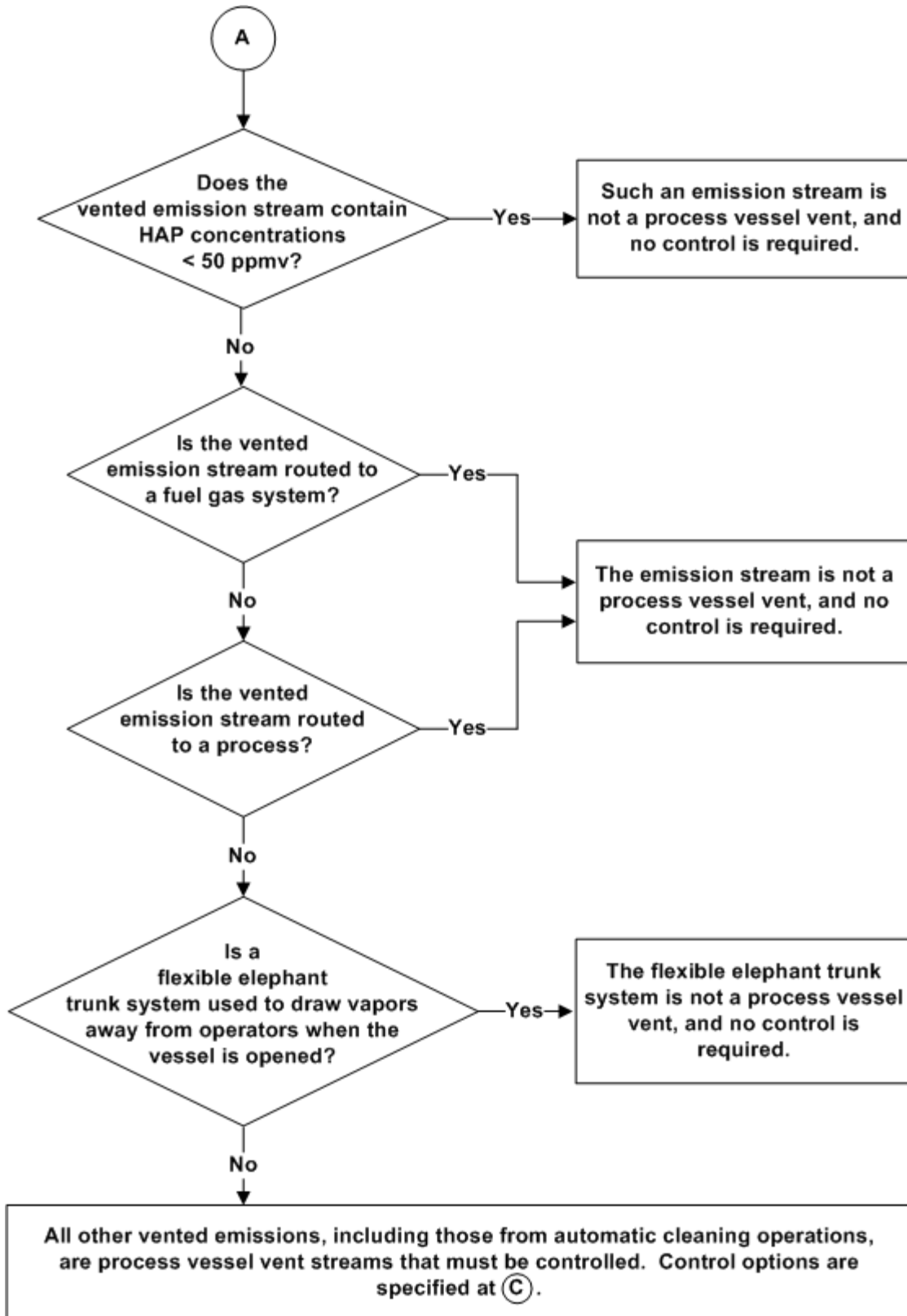


Figure 2-1. (continued)

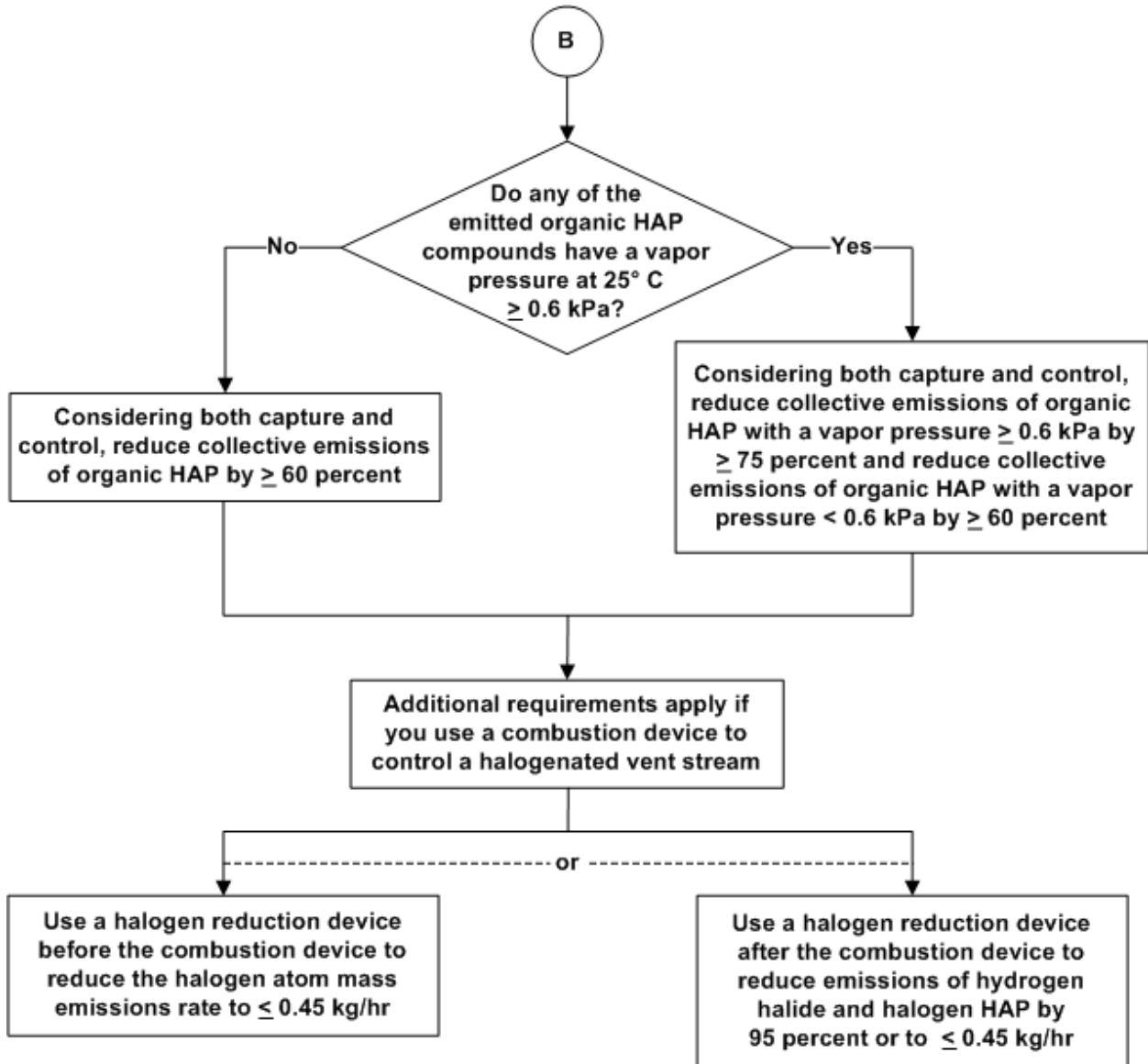


Figure 2-1. (continued)

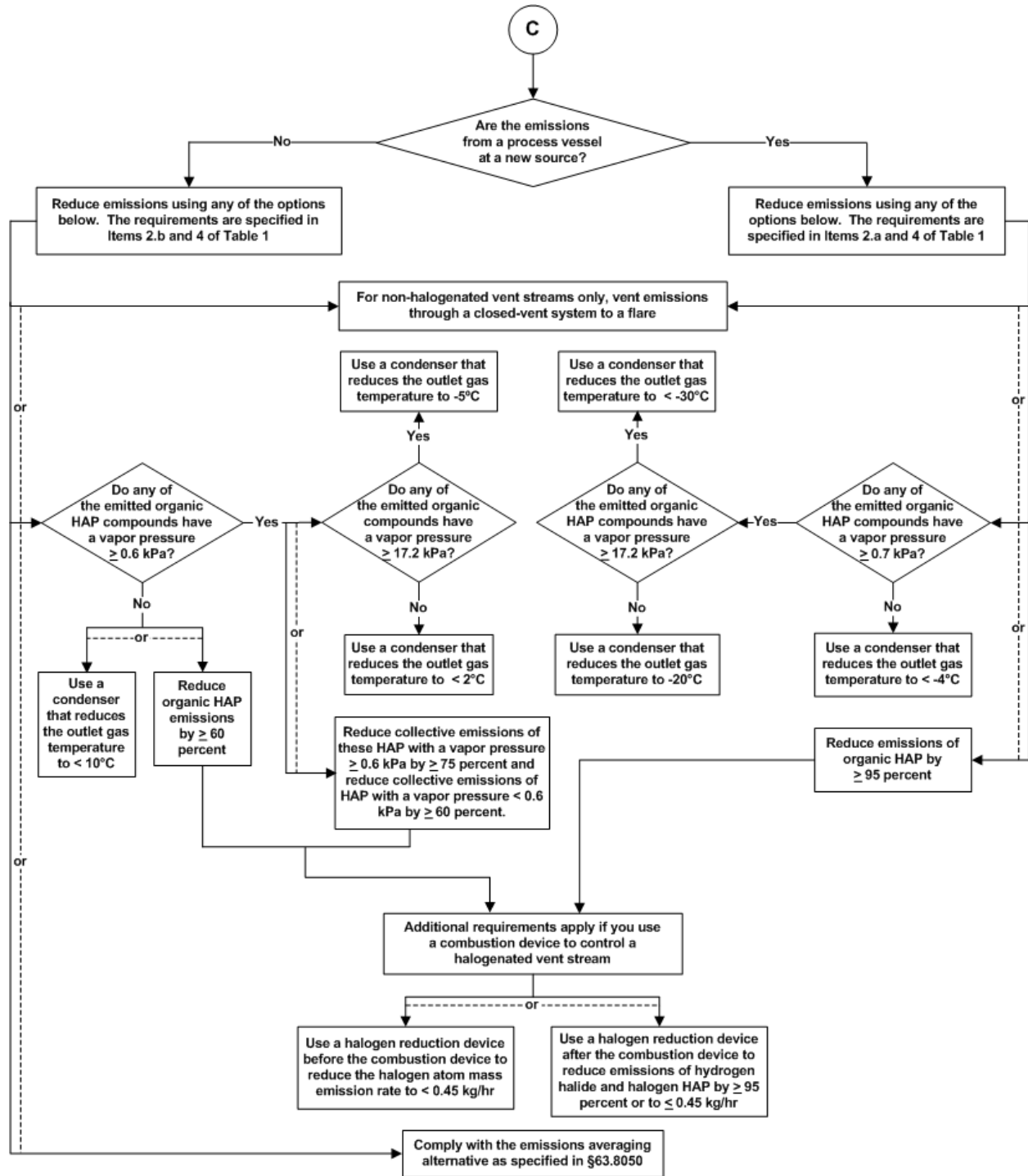


Figure 2-1. (continued)





*[This page intentionally left blank.]*

## **Section 3**

### **Requirements for Storage Tanks**

*[This page intentionally left blank.]*

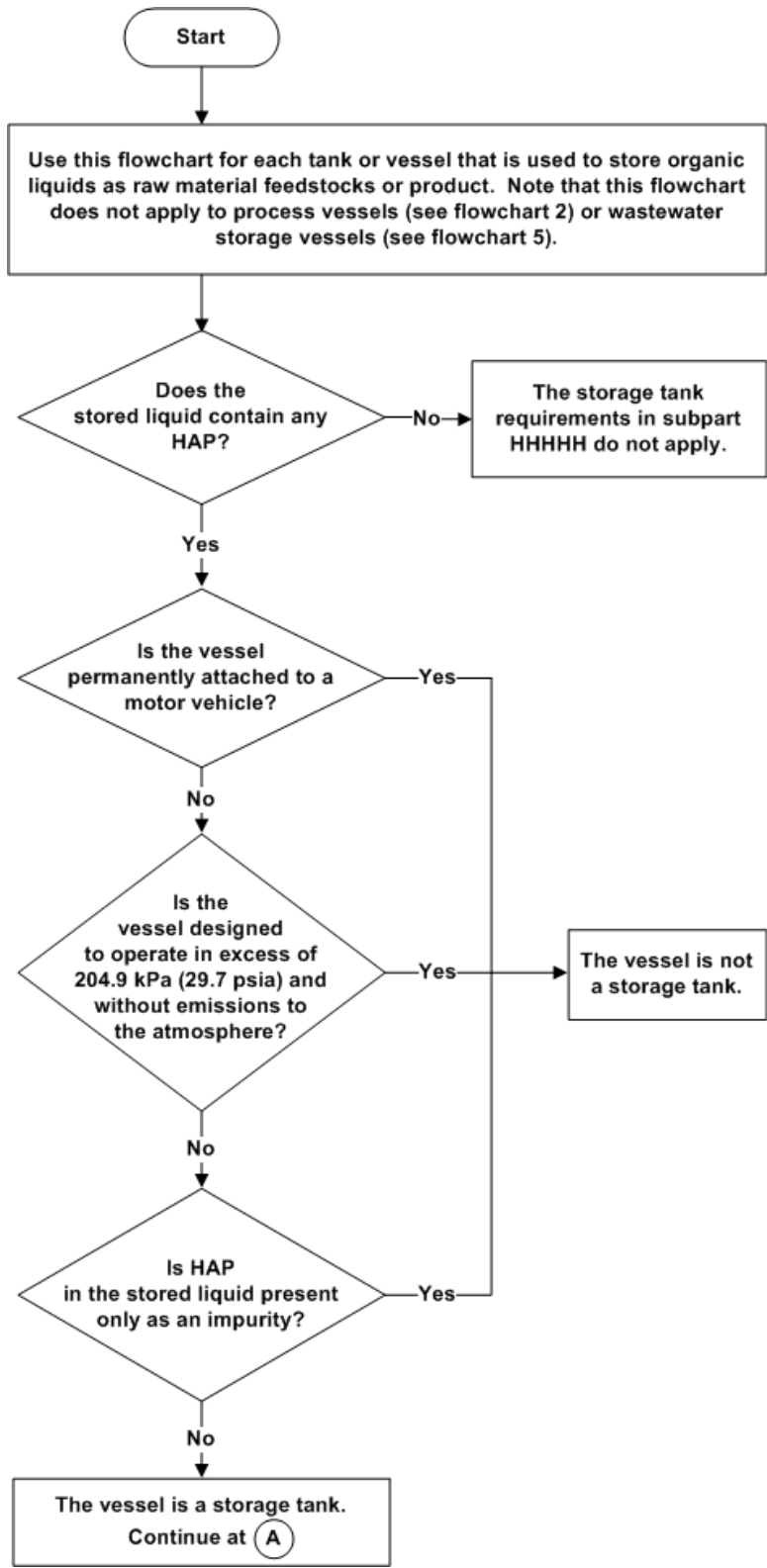


Figure 3-1. Flowchart of applicability and control requirements for storage tanks.

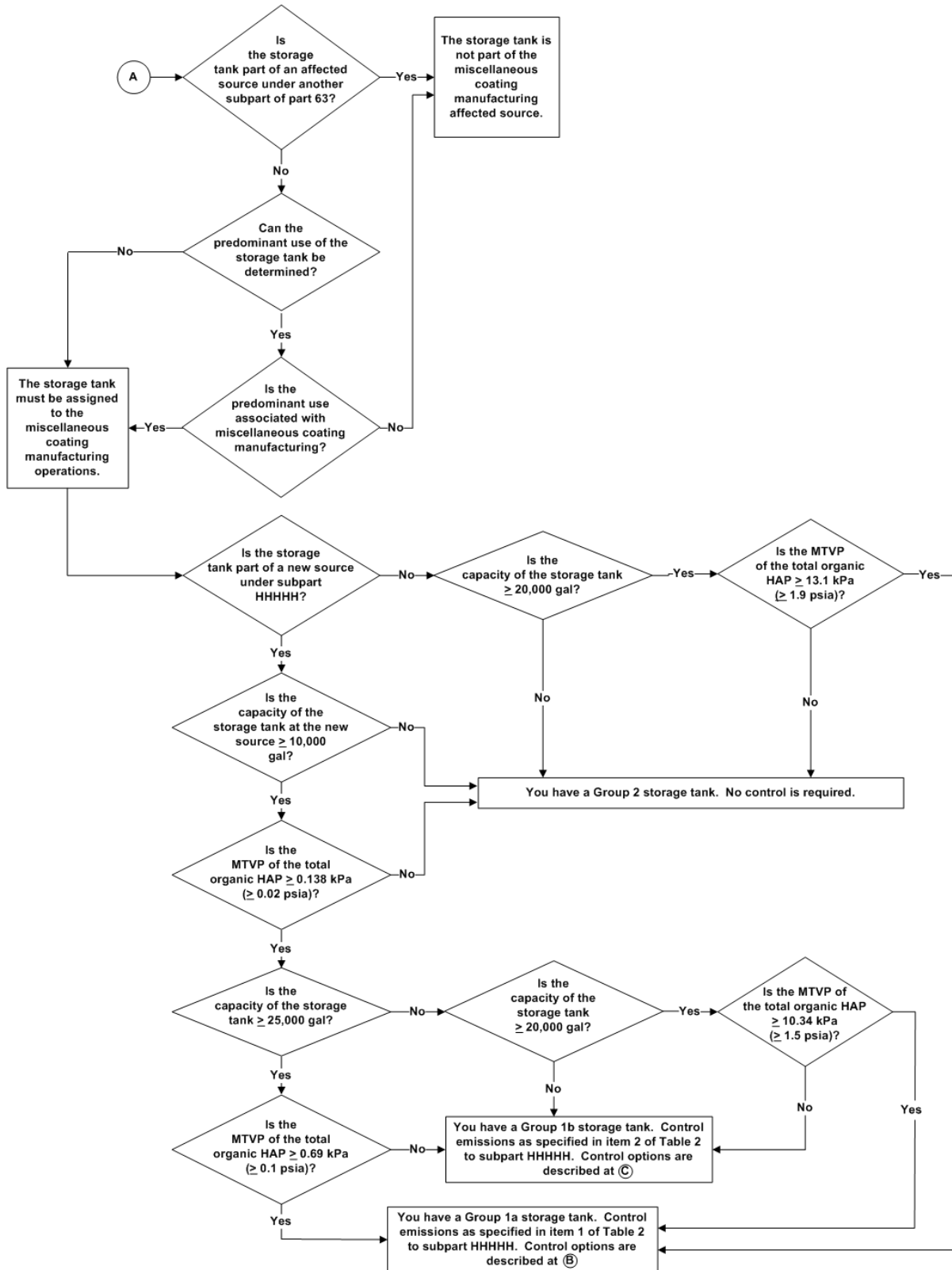


Figure 3-1. (continued)

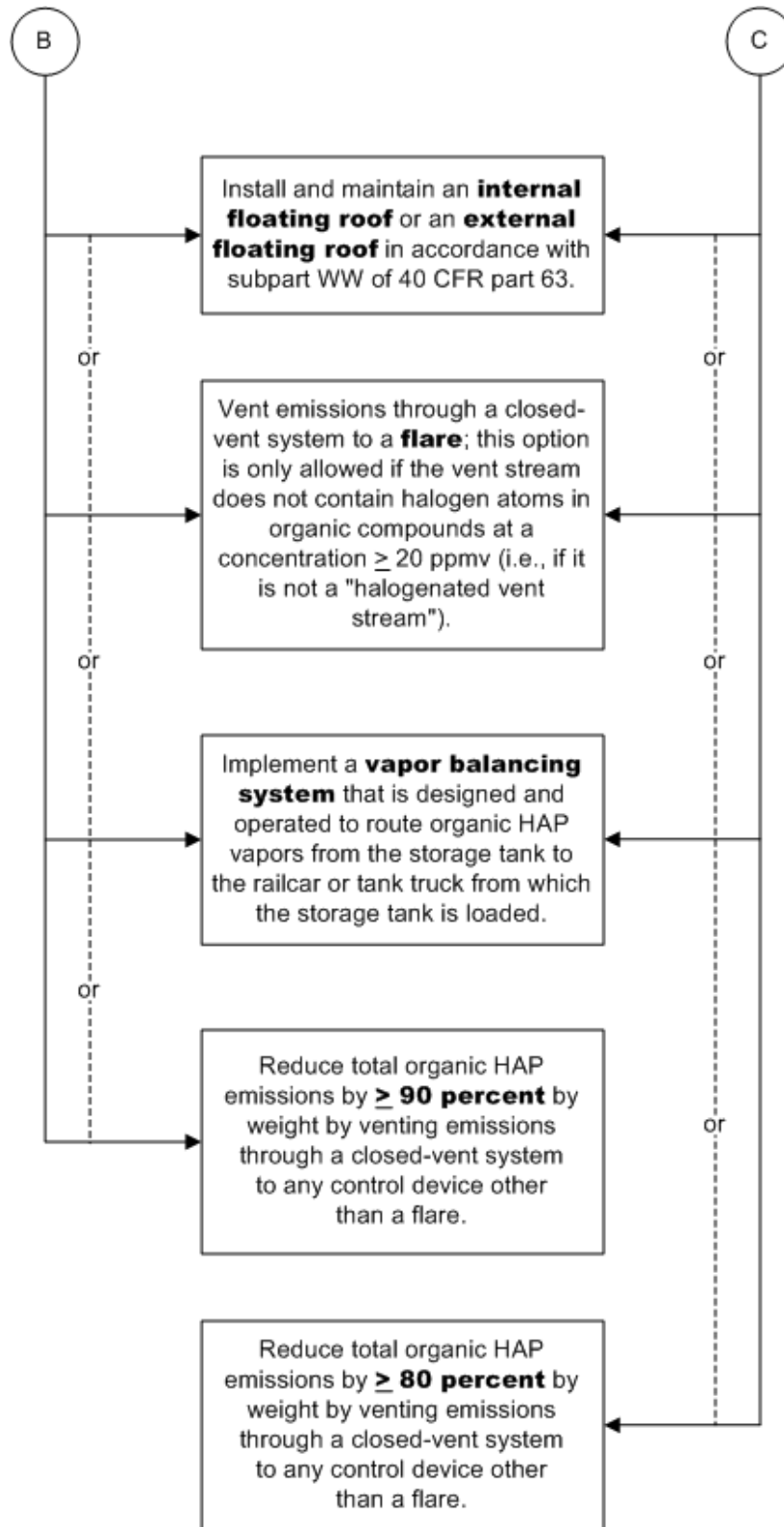


Figure 3-1. (continued)

**Table 3-1. Compliance Checklist for Storage Tanks 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” box.

Identification of Storage Tank(s): \_\_\_\_\_

---

**I. Review of Records**


---

- |   |  |
|---|--|
| 1. Are all records kept for at least 5 years? §63.1065 and 63.10(b)(1)  | <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? <sup>a</sup> §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 <b>both</b> 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 <b>all</b> 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 <b>all</b> 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 |
| 8. Whenever a floating roof was set on its legs or other supports, was <b>all</b> of the following information recorded: §63.1065(c)  |  |
| • The date when the floating roof was set on it legs or other supports?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| • The date when the floating roof was refloated?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| • An indication of whether the process of refloating was continuous?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
-



Table 3-1. (continued)

## I. Review of Records

- 
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 3-1. (continued)

---

**II. Visual Inspection**


---

Note: The inspector should not perform the inspection while on the EFR if the roof is below 4 feet of the top of the tank and if the inspector is not equipped with the proper respiratory protection. 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 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? <sup>b</sup> §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. <sup>b</sup> |  |  |  |
|---|--|--|--|

- |   |   |     |   |
|---|---|-----|---|
| • Is the accumulated area of gaps between the tank wall and the secondary seal no greater than 21.2 cm <sup>2</sup> 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? <sup>b</sup> §63.1063(a)(1)(ii) and see definitions of “mechanical shoe seal” and “liquid-mounted seal” in §63.1061 | Y | N/A | N |
| • Is the primary seal free of holes and tears? §63.1063(d)(1)(ii)  | Y | N/A | N |
| • Is the primary seal continuously attached around the circumference of the EFR?   | Y | N/A | N |
| • 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)?  | Y | N/A | N |
| – Does the upper end of the mechanical/metallic shoe seal extend a minimum vertical distance of 61 cm above the stored liquid surface?   | Y | N/A | N |
-

Table 3-1. (continued)

<b>II. Visual Inspection</b>				
–	Does a flexible coated fabric span the space between the metal shoe and the tank wall?	Y	N/A	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?	Y	N/A	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 <sup>2</sup> per meter of tank diameter?		Y	N
•	Is the maximum gap width between the tank wall and the seal no more than 3.81 cm?		Y	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? <sup>c</sup> §63.1063(a)(2)(i)	Y	N/A	N
•	Except for automatic bleeder vents, rim space vents, deck drains, and leg sleeves, does each opening in the roof have a gasketed cover? <sup>c</sup> §63.1063(a)(2)(ii)	Y	N/A	N
•	Is each gasketed cover, seal, or lid on any opening in the EFR closed, except when it must be open for access? <sup>c</sup> §63.1063(b)(3)	Y	N/A	N
•	Is the cover on each access hatch and gauge float well designed to be bolted or fastened when closed? <sup>c</sup> §63.1063(a)(2)(vi)	Y	N/A	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)	Y	N/A	N
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)		Y	N
•	Does each automatic bleeder vent have a gasketed lid, pallet, flapper, or other closure device? <sup>c</sup> §63.1063(a)(2)(iii)	Y	N/A	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)		Y	N
•	Does each rim space vent have a gasketed lid, pallet, flapper, or other closure device? <sup>c</sup> §63.1063(a)(2)(iii)	Y	N/A	N



**Table 3-2. Compliance Checklist for Storage Tanks 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.

Identification of Storage Tank(s): \_\_\_\_\_

---

### I. Review of Records

---

1. Are all records kept for at least 5 years? §63.1065 and 63.10(b)(1)  Y  N
2. Do records show that visual inspections are conducted on either of the following schedules: §63.1063(c)(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

---

**Table 3-2. (continued)****I. Review of Records**

- 
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 it legs or other supports?  Y  N/A  N
- (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)  Y  N/A  N
- 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).

---

Table 3-2. (continued)

---

**II. Visual Inspection**


---

- |   |  |
|---|--|
| 1. Does the IFR float on the surface of the stored liquid? §63.1063(b)(1) and (2)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <i>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.</i>                 |  |
| 2. Is the floating roof deck free of pools of standing liquid? §63.1063(d)(1)(i)  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| 3. Inspect the rim seal(s).   |  |
| (a) Does the IFR have any one of the following closure devices: <sup>a</sup><br>§63.1063(a)(1)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| – 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?  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (c) If the IFR has a secondary seal, is it continuously attached around the circumference of the IFR?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) Are there no visible gaps between the seal(s) and the wall of the storage tank?   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (e) Is the primary seal free of holes and tears? §63.1063(d)(1)(ii)   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (f) If the IFR has a secondary seal, is it free of holes and tears?<br>§63.1063(d)(1)(ii)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> 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)?  | <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 |
| (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?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> 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? <sup>b</sup> §63.1063(a)(2)(i) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
-

Table 3-2. (continued)

<b>II. Visual Inspection</b>			
(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? <sup>b</sup> §63.1063(a)(2)(ii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(c) Is each gasketed cover, seal, or lid on any opening in the IFR closed, except when it must be open for access? <sup>b</sup> §63.1063(b)(3)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(d) Does each opening for a fixed roof support column have either a flexible fabric sleeve seal or a gasketed cover? <sup>b</sup> §63.1063(a)(2)(iv)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(e) Is the cover on each access hatch and gauge float well designed to be bolted or fastened when closed? <sup>b</sup> §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? <sup>b</sup> §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? <sup>b</sup> §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? <sup>b</sup> §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? <sup>b</sup> §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? <sup>b</sup> §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? <sup>b</sup> §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? <sup>b</sup> §63.1063(a)(2)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N





**Table 3-3. Compliance Checklist for 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 Tables 7-1 and 7-2 for the closed vent system and the applicable checklist from Tables 7-3 through 7-12 for the type of control device that is used to reduce emissions from the storage tank.

Identification of Storage Tank(s): \_\_\_\_\_

---

**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: §63.8010(c)
    - (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 3-4. 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 or railcar that delivered material to the storage tank. 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.

Identification of Storage Tank(s): \_\_\_\_\_

---

**I. Review of Records**


---

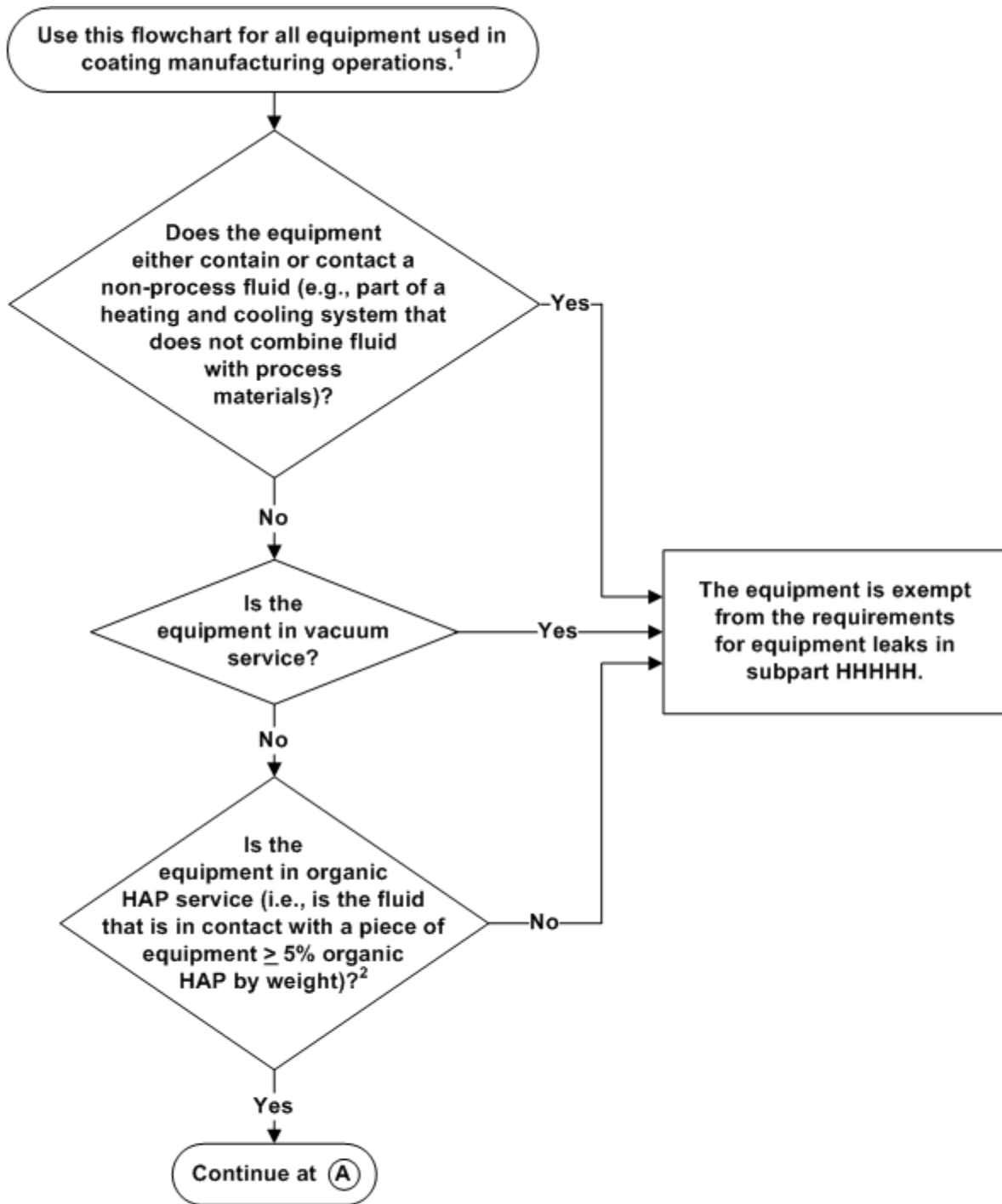
- |   |  |
|---|--|
| 1. Does the facility have records that the tank trucks and/or railcars from which the storage tank is filled meet U.S. DOT pressure requirements in 49 CFR part 180 or 173.31, respectively? §63.1253(f)(2) as referenced from §63.8010(d)  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| 2. Does the facility have a record of the pressure relief vent setting? §63.1253(f)(5) as referenced from §63.8010(d)   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| 3. If the setting in “2” 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? §63.8010(d)(2)  | <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 and railcars 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? §63.1253(f)(7)(i) as referenced from §63.8010(d) | <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: §63.1253(f)(5)(iii) and 63.1255(g)(4) as referenced from §63.8010(d)  |  |
| (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? §63.10(b)(1)  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
-



## **Section 4**

### **Requirements for Equipment Leaks**

*[This page intentionally left blank.]*



<sup>1</sup> Equipment consists of pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended lines, valves, connectors, and instrumentation systems.

<sup>2</sup> Equipment is presumed to be in organic HAP service unless you demonstrate that it is not by following the procedures in §63.180(d).

Figure 4-1. Flowchart of applicability and control requirements for equipment leaks.

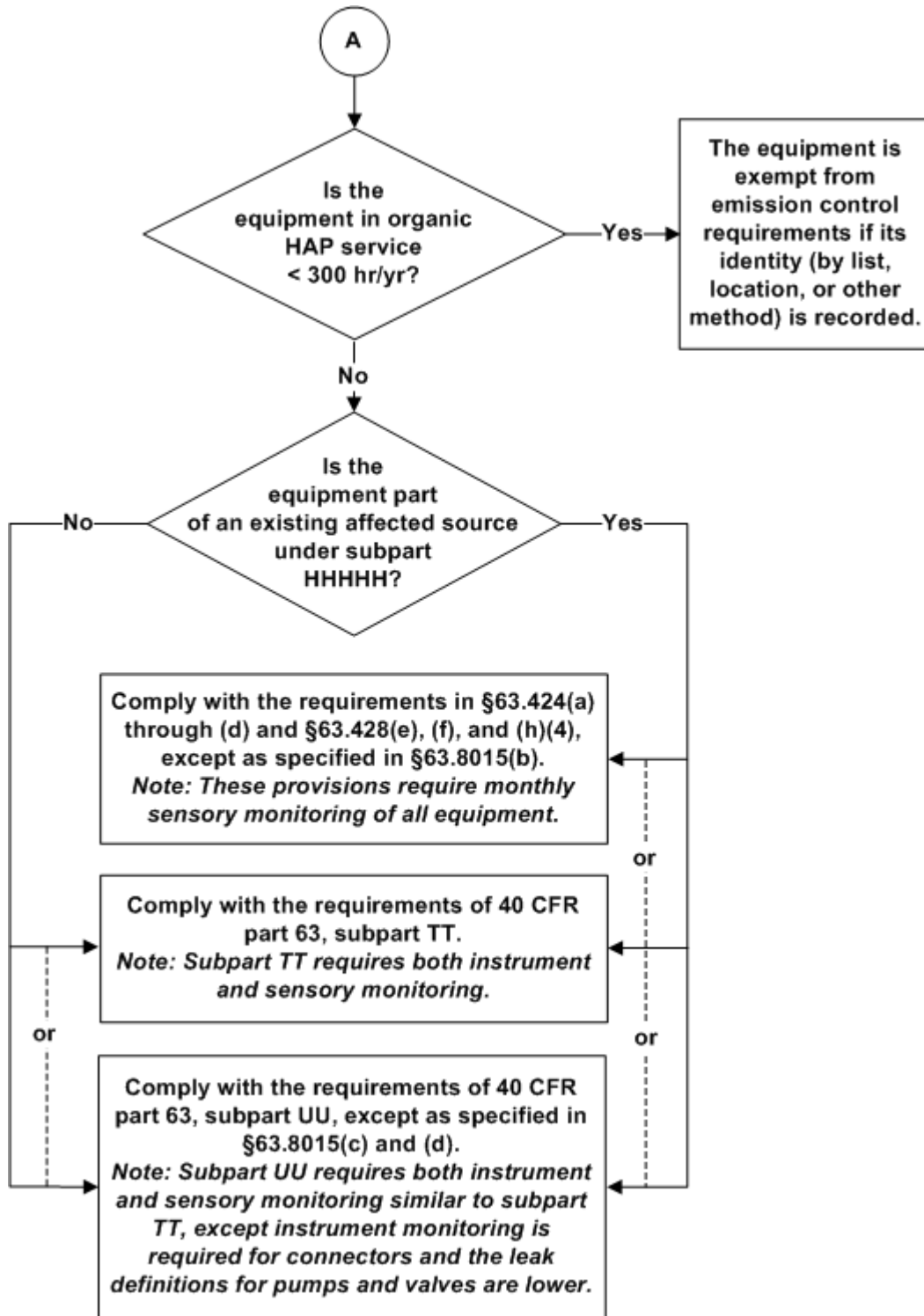


Figure 4-1. (continued)



**Table 4-1. Compliance Checklist for Equipment Leaks Monitored by Monthly Sensory Observations**

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 a log book that contains a list, summary description, or diagram showing the location of all equipment in organic HAP service? §63.424(b)    | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| 2. Do records indicate that all equipment in organic HAP service is inspected monthly? §63.424(a) as referenced from Table 3 to subpart HHHHH                          | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| <i>Note: Inspections are not required for equipment in service &lt; 300 hr/yr in vacuum service, or contacting nonprocess fluids. §63.8015(b)(4).</i>                  |  |
| 3. Is all of the following information recorded in the log book for each liquid or vapor leak that is detected? §63.428(e) as referenced from Table 3 to subpart HHHHH |  |
| (a) Equipment type and identification number?  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (b) Indication of whether the leak is liquid or vapor?   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (c) Detection method (i.e., sight, sound, or smell)?   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (d) Date leak was detected?  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (e) Date of each attempt to repair the leak?   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (f) Repair methods applied in each repair attempt?   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| (g) All of the following information if the leak was not repaired within 15 calendar days after it was detected:   |  |
| • Reason for the delay?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| • Expected date of successful repair?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (h) Date of successful repair?   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| 4. Are all records kept for at least 5 years?  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |

**II. Note All Deficiencies**

---



---



---



---

**Table 4-1. (continued)**

---

**I. Review of Records**

---

---

---

---

---

---

---

---

---

**Table 4-2. Compliance Checklist for the LDAR Program in Subpart TT for Equipment Leaks**

Note: Use this checklist to demonstrate compliance with the basic LDAR program requirements for each type of equipment as specified in 40 CFR part 63, subpart TT. See the checklist in Table 4-5 for enclosed process units with equipment leak emissions routed through a closed-vent system to a control device in accordance with §63.1016. 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 the following equipment identification records as an alternative to physically tagging each piece of equipment:
    - (a) General identification of equipment that is subject to subpart HHHHH (e.g., on a plant site plan, in log entries, designation of process unit or affected source boundaries, etc.)? §§63.1003(a) and 63.1017(b)(1)  Y  N/A  N
    - (b) Specific identification of connectors (either individually or the total number of connectors as a group in a designated area)? §§63.1003(b)(1) and 63.1017(b)(1)  Y  N/A  N  
*Note: Inaccessible, ceramic, or ceramic-lined connectors are exempt from this recordkeeping requirement.*
    - (c) Specific identification of pumps in light liquid service, agitators, pressure relief devices in gas and vapor service, and compressors from which leaks are routed to a process, a fuel gas system, or through a closed-vent system to a control device? §§63.1003(b)(2) and 63.1017(b)(1)  Y  N/A  N  
*Note: Questions 13 and 14 are the only other questions in this checklist (Table 4-2) that apply to this equipment if emissions are routed to a control device. Only question 14 applies if emissions are routed to a process or fuel gas system.*
    - (d) Specific identification of pressure relief devices that are equipped with rupture disks? §§63.1003(b)(3) and 63.1017(b)(1)  Y  N/A  N
    - (e) Specific identification of instrumentation systems? §§63.1003(b)(4) and 63.1017(b)(1)  Y  N/A  N
    - (f) Specific identification (either by list, location, or other method) of equipment in organic HAP service less than 300 hours per calendar year within the affected source? §§63.1003(b)(5) and 63.1017(b)(1)  Y  N/A  N
    - (g) Identification of equipment designated as unsafe-to-monitor or difficult-to-monitor? §63.1003(c)(3)  Y  N/A  N
-

Table 4-2. (continued)

**I. Review of Records**

2. If the facility has designated any valves, pumps, connectors, and/or agitators as unsafe to monitor, do they have a written plan describing the actual monitoring frequency that will be used (but not more frequently than would otherwise be required) and stating that any such equipment that is found to be leaking will be repaired following the same procedures as for any other leaking equipment? §§63.1003(c)(5)(i) and 63.1017(b)(2)  Y  N/A  N

*Note: No other records described in this checklist (i.e., Table 4-2) apply to equipment that is designated as unsafe to monitor.*

3. If the facility has designated any valves and/or agitators as difficult to monitor, do they have a written plan describing the actual monitoring frequency that will be used (at least once per year) and stating that any such equipment that is found to be leaking will be repaired following the same procedures as for any other leaking equipment? §§63.1003(c)(5)(ii) and 63.1017(b)(2)  Y  N/A  N

*Note: No other records described in this checklist (i.e., Table 4-2) apply to equipment that is designated as difficult to monitor.*

4. If the facility has designated any connectors as unsafe to repair, do records identify such connectors and explain why the connectors are unsafe to repair? §§63.1003(d)(2) and 63.1017(b)(3)  Y  N/A  N

5. If the facility has designated any compressors as operating with an instrument reading of less than 500 ppm above background, do records identify such compressors? §§63.1003(e)(3) and 63.1017(b)(4)  Y  N/A  N

6. If the facility has designated any valves as operating with no detectable emissions (i.e., they have no external actuating mechanism and operate with emissions less than 500 ppm above background), do they have all of the following records: §§63.1006(e)(4)(i) and 63.1017(c)(1)  Y  N/A  N

(a) All of the following compliance tests:

- Initial compliance test (upon designation emissions are <500 ppm above background)?  Y  N/A  N
- Annual compliance tests?  Y  N/A  N
- Any other tests requested by the Administrator?  Y  N/A  N

(b) All of the following information for each compliance test:

- Records of the test dates?  Y  N/A  N
- The background level measured during each test?  Y  N/A  N
- Maximum instrument reading measured during each test?  Y  N/A  N

Table 4-2. (continued)

**I. Review of Records**

7. When leaks are detected by instrument monitoring (for valves, pumps, connectors, agitators, pressure relief devices, and compressors) or by sensory monitoring (for pumps and agitators), does the facility maintain all of the following records: §§63.1004(e)(2), 63.1005(e), and 63.1017(b)(5) and (6)

*Note: Although the rule does not explicitly require identification of leaking equipment, the records must be sufficiently specific to allow an inspector to determine compliance with the equipment leak repair requirements.*

- |   |                            |                              |                            |
|---|----------------------------|------------------------------|----------------------------|
| (a) The date of the first attempt to repair the leak?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (b) The date of successful repair of the leak?  | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (c) The maximum instrument reading measured by Method 21 at the time the leak was repaired or determined to be nonreparable | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (d) The reason for the delay if the leak was not repaired within 15 calendar days after the leak was detected?              | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |

*Note: Section 63.1005(c) specifies conditions under which delay of repair is allowed.*

*Note: If delay of repair was caused by depletion of stocked parts, the records must also document that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.*

- |  |                            |                              |                            |
|--|----------------------------|------------------------------|----------------------------|
| (e) The dates of process unit (or affected source) shutdowns that occurred while the equipment was unrepaired? | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|--|----------------------------|------------------------------|----------------------------|
8. If complying with the skip period alternative for valves in gas and vapor service or in light liquid service, does the facility keep records of both of the following: §§63.1006(b)(6)(iv) and 63.1017(c)(1)

- |  |                            |                              |                            |
|--|----------------------------|------------------------------|----------------------------|
| (a) The monitoring schedule?                                       | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (b) Percent of valves found leaking during each monitoring period? | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |

9. For pumps in light liquid service, does the facility keep all of the following records:

- |  |                            |                              |                            |
|--|----------------------------|------------------------------|----------------------------|
| (a) The occurrence and dates of weekly visual inspections for leaks? §§63.1007(b)(3) and (e)(1)(v) and 63.1017(c)(2)(i) and (ii) | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|--|----------------------------|------------------------------|----------------------------|

*Note: These inspections are not required for pumps with no external shaft. §63.1007(e)(2)*

Table 4-2. (continued)

## I. Review of Records

(b) All of the following records for pumps equipped with a dual mechanical seal system that includes a barrier fluid system: §§63.1007(e)(1)(i) and 63.1017(c)(2)(iii)			
• The design criteria related to the presence and frequency of drips that indicates failure of the seal system, the barrier fluid system, or both?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• An explanation of the design criteria; any changes to these design criteria; and the reasons for any changes?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
10. For agitators in gas and vapor service or in light liquid service, does the facility maintain all of the following records:			
(a) The occurrence and dates of weekly visual inspections for leaks? §§63.1009(b)(3) and 63.1017(c)(4)(i)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
<i>Note: According to §63.1009(e)(2), these inspections are not required for agitators with no external shaft.</i>			
<i>Note: Although §63.1009(e)(1)(iv) does not explicitly require records documenting the inspection for agitators with dual mechanical seals, a record would be required in order to demonstrate compliance (similar to the requirement in §63.1007(e)(1)(v)).</i>			
(b) For each agitator equipped with a dual mechanical seal system that includes a barrier fluid system, the design criteria related to the presence and frequency of drips that indicates failure of the seal system, the barrier fluid system, or both; an explanation of the design criteria; any changes to the design criteria; and the reasons for any changes? §§63.1009(e)(1)(vi)(B) and 63.1017(c)(4)(ii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
11. For pressure relief devices in gas and vapor service, does the facility maintain records of the following information for monitoring within 5 days after a pressure release? §§63.1011 (c)(3) and 63.1017(c)(5)			
<i>Note: These requirements do not apply to pressure relief devices that are equipped with a rupture disk upstream of the pressure relief device.</i>			
(a) Date the monitoring was conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(b) Background level measured, if the instrument reading was adjusted for background?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(c) Maximum instrument reading measured?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N

Table 4-2. (continued)

---

**I. Review of Records**


---

12. For each compressor that is equipped with a seal system that includes a barrier fluid system, does the facility maintain records of either of the following:
- (a) the design criteria related to the presence and frequency of drips that indicates failure of the seal system, the barrier fluid system, or both; an explanation of the design criteria; any changes to the design criteria; and the reasons for any changes, or §§63.1012(d)(2) and 63.1017(c)(6)(i)  Y  N/A  N
- (b) If the facility complies with the alternative compressor standard (i.e., the compressor is designated as operating with an instrument reading of less than 500 parts per million above background), all of the following information for each compliance test: §§63.1012(f)(2) and 63.1017(c)(6)(ii)
- Date of each compliance test?  Y  N/A  N
  - Background level measured?  Y  N/A  N
  - Maximum instrument reading?  Y  N/A  N
13. If emissions from pumps, agitators, pressure relief devices, or compressors are routed through a closed-vent system to a control device, are records maintained of all of the following information: §63.998(d)(4) as referenced from §§63.1015(b), 63.982(b) and (c)(3), and 63.986(c)
- (a) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams?  Y  N/A  N
- (b) The dates and descriptions of any changes in the design specifications?  Y  N/A  N
- (c) A description of the parameter or parameters monitored to ensure that the control device is operated and maintained as designed, and a description of why each parameter was selected for monitoring?  Y  N/A  N
- (d) Dates and durations when the monitored parameter values indicate the closed-vent system and control device(s) were not being operated as designed?  Y  N/A  N
- (e) Dates and durations when the monitoring device was inoperative?  Y  N/A  N
- (f) Dates and durations of startup and shutdown of the control device?  Y  N/A  N
14. Are all records kept for at least 5 years? §63.10(b)(1)  Y  N
-

**Table 4-2. (continued)**

**II. Visual Inspections**

- |   |  |
|---|--|
| 1. Are visible, weatherproof identifications attached to all equipment that has been determined to be leaking and has not yet been repaired, including equipment determined to be nonrepairable? §63.1004(e)(1)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 2. Are visible, weatherproof identifications attached to all valves that were repaired less than 3 months ago? §63.1005(c)(1)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 3. Is a rupture disk in place upstream of each pressure relief device for which the facility claims exemption from the otherwise required monitoring? §63.1011(e)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 4. Are sampling connection systems equipped with a closed-purge, closed-loop, or closed-vent system? §63.1013(b)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| Note: In-situ sampling systems are exempt from this requirement. §63.1013(d)  |  |
| 5. Are open-ended valves and lines equipped with caps, blind flanges, plugs, or a second valve? §63.1014(b)(1)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| Note: Open-ended valves and lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from this requirement. Open-ended lines and valves containing materials that would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard are also exempt. |  |
| 6. If the facility indicates equipment is vented to a control device, is a closed-vent system in place?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |

**III. Note All Deficiencies**

---



---



---



---



---



---



---



---



---



---



---



**Table 4-3. Compliance Checklist for the LDAR Program in Subpart UU for Equipment Leaks**

Note: Use this checklist to demonstrate compliance with the basic LDAR program requirements for each type of equipment as specified in 40 CFR part 63, subpart UU. See checklists in Tables 4-4 and 4-5 for equipment that is pressure tested in accordance with §63.1036(b) or process units are enclosed with emissions routed to a control device in accordance with §63.1037, respectively. 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 the following equipment identification records as an alternative to physically tagging each piece of equipment:
    - (a) General identification of equipment that is subject to subpart HHHHH (e.g., on a plant site plan, in log entries, designation of process unit or affected source boundaries, etc.)? §§63.1022(a) and 63.1038(b)(1)  Y  N/A  N
    - (b) Specific identification of connectors (either individually or the total number of connectors as a group in a designated area)? §§63.1022(b)(1) and 63.1038(b)(1)  Y  N/A  N  
*Note: Inaccessible, ceramic, or ceramic-lined connectors are exempt from this recordkeeping requirement.*
    - (c) Specific identification of pumps in light liquid service, agitators, pressure relief devices in gas and vapor service, and compressors from which leaks are routed to a process, a fuel gas system, or through a closed-vent system to a control device? §§63.1022(b)(2) and 63.1038(b)(1)  Y  N/A  N  
*Note: Questions 15 and 17 are the only other questions in this checklist (i.e., Table 4-3) that apply to this equipment if emissions are routed through a closed-vent system to a control device. Only question 17 applies if emissions are routed to a process or fuel gas system.*
    - (d) Specific identification of pressure relief devices that are equipped with rupture disks? §§63.1022(b)(3) and 63.1038(b)(1)  Y  N/A  N
    - (e) Specific identification of instrumentation systems? §§63.1022(b)(4) and 63.1038(b)(1)  Y  N/A  N
    - (f) Specific identification (either by list, location, or other method) of equipment in organic HAP service less than 300 hours per calendar year within the affected source? §§63.1022(b)(5) and 63.1038(b)(1)  Y  N/A  N
    - (g) Identification of equipment designated as unsafe-to-monitor or difficult-to-monitor? §63.1022(c)(3)  Y  N/A  N
-

Table 4-3. (continued)

**I. Review of Records**

2. If the facility has designated any valves, pumps, connectors, and/or agitators as unsafe to monitor, do they have a written plan describing the actual monitoring frequency that will be used (but not more frequently than would otherwise be required) and stating that any such equipment that is found to be leaking will be repaired following the same procedures as for any other leaking equipment? §§63.1022(c)(4)(i) and 63.1038(b)(2)  Y  N/A  N

*Note: No other records described in this checklist (i.e., Table 4-3) apply to equipment that is designated as unsafe to monitor.*

3. If the facility has designated any valves and/or agitators as difficult to monitor, do they have a written plan describing the actual monitoring frequency that will be used (at least once per year) and stating that any such equipment that is found to be leaking will be repaired following the same procedures as for any other leaking equipment? §§63.1022(c)(4)(ii) and 63.1038(b)(2)  Y  N/A  N

*Note: No other records described in this checklist (i.e., Table 4-3) apply to equipment that is designated as difficult to monitor.*

4. If the facility has designated any connectors as unsafe to repair, do records identify such connectors and explain why the connectors are unsafe to repair? §§63.1022(d)(2) and 63.1038(b)(3)  Y  N/A  N

5. If the facility has designated any compressors as operating with an instrument reading of less than 500 ppm above background, do records identify such compressors? §§63.1022(e) and 63.1038(b)(4)  Y  N/A  N

6. If the facility has determined that any equipment is in heavy liquid service, do they have records of the information, data, and analyses used to make such determinations? §§63.1022(f)(1) and 63.1038(b)(5)  Y  N/A  N

7. When leaks are detected by instrument monitoring (for valves, pumps, connectors, agitators, pressure relief devices, and compressors) or by sensory monitoring (for pumps and agitators), does the facility maintain all of the following records: §§63.1023(e)(2), 63.1024(f), and 63.1038(b)(6) and (7)

*Note: Although the rule does not explicitly require identification of leaking equipment, the records must be sufficiently specific to allow an inspector to determine compliance with the equipment leak repair requirements.*

- (a) The date of the first attempt to repair the leak?  Y  N/A  N
- (b) The date of successful repair of the leak?  Y  N/A  N
- (c) The maximum instrument reading measured by Method 21 at the time the leak was repaired or determined to be nonreparable  Y  N/A  N

Table 4-3. (continued)

**I. Review of Records**

- (d) The reason for the delay if the leak was not repaired within 15 calendar days after the leak was detected?  Y  N/A  N
- Note: Section 63.1024(d) specifies conditions under which delay of repair is allowed.*
- Note: If delay of repair was caused by depletion of stocked parts, the records must also document that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.*
- (e) The dates of process unit (or affected source) shutdowns that occurred while the equipment was unrepaired?  Y  N/A  N
8. For valves in gas and vapor service or in light liquid service, does the facility keep records of both of the following, as applicable:
- (a) The monitoring schedule? §§63.1025(b)(3)(vi) and 63.1038(c)(1)(i)  Y  N/A  N
- (b) All of the following information for valve subgroups: §63.1025(b)(4)(iv) and 63.1038(c)(1)(ii)
- Note: Subgroups for a process unit or affected source are allowed only if less than 2 percent of the total number of valves in all subgroups are determined to be leaking.*
- Which valves are assigned to each subgroup?  Y  N/A  N
  - Monitoring results and calculations made for each subgroup in each monitoring period (i.e., the total number of valves monitored, the number found leaking, the number of nonrepairable valves, the percent leaking in the subgroup, and the percent leaking for determining the subsequent monitoring frequency for the subgroup as specified in §63.1025(c)(1)(ii) and (2))?  Y  N/A  N
  - Which, if any, valves have been reassigned from one subgroup to another, the last monitoring result prior to a reassignment, and the date when the reassignment was made?  Y  N/A  N
  - The results of the semiannual overall performance calculations?  Y  N/A  N
9. For pumps in light liquid service, does the facility keep all of the following records:
- (a) The occurrence and dates of weekly visual inspections for leaks? §§63.1026(b)(4) and (e)(1)(v) and 63.1038(c)(2)(i) and (ii)  Y  N/A  N
- Note: These inspections are not required for pumps with no external shaft.*

Table 4-3. (continued)

**I. Review of Records**

(b) All of the following records for pumps equipped with a dual mechanical seal system that includes a barrier fluid system: §§63.1026(e)(1)(i) and 63.1038(c)(2)(iii)			
• The design criteria related to the presence and frequency of drips that indicates failure of the seal system, the barrier fluid system, or both?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• An explanation of the design criteria; any changes to these design criteria; and the reasons for any changes?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
10. For connectors in gas and vapor service or in light liquid service, does the facility maintain a record of the monitoring schedule (i.e., the start date and end date of each monitoring period)? §§63.1027(b)(3)(v) and 63.1038(c)(3)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
<i>Note: The monitoring and recordkeeping requirements do not apply to inaccessible, ceramic, or ceramic-lined connectors.</i>			
11. For agitators in gas and vapor service or in light liquid service, does the facility maintain all of the following records:			
(a) The occurrence and dates of weekly visual inspections for leaks? §§63.1028(c)(3) and 63.1038(c)(4)(i)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
<i>Note: According to §63.1028(e)(2), these inspections are not required for agitators with no external shaft.</i>			
<i>Note: Although §63.1028(e)(1)(iv) does not explicitly require records documenting the inspection for agitators with dual mechanical seals, a record would be required in order to demonstrate compliance (similar to the requirement in §63.1026(e)(1)(v)).</i>			
(b) For each agitator equipped with a dual mechanical seal system that includes a barrier fluid system, the design criteria related to the presence and frequency of drips that indicates failure of the seal system, the barrier fluid system, or both; an explanation of the design criteria; any changes to the design criteria; and the reasons for any changes? §§63.1028(e)(1)(vi)(B) and 63.1038(c)(4)(ii)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
12. For pressure relief devices in gas and vapor service, does the facility maintain records of the following information for monitoring within 5 days after a pressure release? §§63.1030 (c)(3) and 63.1038(c)(5)			
<i>Note: These requirements do not apply to pressure relief devices that are equipped with a rupture disk upstream of the pressure relief device.</i>			
(a) Date the monitoring was conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(b) Background level measured?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(c) Maximum instrument reading measured?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N

Table 4-3. (continued)

**I. Review of Records**

13. For each compressor that is equipped with a seal system that includes a barrier fluid system, does the facility maintain records of either of the following:
- (a) the design criteria related to the presence and frequency of drips that indicates failure of the seal system, the barrier fluid system, or both; an explanation of the design criteria; any changes to the design criteria; and the reasons for any changes, or §§63.1031(d)(2) and 63.1038(c)(6)(i)  Y  N/A  N
- (b) If the facility complies with the alternative compressor standard (i.e., the compressor is designated as operating with an instrument reading of less than 500 parts per million above background), all of the following information for each compliance test: §§63.1031(f)(2) and 63.1038(c)(6)(ii)
- Date of each compliance test?  Y  N/A  N
  - Background level measured?  Y  N/A  N
  - Maximum instrument reading?  Y  N/A  N
14. If the facility has implemented a quality improvement program for pumps, are all of the following records maintained:
- (a) All of the following data for each pump: §§63.1035(d)(2) and 63.1038(c)(7)(i)
- Pump type?  Y  N/A  N
  - Pump manufacturer?  Y  N/A  N
  - Seal type?  Y  N/A  N
  - Seal manufacturer?  Y  N/A  N
  - Pump design?  Y  N/A  N
  - Materials of construction?  Y  N/A  N
  - Barrier fluid or packing material, if applicable?  Y  N/A  N
  - Year installed?  Y  N/A  N
  - Service characteristics of the pumped stream?  Y  N/A  N
  - Maximum instrument readings observed in each monitoring observation before repair, response factor for the stream (if appropriate), instrument model number, and date of observation?  Y  N/A  N
  - If a leak was detected, the repair methods used and the instrument readings after repair?  Y  N/A  N

Table 4-3. (continued)

**I. Review of Records**

- 
- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units or affected sources, a description of any maintenance or quality assurance programs used in the process unit or affected source that are intended to improve emission performance?</li> </ul>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(b) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices? §§63.1035(e)(3)(i) and 63.1038(c)(7)(v)</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(c) All of the following information for each trial evaluation program: §§63.1035(d)(6)(i), (d)(6)(iii), (d)(6)(vi), (e)(3)(ii), and (e)(3)(iii); and 63.1038(c)(7)(ii) and (iii)</p> <p><i>Note: Section 63.1035(d)(6) describes the situations under which a trial evaluation program must be conducted.</i></p> <ul style="list-style-type: none"> <li>• A list of the candidate superior performing pump seal designs or technologies to be evaluated?</li> <li>• The reasons for rejecting any specific candidate superior emission performing pump technologies from performance trials?</li> <li>• The stages for evaluating the candidate pump designs or pump seal technologies?</li> <li>• The anticipated time period necessary to test the applicability of candidate designs or technologies?</li> <li>• The frequency of monitoring or inspection of the equipment?</li> <li>• The range of operating conditions over which the component will be evaluated?</li> <li>• The beginning date and actual duration of performance trials for each candidate superior emission performing technology?</li> <li>• Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial pump seal technologies or pumps?</li> <li>• If all alternatives are judged to be technically infeasible or incapable of reducing emissions, an engineering evaluation of each alternative documenting the physical, chemical, or engineering basis for the judgment?</li> </ul> | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <p>(d) All of the following records of ongoing activities during the QIP:</p> <ul style="list-style-type: none"> <li>• The rolling average percent leaking pumps? §§63.1035(e)(1)(i) and 63.1038(c)(7)(v)</li> </ul>  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
-

Table 4-3. (continued)

## I. Review of Records

• Documentation of all inspections of pumps or pump seals that exhibited frequent seal failures and were removed from the process unit or affected source due to leaks? §§63.1035(d)(4) and (e)(1)(ii) and 63.1038(c)(7)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• The beginning and end dates for the QIP? §§63.1035(e)(1)(iii) and 63.1038(c)(7)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• If a leak is not repaired within 15 calendar days after its discovery, the reason for the delay and the expected date of successful repair? §§63.1035(e)(2) and 63.1038(c)(7)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(e) Quality assurance program documentation, including records indicating that all pumps replaced or modified during the period of the QIP are in compliance with the quality assurance program? §§63.1035(d)(7) and (e)(4) and 63.1038(c)(7)(iv) and (v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(f) The following records related to the pump or pump seal replacement requirements:  <i>Note: The number of years after starting the QIP when replacements must begin is specified in §63.1035(d)(8).</i>			
• Records documenting compliance with the 20 percent or greater annual replacement rate? §§63.1035(e)(5) and 63.1038(c)(7)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• If complying with the schedule for corporations with fewer than 100 employees, information documenting the number of employees, including employees providing professional and technical contracted services? §§63.1035(e)(6) and 63.1038(c)(7)(v)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
15. If emissions from pumps, agitators, pressure relief devices, or compressors are routed through a closed-vent system to a control device, are records maintained of all of the following information: §63.998(d)(4) as referenced from §§63.1034(b), 63.982(b) and (c)(3), and 63.986(c)			
(a) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(b) The dates and descriptions of any changes in the design specifications?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(c) A description of the parameter or parameters monitored to ensure that the control device is operated and maintained as designed, and a description of why each parameter was selected for monitoring?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(d) Dates and durations when the monitored parameter values indicate the closed-vent system and control device(s) were not being operated as designed?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(e) Dates and durations when the monitoring device was inoperative?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(f) Dates and durations of startup and shutdown of the control device?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N

Table 4-3. (continued)

**I. Review of Records**

16. If the facility complies with the alternative equipment monitoring schedule for batch processes as specified in §63.1036(c), are records maintained of all of the following information: §63.1036(d) and 63.1038(c)(8)(ii)

*Note: All other items in this checklist also apply when the facility complies with this alternative.*

(a) A list of equipment added to the batch product process since the last monitoring?  Y  N/A  N

(b) For any components for which the facility adjusts the monitoring frequency in accordance with this alternative, documentation demonstrating the proportion of time during the calendar year that the equipment is in use?  Y  N/A  N

(c) The following information related to monitoring any new equipment added to a reconfigured batch process:

• Date of the monitoring?  Y  N/A  N

*Note: The monitoring must be conducted within 30 days of startup of the process.*

• Either the actual monitoring results if leaks were found or a statement that the monitoring was conducted if no leaks were found?  Y  N/A  N

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

*Note: Some records must be kept longer. For example, if connectors are monitored once every 8 years, leak repair records must be kept 5 years beyond the date of their last use. §63.1023(e)(2)*

**II. Visual Inspections**

1. Are visible, weatherproof identifications attached to all equipment that has been determined to be leaking and has not yet been repaired, including equipment determined to be nonrepairable? §63.1023(e)(1)  Y  N/A  N

2. Are visible, weatherproof identifications attached to all valves and connectors that were repaired less than 3 months ago? §63.1024(c)(1)  Y  N/A  N

3. Is a rupture disk in place upstream of each pressure relief device for which the facility claims exemption from the otherwise required monitoring? §63.1030(e)  Y  N/A  N

4. Are sampling connection systems equipped with a closed-purge, closed-loop, or closed-vent system? §63.1032(b)  Y  N/A  N

*Note: In-situ sampling systems are exempt from this requirement. §63.1032(d)*





**Table 4-4. Compliance Checklist for Pressure Testing to Identify Equipment Leaks**

Note: Use this checklist for each process that is pressure tested as specified in §63.1036(b). 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 §63.1036(b)(7) and 63.1038(c)(8)(i)**


---

1. Do records identify each product produced during the calendar year (or codes for those products)?  Y  N/A  N
  2. Is the process equipment either physically tagged, or is it identified on a plant site plan, in log entries, or by some other method?  Y  N/A  N
  3. Is all of the following information recorded for each pressure test:
    - (a) Date of the test?  Y  N/A  N
    - (b) The test pressure?  Y  N/A  N
    - (c) The observed pressure drop, for a gas pressure/vacuum test?  Y  N/A  N
    - (d) Documentation of any visible, audible, or olfactory evidence of fluid loss, for a liquid pressure test?  Y  N/A  N
  4. Is all of the following information recorded anytime the process equipment train does not pass two consecutive pressure tests:
 

*Note: Section 63.1036(b)(7)(v) specifies that these records must be maintained for only 2 years.*

    - (a) The date of each pressure test?  Y  N/A  N
    - (b) Repair methods applied in each attempt to repair the leak(s)?  Y  N/A  N
    - (c) All of the following information if repair is not completed within 30 calendar days after the second pressure test:
      - Reason for the delay?  Y  N/A  N
      - Expected date for delivery of the replacement equipment?  Y  N/A  N
      - Actual date of delivery of the replacement equipment?  Y  N/A  N
    - (d) Date of successful repair?  Y  N/A  N
  5. Are all records kept for at least 5 years, except as noted above? §63.10(b)(1)  Y  N/A  N
-



**Table 4-5. Checklist for Determining Compliance with the Enclosed Process Alternative for Equipment Leaks**

Note: Use this checklist for each process or portion of a process that is enclosed and emissions from equipment leaks are routed through a closed-vent system to a control device in accordance with §63.1016 or §63.1037. 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 specific identification of equipment in enclosed process units from which equipment leaks are routed to a process, fuel gas system, or through a closed-vent system to a control device? §63.1003(b)(2) or §63.1022(b)(2)  Y  N/A  N  
*Note: No other records in this checklist (Table 4-5) apply if emissions are routed to a process or fuel gas system.*
2. Do records document all of the following information about the process unit and the enclosure: §§63.1037(b) and 63.1038(c)(9), or §§63.1016(b) and 63.1017(c)(7)
  - (a) Identification of the process unit and the organic HAP that it handles?  Y  N/A  N
  - (b) A schematic of the process unit, enclosure, and closed-vent system?  Y  N/A  N
  - (c) A description of the system used to create a negative pressure in the enclosure?  Y  N/A  N
3. Do records document all of the following information, if emissions are routed through a closed-vent system to a control device: §63.998(d)(4), as referenced from §§63.1037(a) or 63.1016(a), 63.1034(b)(2) or 63.1015(b), 63.982(b) and (c)(3), and 63.986(c)
  - (a) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams?  Y  N/A  N
  - (b) The dates and descriptions of any changes in the design specifications?  Y  N/A  N
  - (c) A description of the parameter or parameters monitored to ensure that the control device is operated and maintained as designed, and a description of why each parameter was selected for monitoring?  Y  N/A  N
  - (d) Dates and durations when the monitored parameter values indicate the closed-vent system and control device(s) were not being operated as designed?  Y  N/A  N
  - (e) Dates and durations when the monitoring device was inoperative?  Y  N/A  N
  - (f) Dates and durations of startup and shutdowns of the control devices?  Y  N/A  N
4. Are all records kept for at least 5 years? §63.10(b)(1)  Y  N/A  N



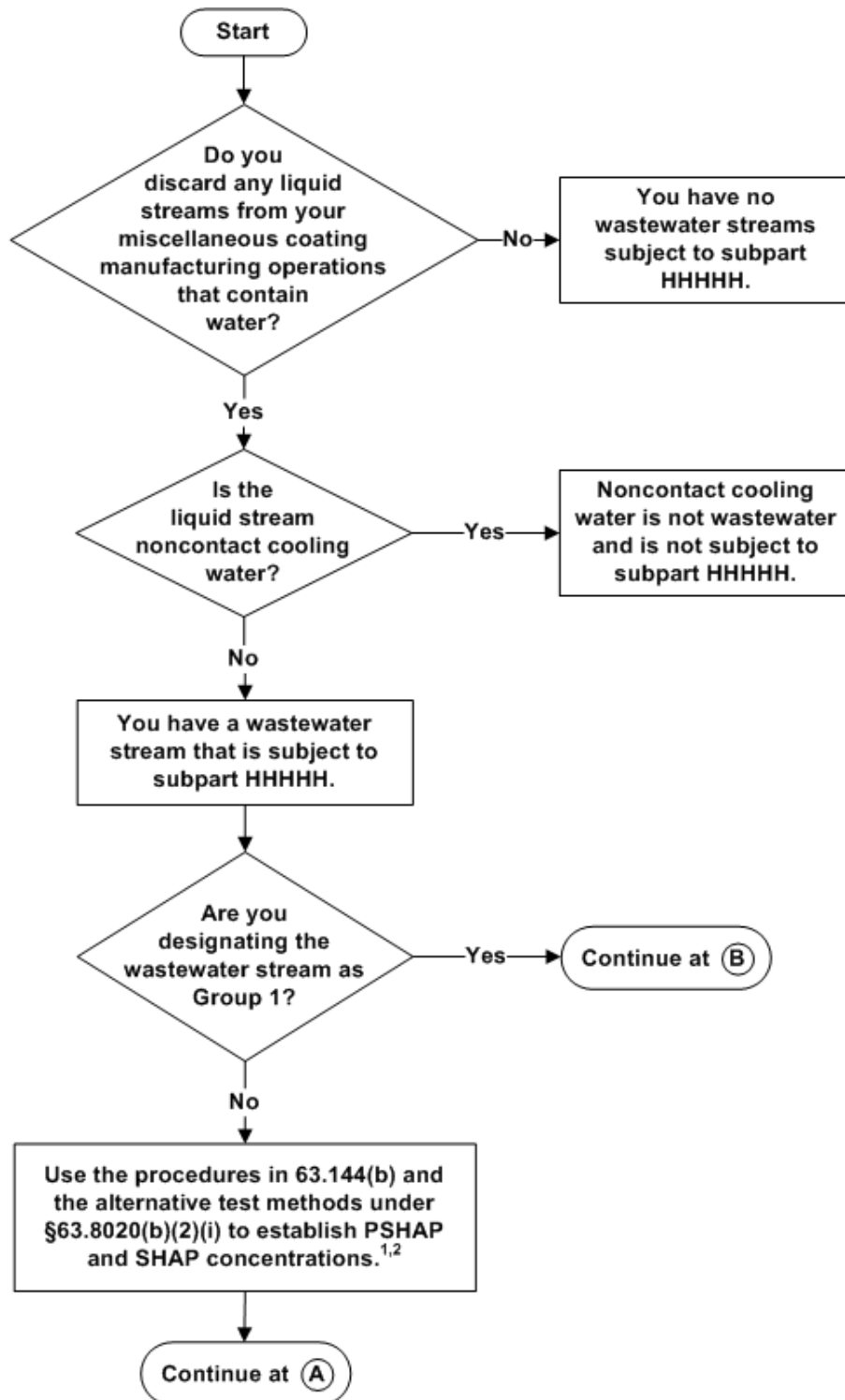
*[This page intentionally left blank.]*

## **Section 5**

### **Requirements for Wastewater and Heat Exchange Systems**

*[This page intentionally left blank.]*





<sup>1</sup> PSHAP means partially soluble HAP that are listed in Table 7 to subpart HHHHH.  
<sup>2</sup> SHAP means soluble HAP that are listed in Table 8 to subpart HHHHH.

Figure 5-1. Flowchart of applicability and control requirements for wastewater streams.

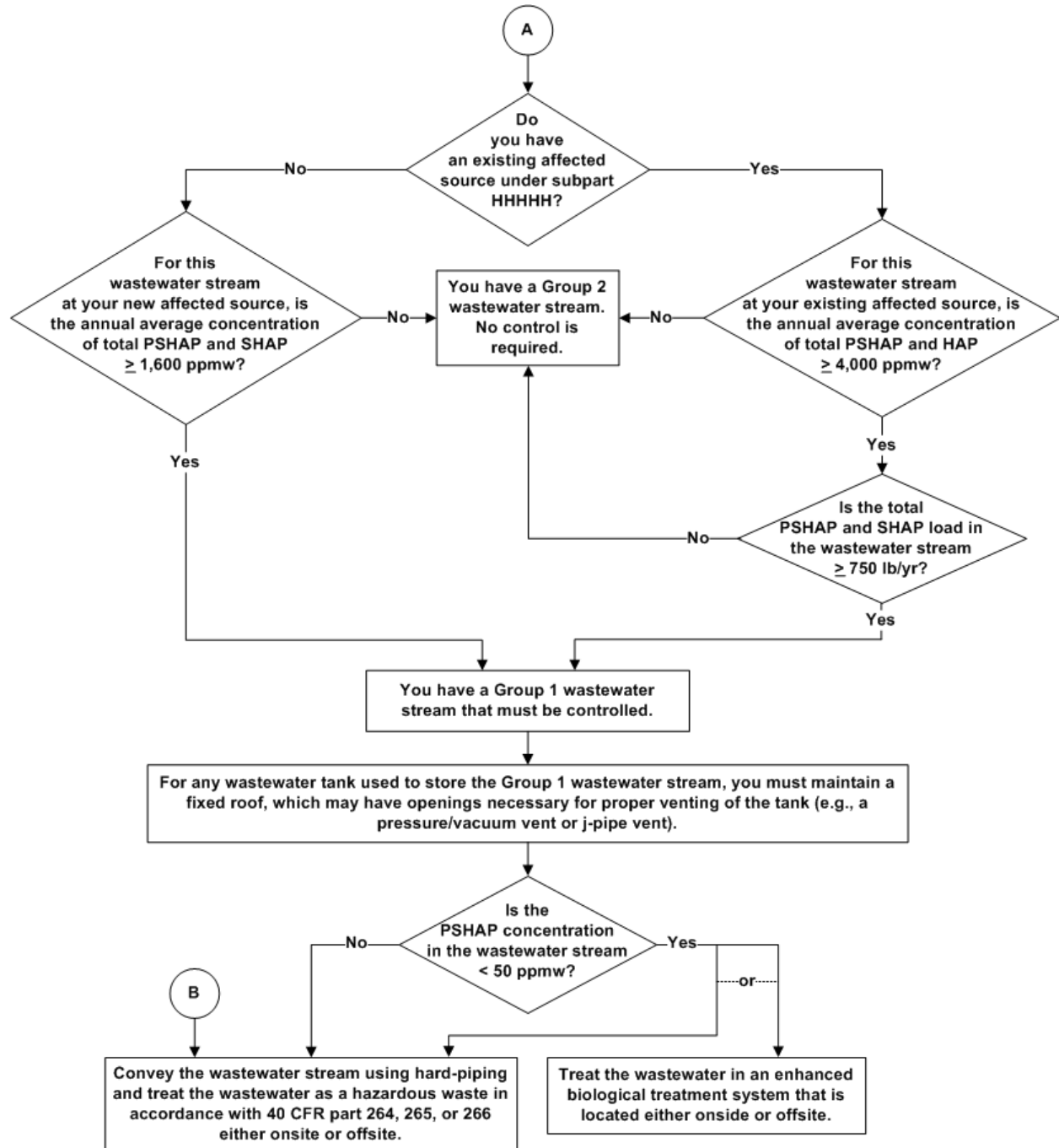


Figure 5-1. (continued)

**Table 5-1. Compliance Checklist for Wastewater**

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

---

**I. Review of Records** *(only applicable for treatment in an enhanced biological unit)*


---

- |   |  |
|---|--|
| 1. Do records indicate that the partially soluble HAP content of wastewater entering the enhanced biological treatment unit is < 50 ppmw? <i>Table 4 to subpart HHHHH</i>   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |
| 2. If the enhanced biological treatment unit is onsite, do records show that the facility provided either of the following in their precompliance report? §63.8020(c)   |  |
| (a) Proposed operating limits, monitoring frequencies, and methods for monitoring all of the following:   |  |
| • Total suspended solids?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| • Biological oxygen demand?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| • Biomass concentration?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) A request to monitor other parameters along with a description of planned recordkeeping and reporting procedures?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 3. If the enhanced biological treatment unit is onsite, does the facility keep records of the monitored parameters? §63.8020(c)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 4. If Group 1 wastewater is shipped offsite for enhanced biological treatment, does the facility have written certification from the offsite facility that they will comply with the requirements of subpart HHHHH? §63.8080(d) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 5. Are records of monitored data, or certifications from offsite treatment facilities, kept for at least 5 years? §63.10(b)(1)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
- 

**II. Visual Inspections**


---

- |   |  |
|---|--|
| 1. For an onsite enhanced biological treatment unit, are monitoring devices in place and operating?                                       | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 2. Are any wastewater tanks (prior to treatment or shipping offsite) equipped with a fixed roof? <i>Table 4 to subpart HHHHH</i>          | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 3. If wastewater is treated as hazardous waste, is the wastewater conveyed onsite using only hard-piping? <i>Table 4 to subpart HHHHH</i> | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
-



**Table 5-2. Compliance Checklist for Heat Exchange Systems Requiring Leak Detection**

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

---

**I. Review of Records**


---

- |   |  |
|---|--|
| 1. Do records indicate that heat exchange systems are monitored for leaks by either of the following (provided they are not exempt from monitoring):<br><i>§63.104(b) and (c)</i> | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (a) Monitoring for the presence of one or more HAP or other representative substances, or   |  |
| (b) Monitoring using a surrogate indicator of leaks?  |  |
| 2. When monitoring of a surrogate indicator of heat exchange system leaks is used, is a monitoring plan available that contains all of the following:<br><i>§63.104(c)(1)</i>     |  |
| (a) The procedures that will be used to detect leaks of process fluids into cooling water?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (b) A description of the parameter(s) or condition(s) to be monitored?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (c) An explanation of how the selected parameter(s) or condition(s) will reliably indicate the presence of a leak?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (d) The parameter level(s) or condition(s) that constitute a leak, including supporting data and calculations?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (e) The monitoring frequency (which must be no less frequent than monthly for the first 6 months and quarterly thereafter)?   | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (f) The records that will be maintained?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| 3. If monitoring results indicate a leak is detected, are records of all of the following available: <i>§63.104(d)(1), (f)(1)(i), and (f)(1)(ii)</i>                              |  |
| (a) Monitoring records identifying the leak?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (b) Date the leak was detected?   | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (c) If the results were determined to be due to a condition other than a leak, the basis for that determination?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| 4. If the results are confirmed to be a leak, are records of all of the following available: <i>§63.104(f)(1)(iii) and (iv)</i>   |  |
| (a) Date(s) of efforts to repair the leak?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (b) The method or procedure used to confirm repair of the leak?   | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
| (c) Date the repair was confirmed?  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A |
-

Table 5-2. (continued)

I. Review of Records

5. If repair of a leak has been delayed, do records indicate either of the following, along with a schedule for completing the repair as soon as practical: §63.104(e)(2)(i) and (ii)  Y  N  N/A

(a) The basis of a determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delaying repair, or

(b) Evidence that the necessary parts or personnel were not available to make the repair?

Note: Documentation is not necessary if the leaking equipment is isolated from the coating manufacturing operations, or if a shutdown is scheduled within the next 2 months after determination that a delay of repair is necessary. §63.104(e) introductory text and (e)(1)

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

II. Note All Deficiencies

Multiple horizontal lines for recording deficiencies.

## **Section 6**

### **Requirements for Transfer Operations**

*[This page intentionally left blank.]*



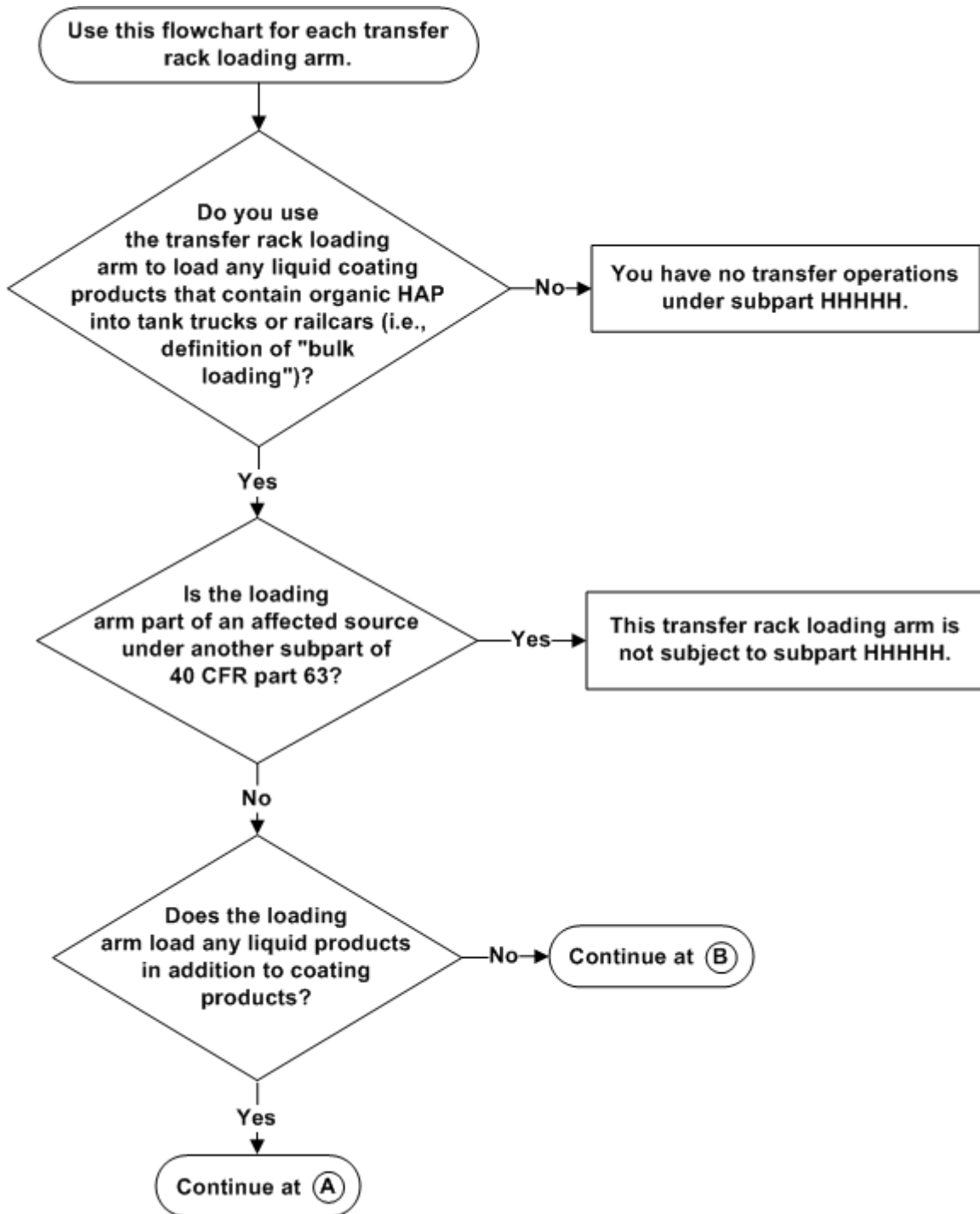
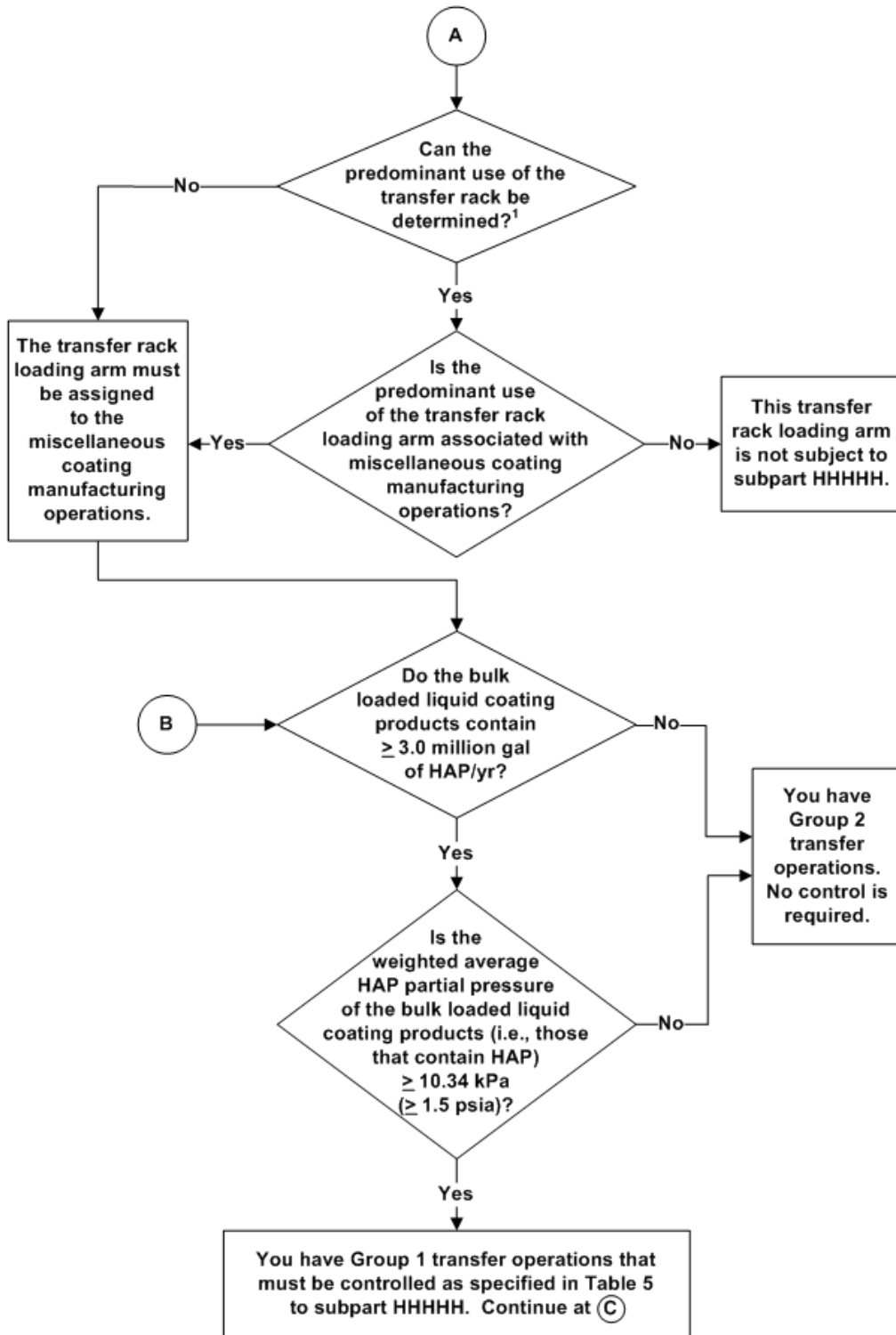
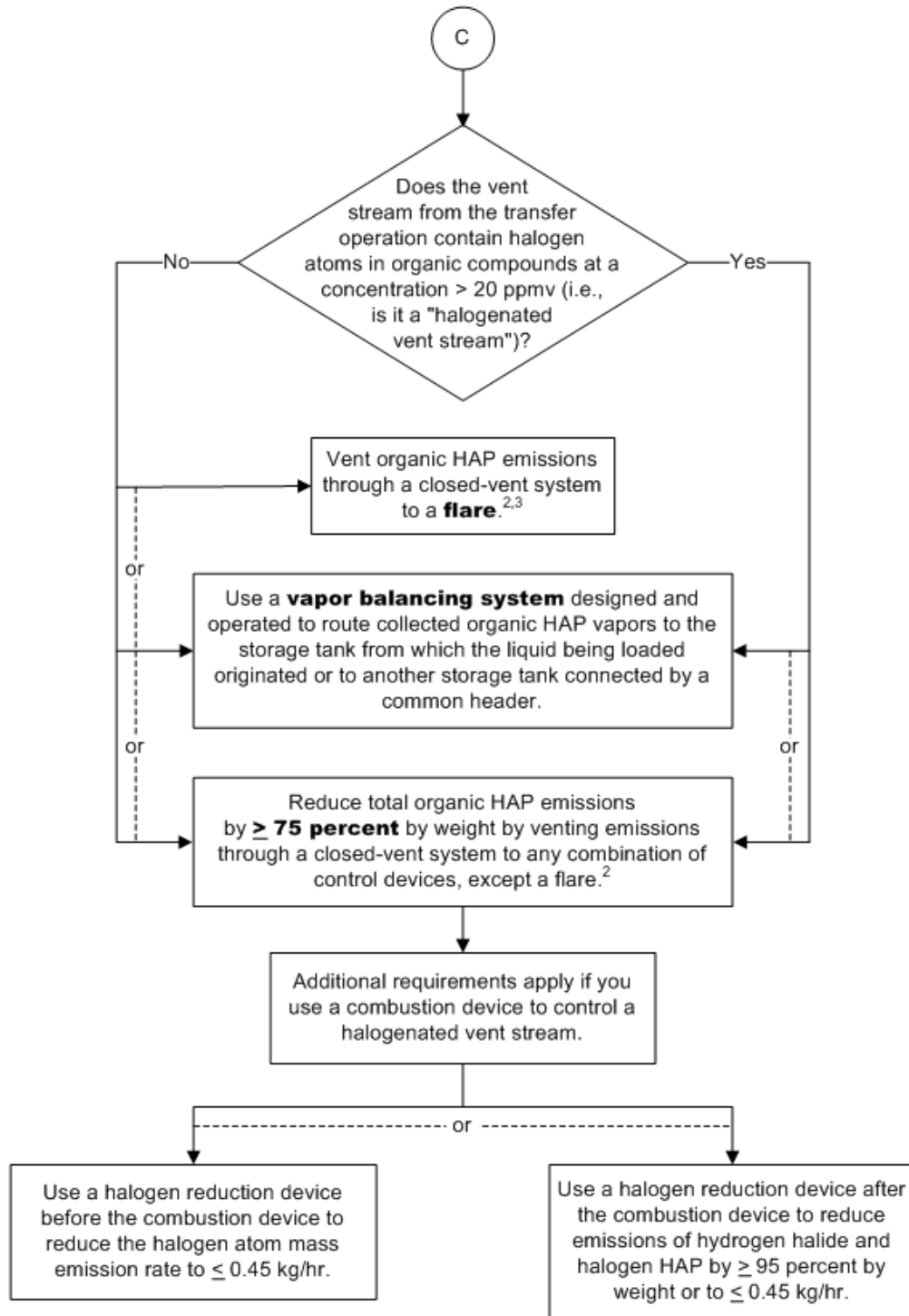


Figure 6-1. Flowchart of applicability and control requirements for transfer operations.



<sup>1</sup> Results of the initial determination of predominant use must be included in the notification of compliance status report. You must redetermine the predominant use at least once every 5 years after the compliance date.

Figure 6-1. (continued)



<sup>2</sup> A closed-vent system is subject to the compliance requirements in §63.983 of subpart SS.

<sup>3</sup> A flare is subject to the compliance requirements in §63.11(b) of subpart A (General Provisions).

Figure 6-1. (continued)

*[This page intentionally left blank.]*

## **Section 7**

### **Requirements for Closed-Vent Systems and Control Devices**

*[This page intentionally left blank.]*

**Table 7-1. Compliance Checklist for Bypass Line Provisions for Closed-Vent Systems**

Note: Complete this checklist for each closed-vent system that contains a bypass line that could divert a vent stream away from a control device to the atmosphere. A “yes” response to a question indicates compliance with that requirement, and a “no” response indicates noncompliance with the requirement. If a question is not applicable, check the “N/A” box.

Note: The items in this checklist do not apply to low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes.

---

### I. Review of Records

---

1. Are all of the following records available for a bypass line that is equipped with a flow indicator: §63.998(d)(1)(ii)(A)
    - (a) Hourly records of whether the flow indicator in the bypass line was operating?  Y  N/A  N
    - (b) Whether a diversion was detected at any time during each hour?  Y  N/A  N
    - (c) The times of all periods when the vent stream was diverted from the control device?  Y  N/A  N
    - (d) The times of all periods when the flow indicator was not operating?  Y  N/A  N
  2. Are all of the following records available for a bypass line that is equipped with a seal mechanism: §63.998(d)(1)(ii)(B)
    - (a) Occurrence of each monthly inspection of the seals or closure mechanism?  Y  N/A  N
    - (b) All periods when the seal mechanism was broken, the bypass line valve position was changed, or the key to unlock the bypass line valve was checked out?  Y  N/A  N
- 

### II. Visual Inspection

---

1. Is a flow indicator is present at the entrance to any bypass line that could divert the vent stream flow away from the control device to the atmosphere, or are all bypass line valves sealed in a closed position (e.g., with a car seal or lock-and-key configuration).  Y  N/A  N
-





**Table 7-2. Compliance Checklist for Closed-Vent Systems**

Note: Complete this checklist for each closed-vent system. A “yes” response to a question indicates compliance with that requirement, and a “no” response indicates noncompliance with the requirement. If a requirement is not applicable, check the “N/A” box.

Note: This checklist does not apply to closed-vent systems that are operated under negative pressure. §63.983(a)

---

**I. Review of Records**


---

1. Are records kept that identify all parts of closed-vent systems that are designated as either unsafe-to-inspect or difficult-to-inspect? §63.998(d)(1)(i)  Y  N/A  N
  2. For equipment that is designated as difficult to inspect, is a written plan kept that describes the actual monitoring frequency that will be used (and is at least once every 5 years)? §§63.983(b)(3)(ii) and 63.998(d)(1)(i)  Y  N/A  N
  3. For equipment that is designated as unsafe to inspect, is a written plan kept that indicates equipment will be inspected as frequently as practicable during safe-to-inspect times (but not more frequently than annually)? §§63.983(b)(2)(ii) and 63.998(d)(1)(i)  Y  N/A  N
  4. For each annual inspection during which a leak was detected, was all of the following information recorded and reported:<sup>a</sup> §63.998(d)(1)(iii)
    - (a) Identification information of the leaking closed-vent system?  Y  N/A  N
    - (b) Name or initials of operator conducting the inspection?  Y  N/A  N
    - (c) Instrument identification number, if instrument monitoring applies?  Y  N/A  N
    - (d) Date the leak was detected?  Y  N/A  N
    - (e) Date of the first attempt to repair the leak?  Y  N/A  N
    - (f) Maximum instrument reading after the leak is repaired or determined to be non-repairable?  Y  N/A  N
    - (g) Explanation of delay in repair, if the leak was not repaired within 15 days after it was discovered?  Y  N/A  N
    - (h) Date of successful repair of the leak?  Y  N/A  N
  5. For each inspection during which no leaks were detected, were records kept of all of the following:<sup>a</sup> §63.998(d)(1)(iv)
    - (a) Record that the inspection was performed?  Y  N/A  N
    - (b) Date of the inspection?  Y  N/A  N
    - (c) Statement that no leaks were found?  Y  N/A  N
-



**Table 7-3. Compliance Checklist for Flares**

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

Flare Identification: \_\_\_\_\_

**I. Review of Records**

1. Is all of the following information recorded (and included in the flare compliance assessment report): §63.998(a)(1)(i)(A) through (C)
  - (a) Flare design (i.e., steam-assisted, air-assisted, or non-assisted)?  Y  N
  - (b) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the flare compliance assessment?  Y  N
  - (c) All periods during the flare compliance assessment when all pilot flames are absent or, if only the flare flame is monitored, all periods when the flare flame is absent?  Y  N/A  N
2. Are hourly records kept of whether the monitor is continuously operating and whether the flare flame or at least one pilot flame is continuously present? §63.998(a)(1)(ii)  Y  N
3. Are records kept of the times and durations of all periods during which the flare flame or all pilot flames are absent? §63.998(a)(1)(iii)(A)  Y  N/A  N
4. Are records kept of the times and durations of all periods during which the monitor is not operating? §63.998(a)(1)(iii)(B)  Y  N/A  N
5. Are all records kept for at least 5 years? §63.10(b)(1)  Y  N

**II. Visual Inspection**

1. Is a device for detecting pilot flames or the flare flame present and operating?  Y  N

**III. Note All Deficiencies**

---



---



---



---



---



---



---

**Table 7-3. (continued)**

---

**III. Note All Deficiencies**

---

---

---

---

---

---

---

**Table 7-4. Compliance Checklist for Thermal Incinerators**

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

Thermal Incinerator Identification: \_\_\_\_\_

---

**I. Review of Records**


---

1. Does the facility maintain the initial compliance records in (a) or (b):

(a) The following records of performance tests:

• Either the percent reduction or outlet concentration of organic HAP or TOC? §63.998(a)(2)(ii)(B)(4)  Y  N/A  N

• The firebox temperature averaged over the full period of the performance test? §63.998(a)(2)(ii)(B)(1)  Y  N/A  N

(b) Documentation of the design evaluation in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N

*Note: A design evaluation may be conducted as an alternative to a performance test if the thermal incinerator is a small control device. §63.8000(d)(2)*

2. Do records document that the facility continuously monitors the temperature of the gas stream in the firebox (or in the ductwork immediately downstream of the firebox before any substantial heat exchange occurs) or does the facility have documentation that they requested and received approval to conduct an alternative to continuous monitoring or to monitor an alternative parameter(s)? §§63.988(c)(1) and 63.996(d)  Y  N

3. If the facility continuously monitors temperature (or other approved parameters), has the facility:

(a) Established a site-specific operating range for the monitored parameter? §63.996(c)(6)  Y  N/A  N

(b) Followed manufacturer’s or other written specifications or recommendations for installation, operation, and calibration of the monitoring equipment? §63.996(c)(1) and (3)  Y  N/A  N

---

Table 7-4. (continued)

## I. Review of Records

- (c) Maintained records of continuously monitored values in one of the following formats: §63.998(b)(1)  Y  N/A  N

- all measured values, or
- all block average values for 15-minute or shorter periods calculated from all measured data values during each period (or from at least one measured data value per minute if measured more frequently than once per minute), or
- all continuous records for only the most recent 3 valid hours of records, and block hourly average values for earlier data?

*Note: To use the third option, the data must be collected from an automated CPMS, and the hourly averages must include periods of CPMS breakdown and malfunction. (§63.998(b)(1)(iii)).*

- (d) Maintained records of either daily average values or a statement that all values were within the established operating range? §63.998(b)(3)  Y  N/A  N

*Note: If the owner or operator chooses this option and the daily average value is not calculated and recorded, then continuous or short-term block averages may not be discarded as otherwise allowed by the third option in item “c” above. §63.998(b)(3)(ii)*

*Note: Averages may be over an operating block if the thermal incinerator is used to control emissions from process vessel vents and the owner or operator establishes separate operating limits for different emission episodes. §63.8005(f)*

*Note: Daily (or operating block) averages must be reported in the compliance reports for all days when an excursion occurred. An excursion is either a daily average value outside the established range or a day for which insufficient monitoring data were collected. §63.999(c)(6)*

- (e) As an alternative to “c” and “d” above when the conditions for alternative recordkeeping in §63.998(b)(5)(i)(A) through (F) are met, does the facility meet both of the following requirements:

*Note: This alternative is allowed if the thermal incinerator is used for process vessel vents and transfer racks, but not storage tanks. §63.998(b)(5) introductory paragraph*

- Document in their notification of compliance status report or a compliance report that they were implementing this alternative?  Y  N/A  N
- Retain only the daily average?  Y  N/A  N

*Note: No record of the daily average is required if 6 months have passed without an excursion. §63.998(d)(5)(ii)*

Table 7-4. (continued)

**I. Review of Records**

- |   |  |
|---|--|
| (f) Maintained records of the occurrence and cause of all periods when the monitored temperature is outside the established range? §63.998(d)(5)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 4. If the facility received approval to monitor an alternative parameter, are they performing the recordkeeping approved by the Administrator (§§63.999(d)(1) and (2), 63.8(f), and 63.10(b)(2)(vii) for control devices used for all other emissions)?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <i>Note: If an alternative parameter is monitored continuously, the records described above in item "3" would be required for the alternative parameter. Alternative recordkeeping might be required if the alternative monitoring is not continuous.</i> |  |
| 5. For any CPMS, does the facility have records of all of the following: §63.998(c)(1)(i) and (ii)  |  |
| (a) The procedure used for calibrating the CPMS?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) The date and time of completion of calibration and preventive maintenance of the CPMS?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) The start time and duration (or start and stop times) of any periods when the CPMS is inoperative?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (e) The occurrence and duration of each startup, shutdown, and malfunction of the CPMS during which excess emissions occur?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (f) Documentation of whether procedures specified in the source's startup, shutdown, and malfunction plan were followed for each startup, shutdown, and malfunction during which excess emissions occurred?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (g) Documentation of each startup, shutdown, and malfunction event?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (h) Documentation that there were no excess emissions during each startup, shutdown, or malfunction event, as applicable?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (i) The total duration of operating time during the reporting period?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 6. Are all required records kept for at least 5 years? §63.10(b)(1)   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |

**II. Visual Inspection**

- |   |   |
|---|---|
| 1. Is a temperature monitoring device present in the firebox or in the ductwork immediately downstream from the firebox, or is an approved alternative monitor present and operating? | <input type="checkbox"/> Y <input type="checkbox"/> N |
|---|---|





**Table 7-5. Compliance Checklist for Catalytic Incinerators**

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

Catalytic Incinerator Identification: \_\_\_\_\_

---

**I. Review of Records**


---

1. Does the facility maintain either of the following initial compliance records:

(a) Both of the following records of performance tests:

- Either the percent reduction or outlet concentration of organic HAP or TOC? §63.998(a)(2)(ii)(B)(4)  Y  N/A  N
- The upstream temperature, downstream temperature, and temperature difference across the catalyst bed, all averaged over the full period of the performance test? §63.998(a)(2)(ii)(B)(2)  Y  N/A  N

(b) Documentation of the design evaluation in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N

*Note: A design evaluation may be conducted as an alternative to a performance test if the catalytic incinerator is a small control device. §63.8000(d)(2)*

2. Do records document that the facility meets one of the following monitoring requirements to demonstrate ongoing compliance for the catalytic incinerator:  Y  N

(a) Temperatures are monitored according to the following procedures: §§63.988(c)(2) and 63.998(c)(2)(ii)

- continuous monitoring of the gas stream temperature immediately before and after the catalyst bed?
- average temperature differential across the catalyst bed is determined daily?

(b) Has documentation that they requested and received approval to conduct an alternative to continuous monitoring or to monitor an alternative parameter(s)? §63.996(d)

3. For each continuously monitored parameter, has the facility:

(a) Established a site-specific operating range? §63.996(c)(6)  Y  N/A  N

---

Table 7-5. (continued)

## I. Review of Records

- (b) Maintained records of monitoring data in one of the following formats:  Y  N/A  N  
 §§63.998(b)(1) and 63.147(d)

- All measured values, or
- All block average values for 15-minute or shorter periods calculated from all measured data values during each period (or from at least one measured data value per minute if measured more frequently than once per minute), or
- All continuous records for only the most recent 3 valid hours of records, and block hourly average values for earlier data?

*Note: To use the third option, the data must be collected from an automated CPMS, and the hourly averages must include periods of CPMS breakdown and malfunction (§63.998(b)(1)(iii)).*

- (c) Maintained records of either daily average values or a statement that all values were within the established operating range?  Y  N/A  N  
 §§63.998(b)(3) and 63.147(d)

*Note: If the daily average value is not calculated and recorded, then continuous or short-term block averages may not be discarded as otherwise allowed by the third option in item “c” above.  
 §63.998(b)(3)(ii)*

*Note: Averages may be over an operating block if the catalytic incinerator is used to control emissions from process vessel vents and the owner or operator establishes separate operating limits for different emission episodes. §63.8005(f)*

*Note: Daily (or operating block) averages must be reported in the compliance reports for all days when an excursion occurred. An excursion is either a daily average value outside the established range or a day for which insufficient monitoring data were collected.  
 §63.999(c)(6)*

- (d) As an alternative to “b” and “c” above when the conditions for alternative recordkeeping in §63.998(b)(5)(i)(A) through (F) are met, does the facility meet both of the following requirements:

*Note: This alternative is allowed if the catalytic incinerator is used for process vents and transfer racks, but not storage tanks. §63.998(b)(5) introductory paragraph*

- Document in their notification of compliance status report or a compliance report that they were implementing this alternative?  Y  N/A  N
- Retain only the daily average?  Y  N/A  N

*Note: No record of the daily average is required if 6 months have passed without an excursion. §§63.998(d)(5)(ii)*

Table 7-5. (continued)

**I. Review of Records**

- |   |  |
|---|--|
| 4. If the facility monitors the inlet and outlet temperatures as specified in §63.988(c)(2), have they established a site-specific operating range for the temperature differential across the catalyst bed, and do they maintain records of the daily average temperature differential? §63.996(c)(6) and 63.998(c)(2)(ii) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 5. If the facility received approval to monitor an alternative parameter, are they performing the recordkeeping approved by the Administrator (§§63.999(d)(1) and (2), 63.8(f), and 63.10(b)(2)(vii))?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <i>Note: If an alternative parameter is monitored continuously, the records described above in item "3" would be required for the alternative parameter. Alternative recordkeeping might be required if the alternative monitoring is not continuous.</i>   |  |
| 6. Do records document the occurrence and cause of all periods when the daily averages of the continuously monitored parameters are outside their established ranges? §63.998(c)(2)(iii) and 63.998(d)(5)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <i>Note: This requirement also applies to the temperature differential across the catalyst.</i>   |  |
| 7. For each CPMS, does the facility have manufacturer's or other written specifications or recommendations for installation, operation, and calibration of the monitoring equipment? §63.996(c)(1) and (3)  |  |
| 8. For each CPMS, does the facility have records of all of the following: §63.998(c)(1)(i) and (ii)   |  |
| (a) The procedure used for calibrating the CPMS?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) The date and time of completion of calibration and preventive maintenance of the CPMS?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) The start time and duration (or start and stop times) of any periods when the CPMS is inoperative?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (e) The occurrence and duration of each startup, shutdown, and malfunction of the CPMS during which excess emissions occur?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (f) Documentation of whether procedures specified in the source's startup, shutdown, and malfunction plan were followed for each startup, shutdown, and malfunction during which excess emissions occurred?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (g) Documentation of each startup, shutdown, and malfunction event?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (h) Documentation that there were no excess emissions during each startup, shutdown, or malfunction event, as applicable?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (i) The total duration of operating time during the reporting period?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |



**Table 7-6. Compliance Checklist for a Boiler or Process Heater with a Design Heat Input Capacity Less than 44 Megawatts and the Vent Stream Is Not Introduced with the Primary Fuel**

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

Boiler or Process Heater Identification: \_\_\_\_\_

---

### I. Review of Records

---

1. Does the facility maintain either of the following initial compliance records:

(a) All of the following records of performance tests:

- A description of the location at which the vent stream is introduced into the boiler or process heater? §63.998(a)(2)(ii)(B)(5)  Y  N/A  N
- Either the percent reduction or outlet concentration of organic HAP or TOC? §63.998(a)(2)(ii)(B)(6)  Y  N/A  N
- The firebox temperature averaged over the full period of the performance test? §63.998(a)(2)(ii)(B)(3)  Y  N/A  N

(b) Documentation of the design evaluation in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N

*Note: A design evaluation may be conducted as an alternative to a performance test if the boiler or process heater is a small control device. §63.8000(d)(2)*

2. Do records document that the facility continuously monitors the temperature of the gas stream in the firebox, or does the facility have documentation that they requested and received approval to conduct an alternative to continuous monitoring or to monitor an alternative parameter(s)? §§63.988(c)(1) and 63.996(d)  Y  N

3. For each continuously monitored parameter, has the facility:

- (a) Established a site-specific operating range for the monitored parameter? §63.996(c)(6)  Y  N/A  N
  - (b) Followed manufacturer’s or other written specifications or recommendations for installation, operation, and calibration of the monitoring equipment? §63.996(c)(1) and (3)  Y  N/A  N
-

Table 7-6. (continued)

## I. Review of Records

- (c) Maintained records of continuously monitored values in one of the following formats: §63.998(b)(1)  Y  N/A  N

- all measured values, or
- all block average values for 15-minute or shorter periods calculated from all measured data values during each period (or from at least one measured data value per minute if measured more frequently than once per minute), or
- all continuous records for only the most recent 3 valid hours of records, and block hourly average values for earlier data?

*Note: To use the third option, the data must be collected from an automated CPMS, and the hourly averages must include periods of CPMS breakdown and malfunction (§63.998(b)(1)(iii)).*

- (d) Maintained records of either daily average values or a statement that all values were within the established operating range? §63.998(b)(3)  Y  N/A  N

*Note: If the daily average value is not calculated and recorded, then continuous or short-term block averages may not be discarded as otherwise allowed by the third option in item “c” above. §63.998(b)(3)(ii)*

*Note: Averages may be over an operating block if the boiler or process heater is used to control emissions from process vessel vents and the owner or operator establishes separate operating limits for different emission episodes. §63.8005(f)*

*Note: Daily (or operating block) averages must be reported in the compliance reports for all days when an excursion occurred. An excursion is either a daily average value outside the established range or a day for which insufficient monitoring data were collected. §63.999(c)(6)*

- (e) As an alternative to “c” and “d” above when the conditions for alternative recordkeeping in §63.998(b)(5)(i)(A) through (F) are met, does the facility meet both of the following requirements:

*Note: This alternative is not allowed if the boiler or process heater is used only for storage tanks. §63.998(b)(5) introductory paragraph*

- Document in their notification of compliance status report or a compliance report that they were implementing this alternative?  Y  N/A  N
- Retain only the daily average?  Y  N/A  N

*Note: No record of the daily average is required if 6 months have passed without an excursion. §63.998(d)(5)(ii)*

Table 7-6. (continued)

**I. Review of Records**

- |   |  |
|---|--|
| (f) Maintained records of the occurrence and cause of all periods when the monitored temperature is outside the established range?<br>§§63.998(c)(2)(iii) and 63.998(d)(5)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 4. If the facility received approval to monitor an alternative parameter, are they performing the recordkeeping approved by the Administrator? §63.999(d)(1) and (2), 63.8(f), and 63.10(b)(2)(vii)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <i>Note: If an alternative parameter is monitored continuously, the records described above in item "3" would be required for the alternative parameter. Alternative recordkeeping might be required if the alternative monitoring is not continuous.</i> |  |
| 5. For any CPMS, does the facility have records of all of the following:<br>§63.998(c)(1)(i) and (ii)   |  |
| (a) The procedure used for calibrating the CPMS?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) The date and time of completion of calibration and preventive maintenance of the CPMS?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) The start time and duration (or start and stop times) of any periods when the CPMS is inoperative?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (e) The occurrence and duration of each startup, shutdown, and malfunction of the CPMS during which excess emissions occur?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (f) Documentation of whether procedures specified in the source's startup, shutdown, and malfunction plan were followed for each startup, shutdown, and malfunction during which excess emissions occurred?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (g) Documentation of each startup, shutdown, and malfunction event?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (h) Documentation that there were no excess emissions during each startup, shutdown, or malfunction event, as applicable?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (i) The total duration of operating time during the reporting period?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 6. Are all required records kept for at least 5 years? §63.10(b)(1)   | <input type="checkbox"/> Y <input type="checkbox"/> N                              |

**II. Visual Inspection**

- |  |   |
|--|---|
| 1. Is a temperature monitoring device present in the firebox, or is an approved alternative monitor present and operating? | <input type="checkbox"/> Y <input type="checkbox"/> N |
|--|---|







**Table 7-8. Compliance Checklist for a Regenerative Carbon Adsorber**

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

Carbon Adsorber Identification: \_\_\_\_\_

---

**I. Review of Records**


---

1. Does the facility maintain the initial compliance records in (a) or (b):
    - (a) Both of the following records of performance tests:
      - Either the percent reduction or outlet concentration of organic HAP or TOC? §63.998(a)(2)(ii)(C)(5)  Y  N/A  N
      - Either the concentration of organic HAP or TOC at the outlet of the carbon adsorber averaged over the full period of the performance test, or all of the following during the period of each performance test: (1) the total regeneration stream mass or volumetric flow during each regeneration, (2) the temperature of the carbon bed after each regeneration, and (3) the temperature of the carbon bed within 15 minutes after the completion of each cooling cycle? §63.998(a)(2)(ii)(C)(3) and (4)  Y  N/A  N
    - (b) Documentation of the design evaluation in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N
 

*Note: A design evaluation may be conducted as an alternative to a performance test if the carbon adsorber is a small control device. §63.8000(d)(2)*
  2. Do records document that the facility meets one of the following monitoring requirements for the carbon adsorber:  Y  N
    - (a) Monitors the total regeneration stream mass or volumetric flow for each regeneration cycle, the temperature of the carbon bed after each regeneration, and the temperature of the carbon bed within 15 minutes after the completion of the regeneration cooling cycle? §63.990(c)(3)
    - (b) Uses an “organic monitoring device” to continuously monitor a parameter that provides an indication of the organic concentration at the outlet of the carbon adsorber? §63.990(c) introductory paragraph
    - (c) Has documentation that they requested and received approval to conduct an alternative to continuous monitoring or to monitor an alternative parameter(s)? §63.996(d)
-

Table 7-8. (continued)

---

**I. Review of Records**


---

3. For the monitored parameters, has the facility:
- (a) Established a site-specific operating range for each monitored parameter?  Y  N/A  N  
§63.996(c)(6)
- (b) Followed manufacturer's or other written specifications or recommendations for installation, operation, and calibration of the monitoring equipment?  Y  N/A  N  
§63.996(c)(1) and (3)
- (c) Maintained records of the following monitored parameters for each regeneration cycle, if complying with monitoring identified in item 2(a) of this checklist: §63.998(c)(3)(ii)
- Total regeneration stream mass or volumetric flow?  Y  N/A  N
  - Temperature of the carbon bed after each regeneration?  Y  N/A  N
  - Temperature of the carbon bed within 15 minutes of completing any cooling cycle?  Y  N/A  N
- (d) Maintained records of the periods of operation when a monitored parameter was outside its established range and the cause of these deviations?  Y  N/A  N  
§§63.998(c)(3)(iii) and 63.998(d)(5)
4. If the facility received approval to monitor an alternative parameter, are they performing the recordkeeping approved by the Administrator?  Y  N/A  N  
§§63.999(d)(1) and (2), 63.8(f), and 63.10(b)(2)(vii)
5. For any CPMS, does the facility have records of all of the following: §63.998(c)(1)(i) and (ii)
- (a) The procedure used for calibrating the CPMS?  Y  N/A  N
- (b) The date and time of completion of calibration and preventive maintenance of the CPMS?  Y  N/A  N
- (c) The "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
- (d) The start time and duration (or start and stop times) of any periods when the CPMS is inoperative?  Y  N/A  N
- (e) The occurrence and duration of each startup, shutdown, and malfunction of the CPMS during which excess emissions occur?  Y  N/A  N
- (f) Documentation of whether procedures specified in the source's startup, shutdown, and malfunction plan were followed for each startup, shutdown, and malfunction during which excess emissions occurred?  Y  N/A  N
- (g) Documentation of each startup, shutdown, and malfunction event?  Y  N/A  N
- (h) Documentation that there were no excess emissions during each startup, shutdown, or malfunction event, as applicable?  Y  N/A  N
-



**Table 7-9. Compliance Checklist for an Absorber**

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

Absorber Identification: \_\_\_\_\_

---

**I. Review of Records**


---

1. Does the facility maintain the initial compliance records in (a) or (b):
  - (a) The following records of performance tests:
    - Either the percent reduction or outlet concentration of organic HAP or TOC? §63.998(a)(2)(ii)(C)(5)  Y  N/A  N
    - Either the concentration of organic HAP or TOC at the outlet of the absorber averaged over the full period of the performance test, or both the temperature and specific gravity of the exiting scrubber liquid averaged over the full period of the performance test? §63.998(a)(2)(ii)(C)(1) and (4)  Y  N/A  N
  - (b) Documentation of the design evaluation in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N
 

*Note: A design evaluation may be conducted as an alternative to a performance test if the absorber is a small control device. §63.8000(d)(2)*
2. Do records document that the facility meets one of the following monitoring requirements for the absorber:  Y  N
  - (a) Continuously monitors the temperature and specific gravity of the scrubbing liquid exiting the absorber? §63.990(c)(1)
  - (b) Uses an “organic monitoring device” to continuously monitor a parameter that provides an indication of the organic concentration at the outlet of the absorber? §63.990(c)(1)
  - (c) Has documentation that they requested and received approval to conduct an alternative to continuous monitoring or to monitor an alternative parameter(s)? §63.996(d)
3. For each continuously monitored parameter, has the facility:
  - (a) Established a site-specific operating range for the parameter? §63.996(c)(6)  Y  N/A  N
  - (b) Followed manufacturer’s or other written specifications or recommendations for installation, operation, and calibration of the monitoring equipment? §63.996(c)(1) and (3)  Y  N/A  N

---

Table 7-9. (continued)

## I. Review of Records

- (c) Maintained records of the monitoring data in one of the following formats: §63.998(b)(1)  Y  N/A  N
- All measured values, or
  - All block average values for 15-minute or shorter periods calculated from all measured data values during each period (or from at least one measured data value per minute if measured more frequently than once per minute), or
  - All continuous records for only the most recent 3 valid hours of records, and block hourly average values for earlier data?
- Note: To use the third option, the data must be collected from an automated CPMS, and the hourly averages must include periods of CPMS breakdown and malfunction (§63.998(b)(1)(iii)).*
- (d) Maintained records of either daily average values or a statement that all values were within the established operating range? §63.998(b)(3)  Y  N/A  N
- Note: If the daily average value is not calculated and recorded, then continuous or short-term block averages may not be discarded as otherwise allowed by the third option in item “c” above. §63.998(b)(3)(ii)*
- Note: Averages may be over an operating block if the absorber is used to control emissions from process vessel vents and the owner or operator has established separate operating limits for different emission episodes. §63.8005(f)*
- Note: Daily (or operating block) averages must be reported in the compliance reports for all days when an excursion occurred. An excursion is either a daily average value outside the established range or a day for which insufficient monitoring data were collected. §63.999(c)(6)*
- (e) As an alternative to “c” and “d” above when the conditions for alternative recordkeeping in §63.998(b)(5)(i)(A) through (F) are met, does the facility meet both of the following requirements:
- Note: This alternative is not allowed if the absorber is used only for storage tanks. §63.998(b)(5) introductory paragraph*
- Document in their notification of compliance status report or a compliance report that they were implementing this alternative?  Y  N/A  N
  - Retain only the daily average?  Y  N/A  N
- Note: No record of the daily average is required if 6 months have passed without an excursion. §63.998(d)(5)(ii)*

Table 7-9. (continued)

**I. Review of Records**

- |  |  |
|--|--|
| (f) Maintained records of both the periods of operation when the daily average of any continuously monitored parameter was outside its established range and the cause of these deviations? §§63.998(c)(3)(iii) and 63.998(d)(5) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 4. If the facility received approval to monitor an alternative parameter, are they performing the recordkeeping approved by the Administrator? §§63.999(d)(1) and (2), 63.8(f), and 63.10(b)(2)(vii)                             | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 5. For any CPMS, does the facility have records of all of the following: §63.998(c)(1)(i) and (ii)   |  |
| (a) The procedure used for calibrating the CPMS?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) The date and time of completion of calibration and preventive maintenance of the CPMS?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) The “as found” and “as left” CPMS readings, whenever an adjustment is made that affects the CPMS reading and a “no adjustment” statement otherwise?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) The start time and duration (or start and stop times) of any periods when the CPMS is inoperative?   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (e) The occurrence and duration of each startup, shutdown, and malfunction of the CPMS during which excess emissions occur?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (f) Documentation of whether procedures specified in the source’s startup, shutdown, and malfunction plan were followed for each startup, shutdown, and malfunction during which excess emissions occurred?                      | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (g) Documentation of each startup, shutdown, and malfunction event?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (h) Documentation that there were no excess emissions during each startup, shutdown, or malfunction event, as applicable?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (i) The total duration of operating time during the reporting period?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 6. Are all required records kept for at least 5 years? §63.10(b)(1)  | <input type="checkbox"/> Y <input type="checkbox"/> N                              |

**II. Visual Inspection**

- |   |  |
|---|--|
| 1. Are any one of the following monitoring devices present and operating:   |  |
| (a) Temperature and specific gravity monitoring devices in the scrubbing fluid exit line (if complying with §63.990(c)(1))? | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) An organic monitoring device at the outlet of the absorber (if complying with §63.990(c)(1))?                           | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) Any other approved monitoring device (if complying with §63.996(d))?  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |





**Table 7-10. Compliance Checklist for a Condenser**

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

Condenser Identification: \_\_\_\_\_

---

**I. Review of Records**


---

1. Does the facility maintain the initial compliance records in (a) or (b):

*Note: This information is not required when complying with the specified temperature option in Table 1 to subpart HHHHH.*

- (a) The following records of performance tests:

- Either the percent reduction or outlet concentration of organic HAP or TOC? §63.998(a)(2)(ii)(C)(5)  Y  N/A  N
- Either the concentration of organic HAP or TOC at the outlet of the condenser averaged over the full period of the performance test, or the exit (product side) temperature averaged over the full period of the performance test? §63.998(a)(2)(ii)(C)(2) and (4)  Y  N/A  N

- (b) Documentation of the design evaluation in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N

*Note: A design evaluation may be conducted as an alternative to a performance test if the condenser is a small control device. §63.8000(d)(2)*

- (c) Calculations of the controlled emissions and corresponding percent reduction in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N

*Note: This option only applies if the only emissions routed to the condenser are from process vessel vents. §63.8005(d)(2)*

2. Do records document that the facility meets one of the following monitoring requirements for the condenser:  Y  N

- (a) Continuously monitors the product side exit temperature of the condenser, or §63.990(c)(2)
  - (b) Uses an “organic monitoring device” to continuously monitor a parameter that provides an indication of the organic concentration at the outlet of the condenser, or §63.990(c)(2)
  - (c) Has documentation that they requested and received approval to conduct an alternative to continuous monitoring or to monitor an alternative parameter(s)? §63.996(d)
-

Table 7-10. (continued)

## I. Review of Records

3. For each continuously monitored parameter, has the facility:
- (a) Established a site-specific operating range for the parameter?  Y  N/A  N  
 §63.996(c)(6)
- (b) Followed manufacturer's or other written specifications or recommendations for installation, operation, and calibration of the monitoring equipment?  Y  N/A  N  
 §63.996(c)(1) and (3)
- (c) Maintained records of the monitoring data in one of the following formats:  Y  N/A  N  
 §63.998(b)(1)
- All measured values, or
  - All block average values for 15-minute or shorter periods calculated from all measured data values during each period (or from at least one measured data value per minute if measured more frequently than once per minute), or
  - All continuous records for only the most recent 3 valid hours of records, and block hourly average values for earlier data?
- Note: To use the third option, the data must be collected from an automated CPMS, and the hourly averages must include periods of CPMS breakdown and malfunction (§63.998(b)(1)(iii)).*
- (d) Maintained records of either daily average values or a statement that all values were within the established operating range?  Y  N/A  N  
 §63.998(b)(3)
- Note: If the daily average value is not calculated and recorded, then continuous or short-term block averages may not be discarded as otherwise allowed by the third option in item "c" above.  
 §63.998(b)(3)(ii)*
- Note: Averages may be over an operating block if the condenser is used to control emissions from process vessel vents and the owner or operator establishes separate operating limits for different emission episodes.  
 §63.8005(f)*
- Note: Daily (or operating block) averages must be reported in the compliance reports for all days when an excursion occurred. An excursion is either a daily average value outside the established range or a day for which insufficient monitoring data were collected.  
 §63.999(c)(6)*
- (e) As an alternative to "c" and "d" above when the conditions for alternative recordkeeping in §63.998(b)(5)(i)(A) through (F) are met, does the facility meet both of the following requirements:
- Note: This alternative is not allowed if the condenser is used only for storage tanks. §63.998(b)(5) introductory paragraph*

Table 7-10. (continued)

**I. Review of Records**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Document in their notification of compliance status report or a compliance report that they were implementing this alternative?</li> <li>• Retain only the daily average?</li> </ul> <p><i>Note: No record of the daily average is required if 6 months have passed without an excursion. §63.998(d)(5)(ii)</i></p> | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <p>(f) Maintained records of both the periods of operation when the daily average of any continuously monitored parameter was outside its established range and the cause of these deviations? §63.998(c)(3)(iii) and 63.998(d)(5)</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>4. If the facility received approval to monitor an alternative parameter, are they performing the recordkeeping approved by the Administrator? §63.999(d)(1) and (2), 63.8(f), and 63.10(b)(2)(vii)</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>5. For any CPMS, does the facility have records of all of the following: §63.998(c)(1)(i) and (ii)</p>  |  |
| <p>(a) The procedure used for calibrating the CPMS?</p>  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(b) The date and time of completion of calibration and preventive maintenance of the CPMS?</p>  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(c) The “as found” and “as left” CPMS readings, whenever an adjustment is made that affects the CPMS reading and a “no adjustment” statement otherwise?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(d) The start time and duration (or start and stop times) of any periods when the CPMS is inoperative?</p>  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(e) The occurrence and duration of each startup, shutdown, and malfunction of the CPMS during which excess emissions occur?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(f) Documentation of whether procedures specified in the source’s startup, shutdown, and malfunction plan were followed for each startup, shutdown, and malfunction during which excess emissions occurred?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(g) Documentation of each startup, shutdown, and malfunction event?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(h) Documentation that there were no excess emissions during each startup, shutdown, or malfunction event, as applicable?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(i) The total duration of operating time during the reporting period?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>6. Are all required records kept for at least 5 years? §63.10(b)(1)</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N  |





**Table 7-12. Compliance Checklist for a Scrubber**

Note: Use this checklist for scrubbers that control halogen atoms in halogenated vent streams prior to a combustion device or control hydrogen halide and halogen emissions that are generated by combusting a halogenated vent stream. A “yes” response to a question indicates compliance with that requirement, and a “no” response indicates noncompliance with the requirement. If a requirement is not applicable, check the “N/A” box.

Scrubber Identification: \_\_\_\_\_

---

**I. Review of Records**


---

1. Does the facility maintain the initial compliance records in (a) or (b):

(a) Either of the following records of performance tests:

- If the scrubber is used before a combustion device to reduce the halogen atom mass emission rate, a record of the halogen concentration prior to the combustion device? §§63.994(b)(2) and 63.998(a)(4)  Y  N/A  N
- If the scrubber is used to control hydrogen halide and halogen emissions from process vents or after a combustion device, all of the following records: §63.998(a)(2)(ii)(D)
  - ▶ The resulting percent reduction, mass emission rate, or outlet concentration?  Y  N/A  N
  - ▶ The pH or caustic strength of the scrubber effluent averaged over the time period of the performance test?  Y  N/A  N
  - ▶ The scrubber liquid-to-gas ratio averaged over the time period of the performance test?  Y  N/A  N

(b) Documentation of the design evaluation in the notification of compliance status report? §63.8075(d)(2)(ii)  Y  N/A  N

*Note: A performance test is required if the scrubber is used to control hydrogen halide and halogen emissions after a combustion unit that controls halogenated vent streams, and the scrubber is a large control device as defined in §63.8105(g). Either a design evaluation or performance test is required in all other situations. §§63.994(b)(1), 63.8000(c)(3) and (d)(2)*

2. Do records document that the facility meets one of the following monitoring requirements for the scrubber:  Y  N

(a) Monitors all of the following parameters:

- Continuously monitors either the pH or the caustic strength of the scrubber effluent? §§63.994(c)(1)(i) and 63.8000(d)(5)(iii)
  - Continuously monitors the flow of the scrubber liquid influent? §63.994(c)(1)(ii)
-

Table 7-12. (continued)

## I. Review of Records

- 
- Has measured or otherwise determined the inlet gas flow?  
§63.994(c)(1)(iii)
- (b) Has documentation that they requested and received approval to conduct an alternative to continuous monitoring or to monitor an alternative parameter(s)? §63.996(d)
3. For each continuously monitored parameter, has the facility:
- (a) Established a site-specific operating range for the parameter?  Y  N/A  N  
§63.996(c)(6)
- (b) Followed manufacturer's or other written specifications or recommendations for installation, operation, and calibration of the monitoring equipment? §63.996(c)(1) and (3)  Y  N/A  N
- (c) Maintained records of the monitoring data in one of the following formats: §63.998(b)(1)  Y  N/A  N
- All measured values, or
  - All block average values for 15-minute or shorter periods calculated from all measured data values during each period (or from at least one measured data value per minute if measured more frequently than once per minute), or
  - All continuous records for only the most recent 3 valid hours of records, and block hourly average values for earlier data?
- Note: To use the third option, the data must be collected from an automated CPMS, and the hourly averages must include periods of CPMS breakdown and malfunction (§63.998(b)(1)(iii)).*
- (d) Maintained records of either daily average values or a statement that all values were within the established operating range? §63.998(b)(3)  Y  N/A  N
- Note: If the daily average value is not calculated and recorded, then continuous or short-term block averages may not be discarded as otherwise allowed by the third option in item "c" above.*  
§63.998(b)(3)(ii)
- Note: Daily averages must be reported in the compliance reports for all days when an excursion occurred. An excursion is either a daily average value outside the established range or a day for which insufficient monitoring data were collected.* §63.999(c)(6)
- (e) As an alternative to "c" and "d" above when the conditions for alternative recordkeeping in §63.998(b)(5)(i)(A) through (F) are met, does the facility meet both of the following requirements:
- Note: This alternative is allowed if the scrubber is used only for process vessel vent and transfer racks, not storage tanks.* §63.998(b)(5) introductory paragraph
-

Table 7-12. (continued)

**I. Review of Records**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Document in their notification of compliance status report or a compliance report that they were implementing this alternative?</li> <li>• Retain only the daily average?</li> </ul> <p><i>Note: No record of the daily average is required if 6 months have passed without an excursion. §63.998(d)(5)(ii)</i></p> | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N<br><input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| <p>(f) Maintained records of both the periods of operation when the daily average of any continuously monitored parameter was outside its established range and the cause of these deviations? §63.998(c)(3)(iii) and 63.998(d)(5)</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>4. If the facility received approval to monitor an alternative parameter, are they performing the recordkeeping approved by the Administrator? §63.999(d)(1) and (2), 63.8(f), and 63.10(b)(2)(vii)</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>5. For any CPMS, does the facility have records of all of the following: §63.998(c)(1)(i) and (ii)</p>  |  |
| <p>(a) The procedure used for calibrating the CPMS?</p>  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(b) The date and time of completion of calibration and preventive maintenance of the CPMS?</p>  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(c) The “as found” and “as left” CPMS readings, whenever an adjustment is made that affects the CPMS reading and a “no adjustment” statement otherwise?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(d) The start time and duration (or start and stop times) of any periods when the CPMS is inoperative?</p>  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(e) The occurrence and duration of each startup, shutdown, and malfunction of the CPMS during which excess emissions occur?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(f) Documentation of whether procedures specified in the source’s startup, shutdown, and malfunction plan were followed for each startup, shutdown, and malfunction during which excess emissions occurred?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(g) Documentation of each startup, shutdown, and malfunction event?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(h) Documentation that there were no excess emissions during each startup, shutdown, or malfunction event, as applicable?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>(i) The total duration of operating time during the reporting period?</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N   |
| <p>6. Are all required records kept for at least 5 years? §63.10(b)(1)</p>   | <input type="checkbox"/> Y <input type="checkbox"/> N  |





*[This page intentionally left blank.]*

**Section 8**  
**Reporting Requirements**

*[This page intentionally left blank.]*

**Table 8-1. Inspection Checklist for Notification of Compliance Status Report**

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 the question is not applicable, check the “N/A” box.

---

**I. Review of Records**


---

- |  |  |
|--|--|
| 1. Does the report include the results of all applicability determinations (e.g., HAP content of coating products, halogenated vent stream determinations, Group 1 or Group 2 determinations, and determinations of equipment in organic HAP service)? §63.8075(d)(2)(i)                 | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 2. Does the report include all of the following information related to initial compliance determinations, as applicable:   |  |
| (a) Emissions profiles and descriptions of worst-case operating and/or testing conditions when a performance test is conducted for a control device that is used to comply with an emission limit for process vessel vents? §63.8075(d)(2)(ii), 63.8005(d)(1), and 63.1257(b)(8)         | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) Performance test reports, including site-specific operating limits and supporting data and calculation records? §63.8075(d)(2)(ii) and (iii) and 63.999(a)(2) and (3)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) Flare compliance assessments? §63.8075(d)(2)(ii) and 63.999(a)(2)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) Design evaluations, including site-specific operating limits? §63.8075(d)(2)(ii) and (iii) and 63.999(b)(2)(i) through (iv)  | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (e) Any calculations used to demonstrate initial compliance (e.g., calculations of uncontrolled and controlled emissions if complying with emissions averaging for process vessel vents)? §63.8075(d)(2)(ii)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| 3. Does the report include descriptions of monitoring devices and monitoring frequencies? §63.8075(d)(2)(iii)  |  |
| 4. If complying with subpart UU for equipment leaks, does the report include all of the following information about equipment leaks:   |  |
| <i>Note: If complying with subpart TT, some of this information must be included in the initial compliance report, as indicated in Table 8-2.</i>  |  |
| (a) Identification of the affected facility? §63.1039(a)(1)(i)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (b) Number of each equipment type, excluding equipment in vacuum service? §63.1039(a)(1)(ii)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (c) Method of compliance with the standards? §63.1039(a)(1)(iii)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (d) If the method of compliance is pressure testing, the products or product codes and the planned schedule for pressure testing? §63.1039(a)(2)   | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
| (e) If the method of compliance is to enclose the affected facility, identification of the affected facility, a description of the system used to create a negative pressure in the enclosure, and a description of the control device to which the emissions are routed? §63.1039(a)(3) | <input type="checkbox"/> Y <input type="checkbox"/> N/A <input type="checkbox"/> N |
-

**Table 8-1. (continued)**

**I. Review of Records**

5. If complying with subpart R for equipment leaks, does the report include the types, identification numbers, and location of all equipment in organic HAP service? §§63.428(f) and 63.8015(b)(2)  Y  N/A  N
6. Does the report identify the following equipment and related information, if applicable:
- (a) Parts of the affected source that are subject to other rules and the authority under which the facility will comply for such equipment? §63.8075(d)(2)(iv)  Y  N/A  N
- Note: Section 63.8090 identifies other rules that may overlap with subpart HHHHH and the applicable compliance options.*
- (b) Storage tanks that comply with the vapor balancing option in §63.8010(e)? §63.8075(d)(2)(v)  Y  N/A  N
- (c) The following information if Group 1 wastewater is sent offsite for treatment: §63.8075(d)(2)(vi)
- Name and location of the offsite treatment facility?  Y  N/A  N
  - Description of the wastewater sent for treatment?  Y  N/A  N
  - If treatment is in an enhanced biological treatment unit, the certification from the offsite facility that they will comply with the requirements of subpart HHHHH?  Y  N/A  N
7. Has a responsible official of the affected source signed the report, certified its accuracy, and attested to whether the source has complied with the requirements in subpart FFFF? §63.9(h)(2)(i) introductory text  Y  N

**II. Note All Deficiencies**

---



---



---



---



---



---



---



---



---



---



---

**Table 8-2. Inspection Checklist for Compliance Reports**

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 the question is not applicable, check the “N/A” box.

---

**I. Review of Records**


---

1. Do compliance reports include all of the following general information:
  - (a) Company name and address? §63.8075(e)(1)  Y  N
  - (b) Date of the report, and beginning and ending dates of the reporting period? §63.8075(e)(3)  Y  N
  - (c) Name, title, and signature by a responsible official of the company certifying the accuracy of the report? §63.8075(e)(2)  Y  N
2. If excess emissions occurred (e.g., a daily average operating parameter exceeded an operating limit) with any startup, shutdown, and/or malfunction during a reporting period, does the compliance report for that period include the following records: §63.8075(e)(5)
  - (a) That procedures in the facility’s SSMP were followed, or documentation of actions taken that were inconsistent with the SSMP?  Y  N/A  N
  - (b) A brief description of each malfunction?  Y  N/A  N
3. If there were no deviations from any emission limit, operating limit, or work practice standard during a reporting period, does the compliance report for that period include a statement documenting the absence of any such deviations? §63.8075(e)(6)(i)  Y  N/A  N
4. If a reporting period included deviations from any emission limits, operating limits, and/or work practice standards where ongoing compliance is not demonstrated by using a CMS, does the compliance report for the period include the following information: §63.8075(e)(6)(ii)
  - (a) The total operating time of the affected source during the reporting period?  Y  N/A  N
  - (b) The total number of deviations?  Y  N/A  N
  - (c) The total duration of deviations?  Y  N/A  N
  - (d) The cause(s) of deviations (including unknown cause, if applicable)?  Y  N/A  N
  - (e) The corrective action(s) taken?  Y  N/A  N
  - (f) Operating logs for the day(s) during which the deviation occurred?  Y  N/A  N

*Note: Operating logs are not required for deviations of the work practice standards for equipment leaks.*

---

Table 8-2. (continued)

## I. Review of Records

- 
5. If a reporting period included any deviations from an emission limit or operating limit where a CMS is used to demonstrate ongoing compliance, does the compliance report for that period include the following information for the days when the deviations occurred (e.g., daily average of the monitored parameter does not meet the operating limit, or data availability requirements are not met): §§63.8075(e)(6)(iii) and 63.999(c)(6)(i)
- (a) Date and time each CMS was inoperative (except for zero [low-level] and high level checks)?  Y  N/A  N
- (b) For a CEMS, the date, time, and duration that the CEMS was out of control, and corrective actions taken?  Y  N/A  N
- (c) Date and time that each deviation started and stopped, and indication of whether the deviation occurred during a period of SSM?  Y  N/A  N
- (d) Identification of each HAP known to be in the emission stream or wastewater stream?  Y  N/A  N
- (e) Identification of the CMS?  Y  N/A  N
- (f) Description of the product being produced?  Y  N/A  N
- (g) Date of the most recent CMS certification or audit?  Y  N/A  N
- (h) Operating day averages of the operating parameter (or pollutant concentration)?  Y  N/A  N
- (i) Summary statistics regarding the total duration and causes for all deviations from emission limits and operating limits?  Y  N/A  N
- (j) Summary of the total duration of CMS downtime during the reporting period, and calculation of the total duration as a percentage of the total operating time for the affected source during the reporting period?  Y  N/A  N
6. For each CEMS that was never out of control during a reporting period, does the compliance report for that period include a statement documenting this result? §63.8075(e)(7)  Y  N/A  N
7. If a flare is used to comply with an emission limit in subpart HHHHH, does the compliance report include records of periods when all pilot flames were absent or the flare flame was absent? §63.999(c)(3)  Y  N/A  N
8. If a carbon adsorber is used to comply with an emission limit in subpart HHHHH, does the compliance report document all carbon bed regeneration cycles during which a monitored parameter (e.g., regeneration stream flow or carbon bed temperature) did not meet an applicable operating limit? §63.999(c)(6)(ii)  Y  N/A  N
-



Table 8-2. (continued)

**I. Review of Records**

- 
9. If a closed-vent system is required to route emissions to a control device, does the compliance report include the following information about the closed-vent system: §63.999(c)(2)
- (a) The following records when a leak is detected:
- Identification information of the leaking closed-vent system?  Y  N/A  N
  - Name, initials, or identification number of operator conducting the inspection?  Y  N/A  N
  - Instrument identification number, if instrument monitoring applies?  Y  N/A  N
  - Date the leak was detected?  Y  N/A  N
  - Date of the first attempt to repair the leak?  Y  N/A  N
  - Maximum instrument reading after the leak is repaired or determined to be non-repairable?  Y  N/A  N
  - Explanation of delay in repair, if the leak was not repaired within 15 days after it was discovered?  Y  N/A  N
  - Date of successful repair of the leak?  Y  N/A  N
- (b) The times when a vent stream is diverted from the control device through a bypass line?  Y  N/A  N
- (c) The times when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out?  Y  N/A  N
10. If complying with the equipment leak requirements in §§63.424 and 63.428 of subpart R, does the compliance report include the following information for each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection: §63.424(h)(4) as referenced from Table 3 to subpart HHHHH
- (a) The date the leak was detected?  Y  N/A  N
- (b) The date of each attempt to repair the leak?  Y  N/A  N
- (c) The reasons for the delay of repair?  Y  N/A  N
- (d) The date of successful repair?  Y  N/A  N
11. If complying with the equipment leak requirements in subpart TT, does the initial compliance report include the following information: §63.1018(a)(1)
- (a) Identification of the affected facility?  Y  N/A  N
- (b) Number of valves subject to leak detection and repair requirements (excluding valves designated for no detectable emissions)?  Y  N/A  N
-

Table 8-2. (continued)

**I. Review of Records**

- |     |   |                            |                              |                            |
|-----|---|----------------------------|------------------------------|----------------------------|
| (c) | Number of pumps subject to leak detection and repair requirements (excluding pumps designated for no detectable emissions and pumps for which leaks are routed through a closed-vent system to a control device)?                   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (d) | Number of compressors subject to leak detection and repair requirements (excluding compressors designated for no detectable emissions and compressors for which leaks are routed through a closed-vent system to a control device)? | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
12. If complying with the equipment leak requirements in subpart TT, do all compliance reports include the following information: §63.1018(a)(2)
- |     |  |                            |                              |                            |
|-----|--|----------------------------|------------------------------|----------------------------|
| (a) | Affected facility identification?  | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (b) | All of the following information for each month in the reporting period:   |                            |                              |                            |
|     | • Number of valves for which leaks were detected?  | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Number of valves for which leaks were not repaired?  | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Number of pumps for which leaks were detected?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Number of pumps for which leaks were not repaired?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Number of compressors for which leaks were detected?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Number of compressors for which leaks were not repaired?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Explanation of each delay of repair and, if applicable, why the repair was technically infeasible without a shutdown of the affected facility? | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (c) | Dates of any shutdown of the affected facility that occurred during the reporting period?  | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
13. If complying with the equipment leak requirements in subpart UU, does the compliance report include the following information:
- |     |   |                            |                              |                            |
|-----|---|----------------------------|------------------------------|----------------------------|
| (a) | A summary of the following data for valves in gas and vapor service and light liquid service, pumps in light liquid service, connectors in gas and vapor service and light liquid service, agitators in gas and vapor service and light liquid service, and compressors: §63.1039(b)(1) |                            |                              |                            |
|     | • Number of each type of component for which leaks were detected?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • The percent leakers for valves, pumps, and connectors?  | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Total number of components monitored?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • Number of leaking components that were not repaired?  | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
|     | • The number of valves and connectors determined to be nonrepairable?   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (b) | Documentation of the occurrence and number of times delay of repair has been used? §63.1039(b)(2)   | <input type="checkbox"/> Y | <input type="checkbox"/> N/A | <input type="checkbox"/> N |
| (c) | The following records of any valve subgroups: §63.1039(b)(3)  |                            |                              |                            |

Table 8-2. (continued)

**I. Review of Records**

• The valves assigned to each subgroup?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Monitoring results and calculations made for each subgroup for each monitoring period?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Identification of any valves that have been reassigned from one subgroup to another during the reporting period, and the date of such reassignments?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Results of the semiannual overall performance calculation?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(d) For pressure relief devices and compressors operating with an instrument reading less than 500 ppm above background, results of all monitoring conducted during the reporting period to show compliance? §63.1039(b)(4)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(e) Documentation of the initiation of a monthly monitoring program for valves, if applicable? §63.1039(b)(5)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(f) Documentation of the initiation of a quality improvement program for pumps, if applicable? §63.1039(b)(6)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(g) If compliance is demonstrated by pressure testing, records of the following: §63.1039(b)(7)			
• Process equipment train identification?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• The number of pressure tests conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• The number of pressure tests where the equipment train failed the pressure test?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
• Explanation for any delay of repair?	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
14. If a floating roof is used to meet the emission limit for a storage tank, does each compliance report include the following information:			
(a) Notification at least 30 days before a planned inspection (7 days if the inspection is unplanned or the owner or operator could not have known about it 30 days in advance)? §63.1066(b)(1)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(b) Records of inspection results when failures are identified (i.e., storage tank identification, date of inspection, description of failure, description of repairs and the dates they were made, and date storage tank is removed from service, if applicable)? §63.1066(b)(2)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(c) Any request to use an alternate control device? §63.1066(b)(3)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N
(d) Any request for extension to conduct inspection of a floating roof determined to be unsafe to inspect or for an extension for repair if repair could not be completed or the vessel emptied within 45 days after a failed inspection? §63.1066(b)(4)	<input type="checkbox"/> Y	<input type="checkbox"/> N/A	<input type="checkbox"/> N

Table 8-2. (continued)

**I. Review of Records**

15. If emissions from a storage tank are routed to a control device, does each compliance report include all of the following information related to periods of planned routine maintenance:
- (a) All of the following records of periods of planned routine maintenance during the reporting period: §63.999(c)(4)(i)
- The time of day and date when each period of planned routine maintenance started?  Y  N/A  N
  - The time of day and date when each period of planned routine maintenance ends?  Y  N/A  N
  - Description of the type of maintenance performed?  Y  N/A  N
- (b) Total number of hours in the current and preceding reporting periods when the control device was not operating due to planned routine maintenance? §63.999(c)(4)(ii)  Y  N/A  N
- (c) A description of the planned routine maintenance for the next reporting period (i.e., the type of maintenance to be performed, the expected frequency of the maintenance, and the expected length of the maintenance periods)? §63.999(c)(4)(iii)  Y  N/A  N
16. If the facility sends Group 1 wastewater to an onsite enhanced biological treatment unit, is the facility complying with approved reporting requirements? §63.8020(c)  Y  N/A  N
- Note: The approved reporting requirements should be consistent with reporting procedures described in the precompliance report or follow-up documentation. See the checklist in Table 5-1 for example monitoring parameters.*
17. If the facility invokes the delay of repair provisions for heat exchange system leaks, is the following information included in the next compliance report: §63.104(f)(2) as referenced from §63.8075(e)(4)
- (a) Identification of the leak?  Y  N/A  N
- (b) The date the leak was detected?  Y  N/A  N
- (c) Whether or not the leak has been repaired?  Y  N/A  N
- (d) Reason(s) for the delay of repair?  Y  N/A  N
- (e) Documentation of emissions estimates, if repair was delayed because emissions from shutdown could be greater than emissions likely to result from delaying repair?  Y  N/A  N
- (f) Either the expected date of repair (if the leak remains unrepaired) or the date the leak was successfully repaired?  Y  N/A  N

