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United States  
Environmental Protection  
Agency

EPA-305-B-06-003  
September 2006

# **Implementation Tool for the Miscellaneous Coating Manufacturing NESHAP Table of Contents Section 1 Section 2**

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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.

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## **Section 1**

### **Applicability and Compliance Dates**

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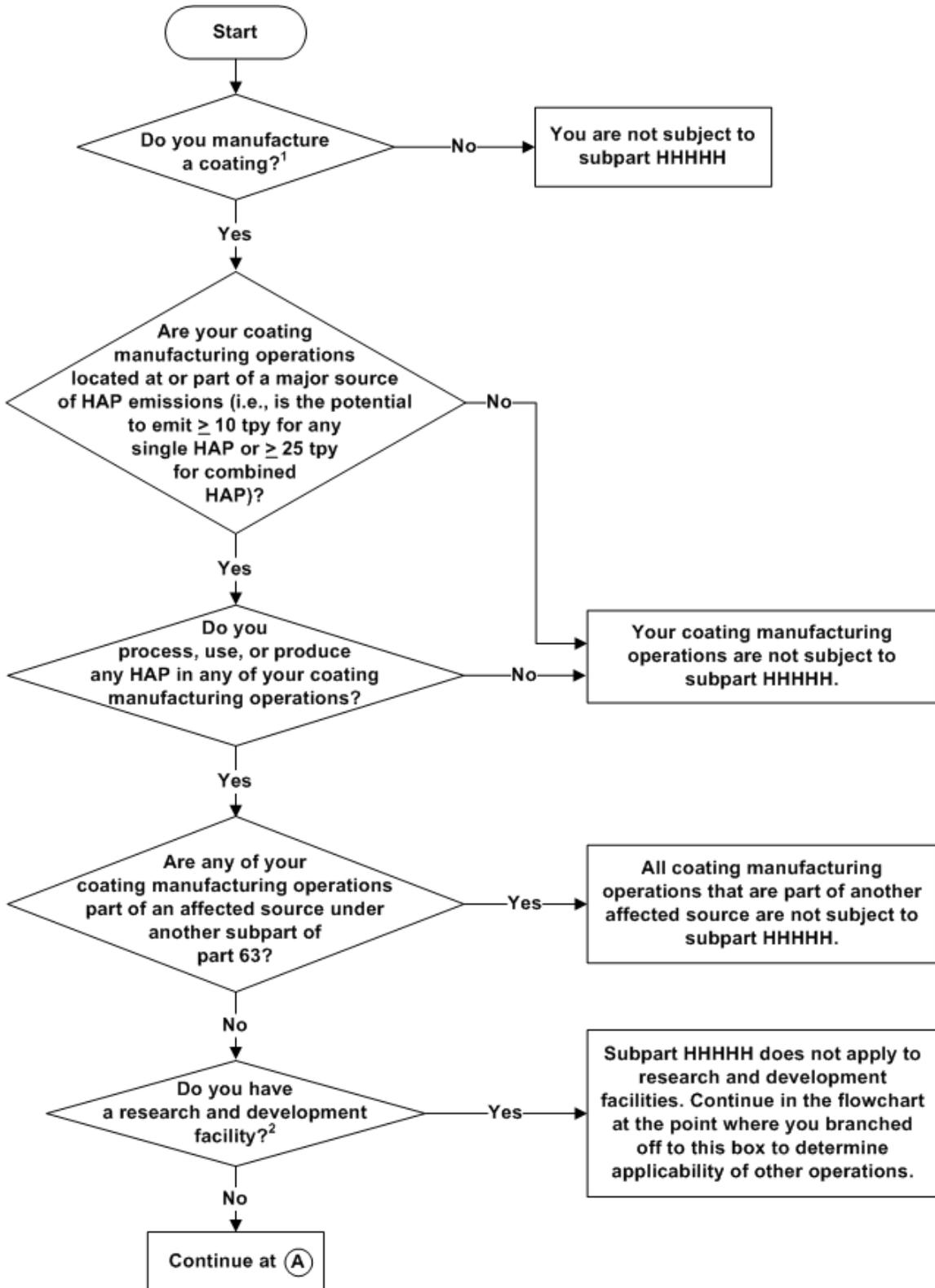


Figure 1-1. Applicability of subpart HHHHH.

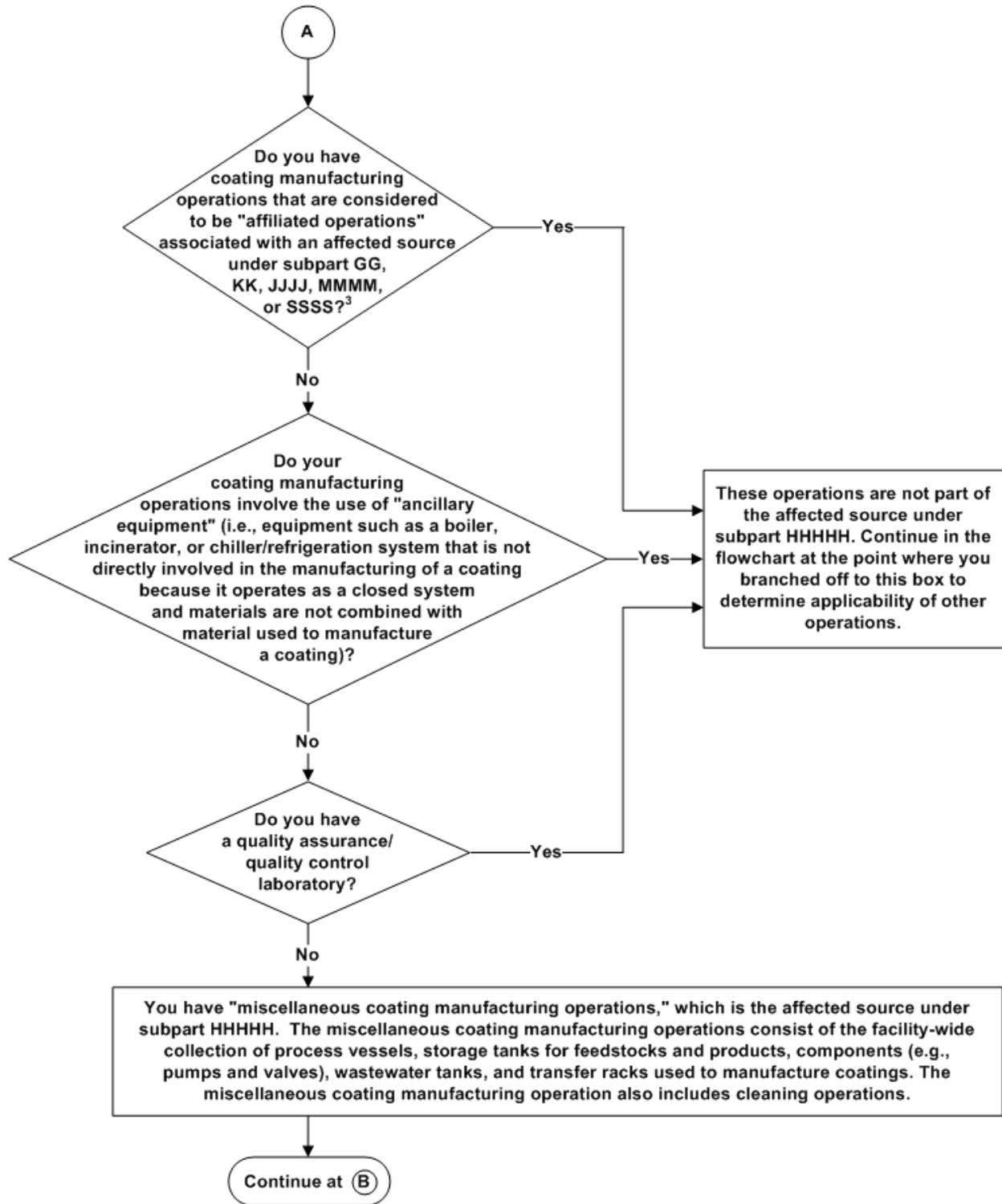
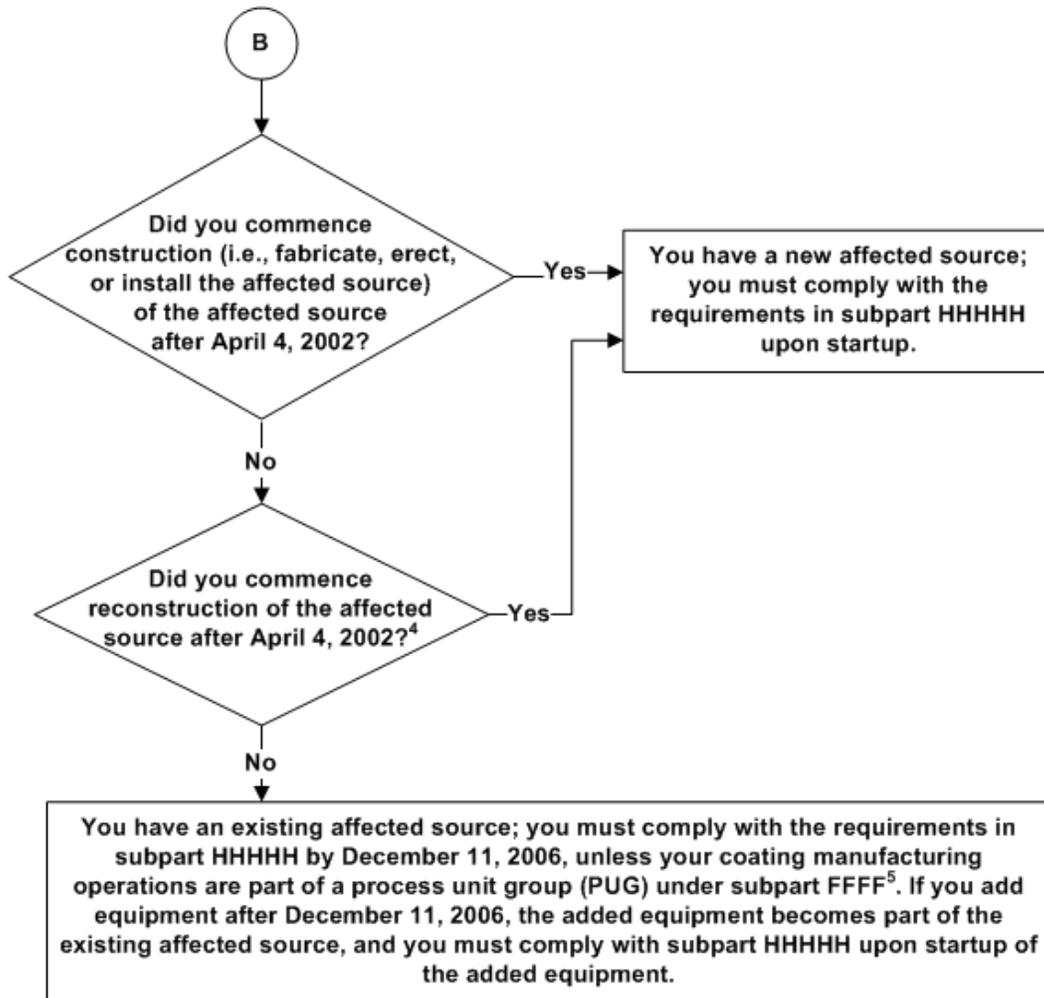


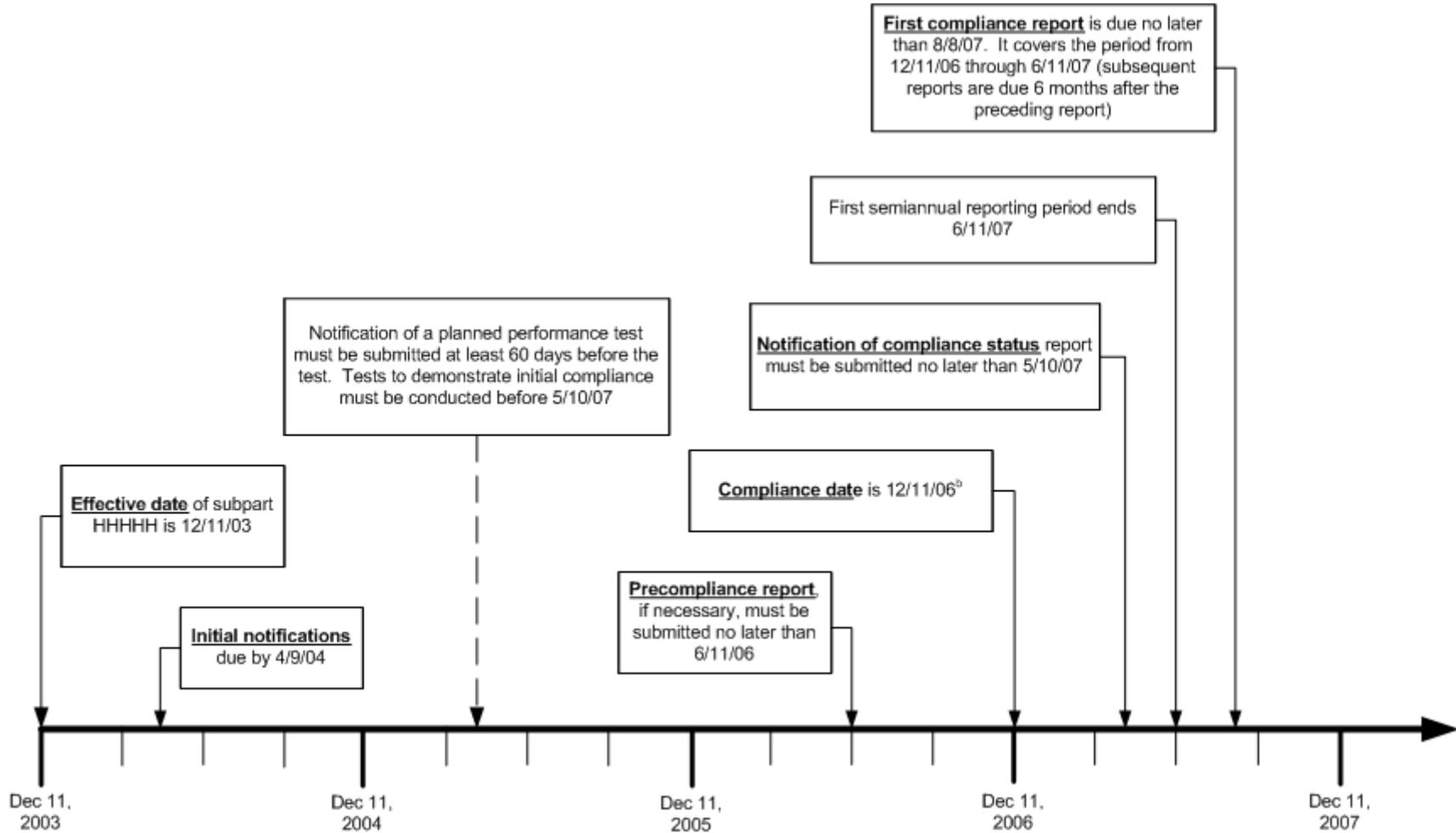
Figure 1-1. (continued)



**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)

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**I. Summary of Requirements**


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- 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)?  Y  N/A  N  
 §63.8075(d)(2)(ii)

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**

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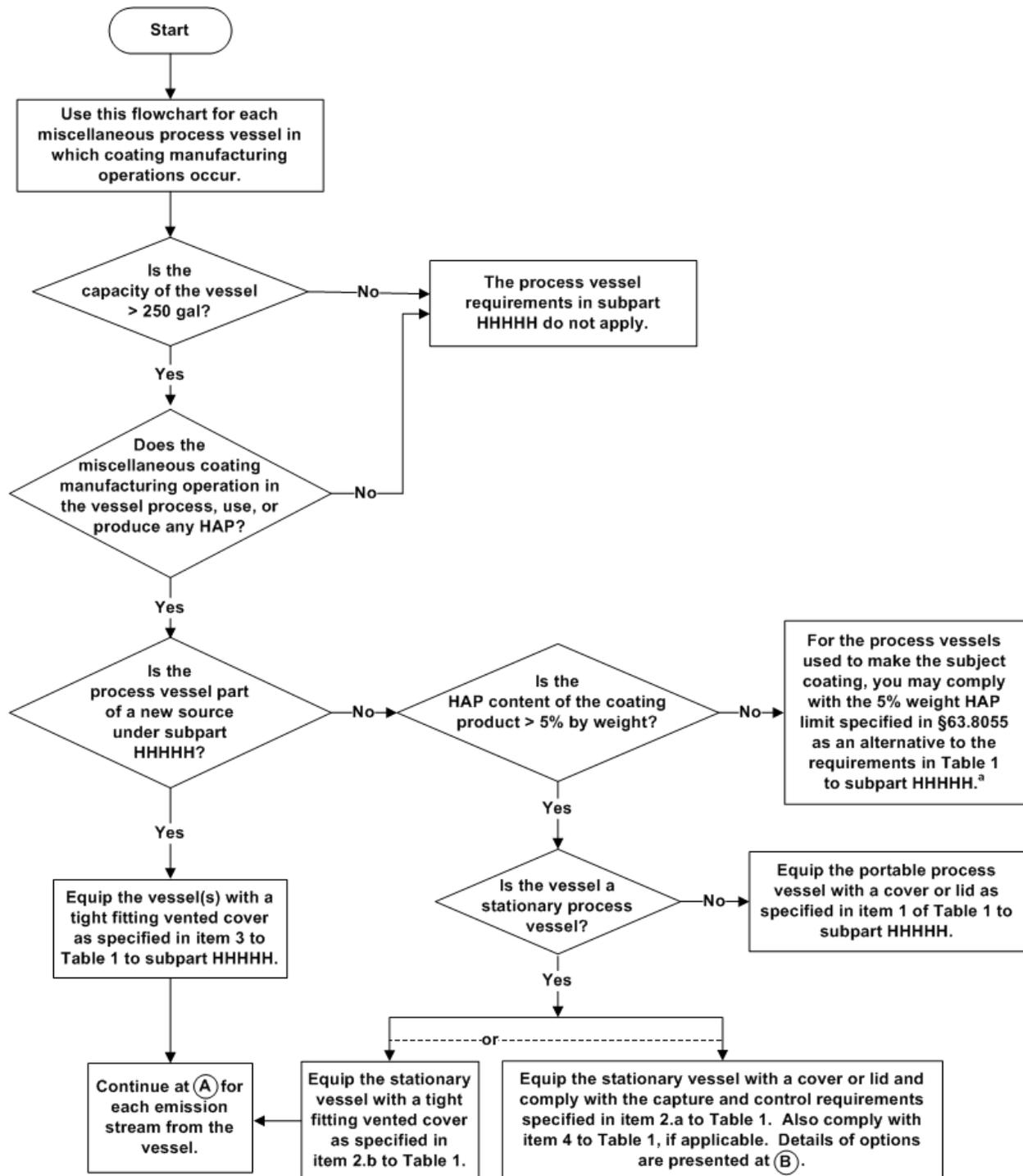


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## **Section 2**

### **Requirements for Process Vessels**

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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.

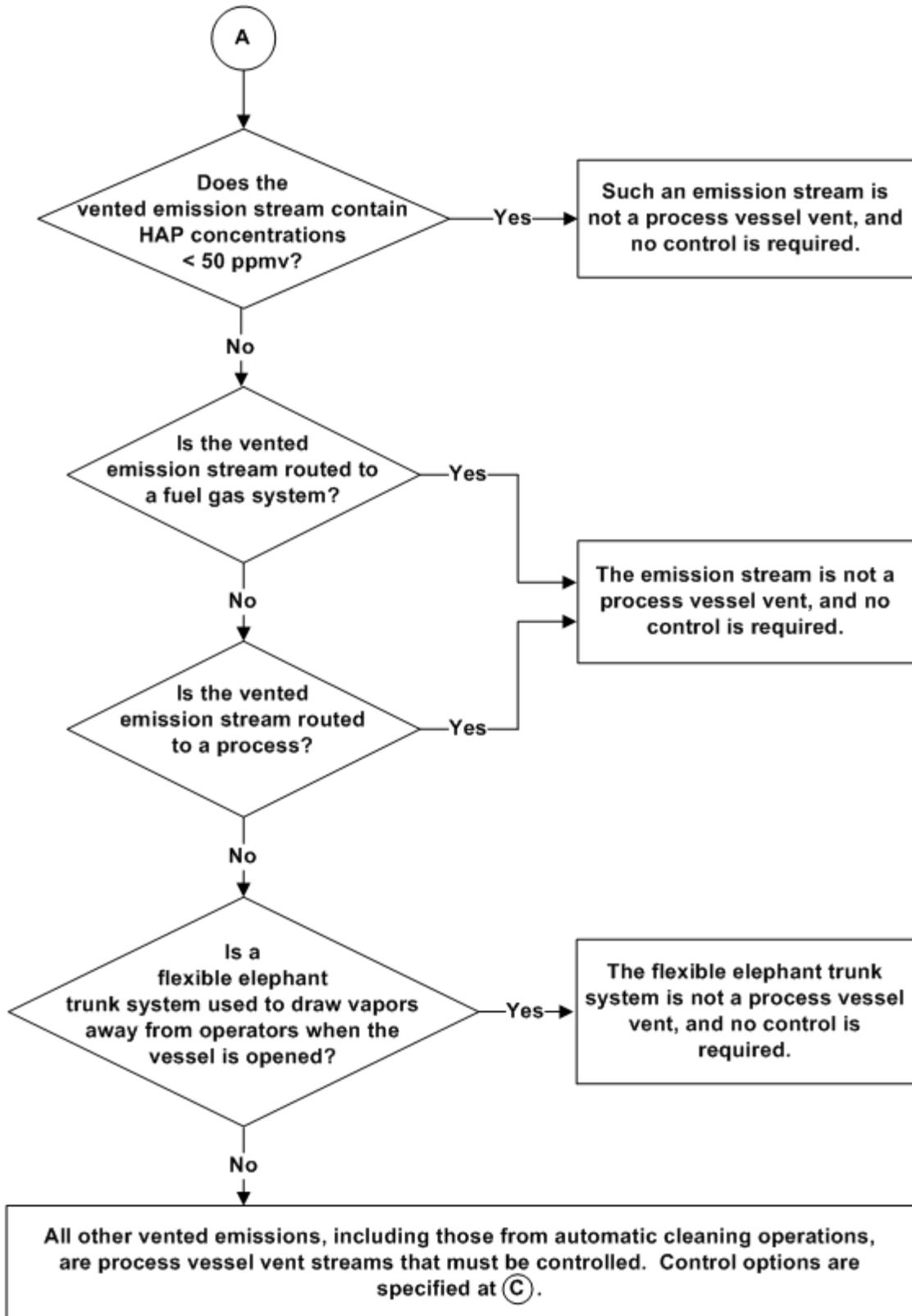


Figure 2-1. (continued)

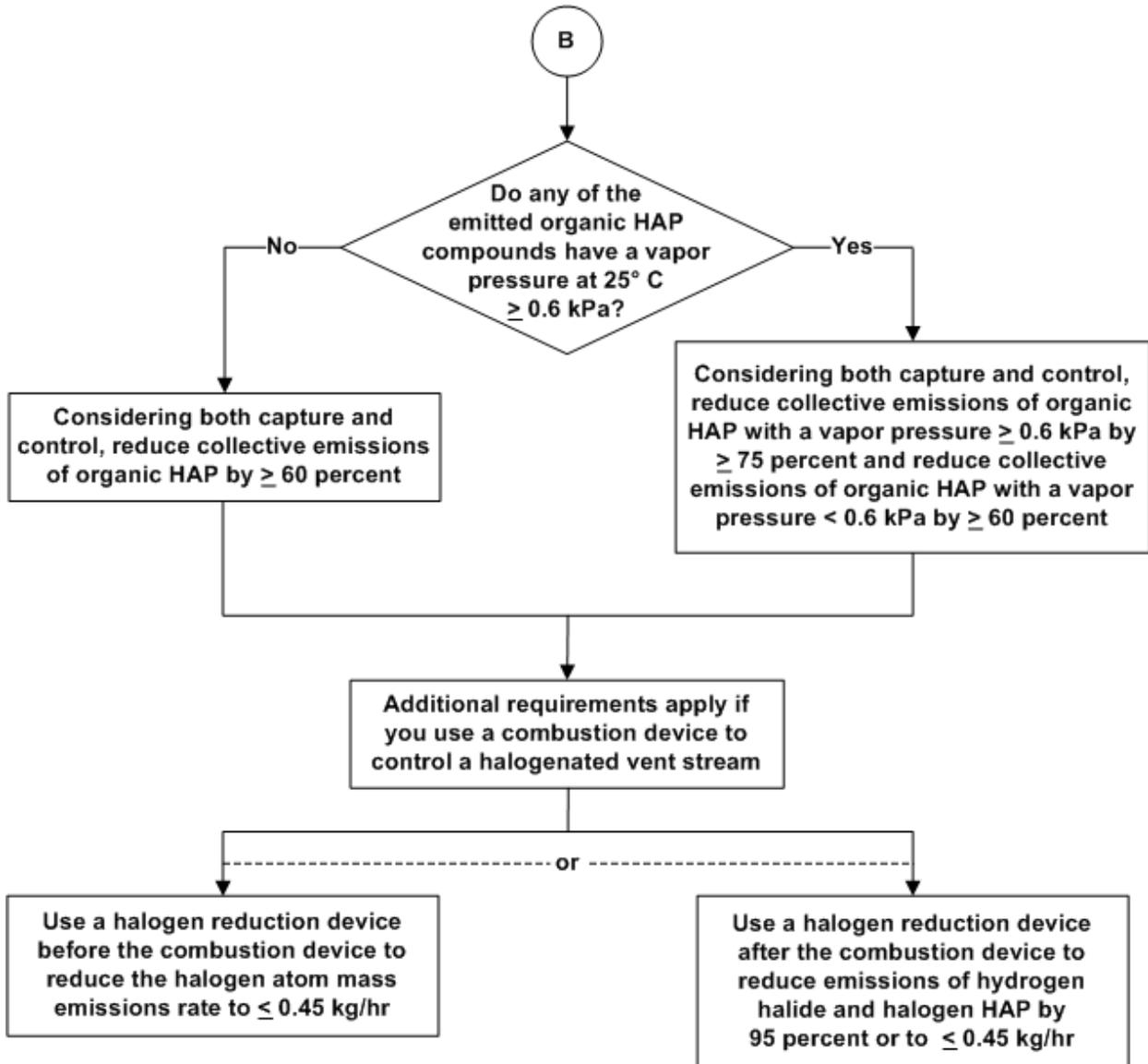


Figure 2-1. (continued)

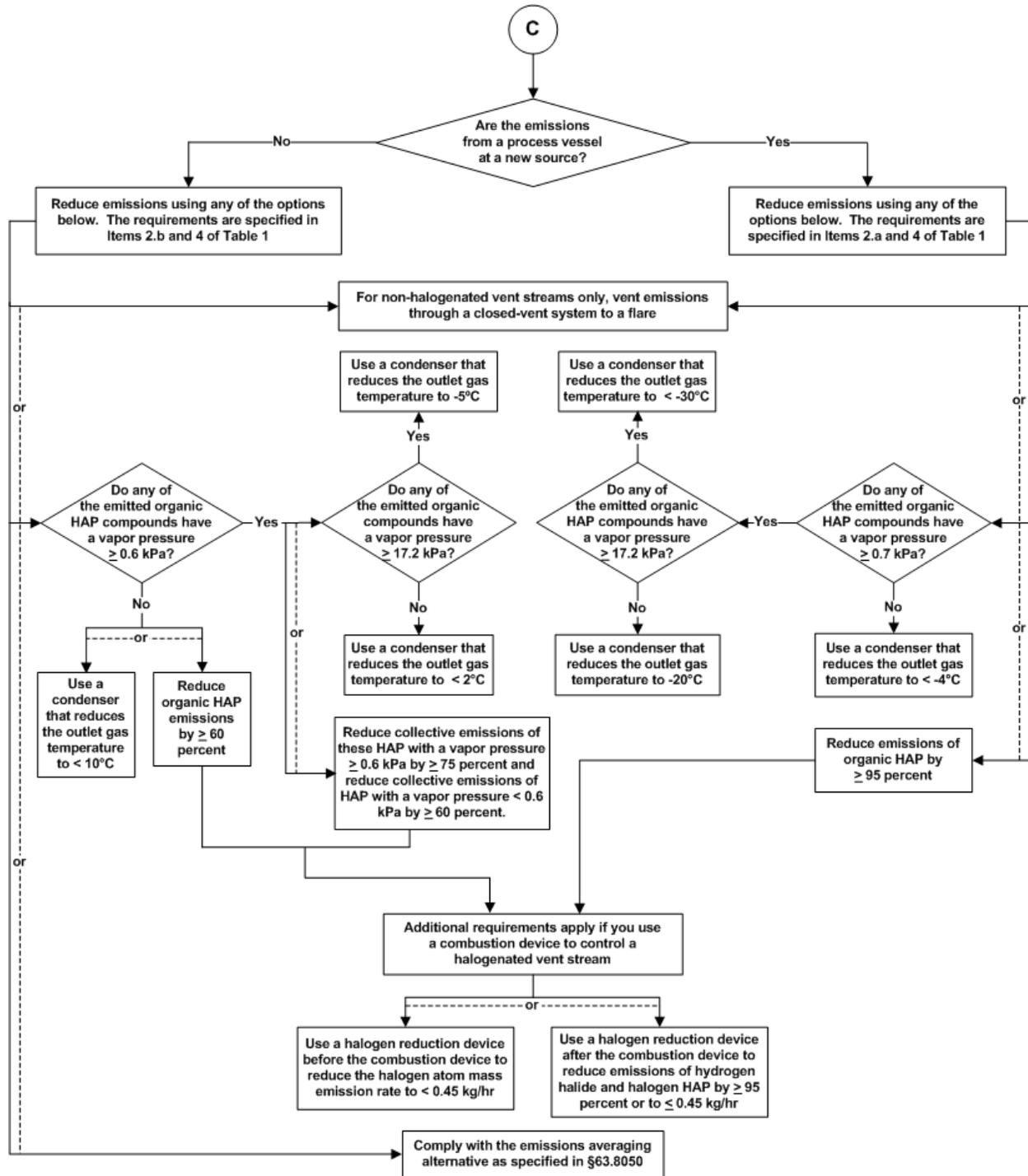


Figure 2-1. (continued)

**Table 2-1. Compliance Checklist for Emissions Averaging for Process Vessel Vents**

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

Note: Also use the checklists for closed vent systems and applicable control devices as referenced in item I.6 of Table 1-2.

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**I. Review of Records**

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- 1. Does the facility maintain a monthly log of the number of batches produced that can be correlated with the emission estimates per batch as documented in the notification of compliance status report? §63.8050(d)(1)  Y  N/A  N
  - 2. Does the facility sum the actual emissions for all process vessels in the emissions averaging group every 3 months? §63.8050(d)(2)  Y  N/A  N
  - 3. Is each quarterly sum of actual emissions less than the calculated estimate of emissions if the vessels had been controlled as specified in Table 1 to subpart HHHHH? §63.8050(d)(2)  Y  N/A  N
  - 4. Are all records kept for at least 5 years? §63.10(b)(1)  Y  N/A  N
- 

**II. Visual Inspections**

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- 1. Is the emissions averaging group limited to stationary process vessels? §63.8050(a)  Y  N/A  N
  - 2. Are the stationary vessels equipped with tightly fitting vented covers? §63.8050(b)(2)  Y  N/A  N
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**III. Note All Deficiencies**

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