



Ohio Administrative Code

Rule 3745-51-786 Containers - air emission standards for tanks and containers.

Effective: June 12, 2023

(A) Applicability. This rule applies to the control of air pollutant emissions from containers for which paragraph (B) of rule 3745-51-782 of the Administrative Code references the use of this rule for such air emission control.

(B) General requirements.

(1) The remanufacturer or other person who stores or treats the hazardous secondary material shall control air pollutant emissions from each container subject to this rule in accordance with the following requirements, as applicable to the container.

(a) For a container having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3 , the remanufacturer or other person who stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the "Container Level 1" standards specified in paragraph (C) of this rule.

(b) For a container having a design capacity greater than 0.46 m^3 that is not in light material service, the remanufacturer or other person who stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the "Container Level 1" standards specified in paragraph (C) of this rule.

(c) For a container having a design capacity greater than 0.46 m^3 that is in light material service, the remanufacturer or other person who stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the "Container Level 2" standards specified in paragraph (D) of this rule.

(2) [Reserved.]

(C) "Container Level 1" standards.



(1) A container using "Container Level 1" controls is one of the following:

(a) A container that meets the applicable U.S. department of transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (F) of this rule.

(b) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap).

(c) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous secondary material in the container such that no hazardous secondary material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(2) A container used to meet the requirements of paragraph (C)(1)(b) or (C)(1)(c) of this rule shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous secondary material to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices shall include organic vapor permeability; the effects of contact with the hazardous secondary material or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(3) Whenever a hazardous secondary material is in a container using "Container Level 1" controls, the remanufacturer or other person who stores or treats the hazardous secondary material shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:



(a) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(i) In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person who stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person who stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within fifteen minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the hazardous secondary material being added to the container, whichever condition occurs first.

(b) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(i) For the purpose of meeting the requirements of this rule, an empty hazardous secondary material container may be open to the atmosphere at any time (i.e., covers and closure devices on such a container are not required to be secured in the closed position).

(ii) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary material container, the remanufacturer or other person who stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within fifteen minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(c) Opening of a closure device or cover is allowed when access inside the container is needed to



perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. After completion of the activity, the remanufacturer or other person who stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(d) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other persons who stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(e) Opening of a "safety device," as defined in rule 3745-51-781 of the Administrative Code, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacturer or other person who stores or treats the hazardous secondary material using containers with "Container Level 1" controls shall inspect the containers and their covers and closure devices as follows:

(a) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person who stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within twenty-four hours after the container is accepted at the facility (i.e., is not an empty hazardous secondary material



container) the remanufacturer or other person who stores or treats the hazardous secondary material shall visually inspect the container and the container's cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the container standards in rules 3745-51-780 to 3745-51-789 of the Administrative Code).

(b) In the case when a container used for managing hazardous secondary material remains at the facility for a period of one year or more, the remanufacturer or other person who stores or treats the hazardous secondary material shall visually inspect the container and the container's cover and closure devices initially and thereafter, at least once every twelve months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person who stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (C)(4)(c) of this rule.

(c) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person who stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than twenty-four hours after detection and repair shall be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(5) The remanufacturer or other person who stores or treats the hazardous secondary material shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 or greater, which do not meet applicable U.S. DOT regulations as specified in paragraph (F) of this rule, are not managing hazardous secondary material in light material service.

(D) "Container Level 2" standards.

(1) A container using "Container Level 2" controls is one of the following:



(a) A container that meets the applicable U.S. DOT regulations on packaging hazardous materials for transportation as specified in paragraph (F) of this rule.

(b) A container that operates with no detectable "organic emissions," as defined in rule 3745-51-781 of the Administrative Code and determined in accordance with the procedure specified in paragraph (G) of this rule.

(c) A container that has been demonstrated within the preceding twelve months to be vapor-tight by using method 27 of 40 CFR Part 60 appendix A in accordance with the procedure specified in paragraph (H) of this rule.

(2) Transfer of hazardous secondary material in or out of a container using "Container Level 2" controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that Ohio EPA considers to meet the requirements of this paragraph include using a submerged-fill pipe or other submerged-fill method to load liquids into the container; or a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing the transfer line from the container opening.

(3) Whenever a hazardous secondary material is in a container using "Container Level 2" controls, the remanufacturer or other person who stores or treats the hazardous secondary material shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(a) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(i) In the case when the container is filled to the intended final level in one continuous operation, the remanufacture or other person who stores or treats the hazardous secondary material shall promptly



secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person who stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within fifteen minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(b) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(i) For the purpose of meeting the requirements of this rule, an empty hazardous secondary material container may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).

(ii) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary materials container, the remanufacturer or other person who stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within fifteen minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(c) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. After completion of the activity, the remanufacturer or other person who stores or treats the hazardous secondary material shall promptly secure the closure device in the closed



position or reinstall the cover, as applicable to the container.

(d) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other person who stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(e) Opening of a "safety device," as defined in rule 3745-51-781 of the Administrative Code, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacture or other person who stores or treats the hazardous secondary material using containers with "Container Level 2" controls shall inspect the containers and their covers and closure devices as follows:

(a) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person who stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within twenty-four hours after the container is accepted at the facility (i.e., is not an empty hazardous secondary material container), the remanufacturer or other person who stores or treats the hazardous secondary material shall visually inspect the container and the container's cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes



subject to the container standards in rules 3745-51-780 to 3745-51-789 of the Administrative Code).

(b) In the case when a container used for managing hazardous secondary material remains at the facility for a period of one year or more, the remanufacturer or other person who stores or treats the hazardous secondary material shall visually inspect the container and the container's cover and closure devices initially and thereafter, at least once every twelve months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person who stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of paragraph (D)(4)(c) of this rule.

(c) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person who stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than twenty-four hours after detection, and repair shall be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(E) "Container Level 3" standards.

(1) A container using "Container Level 3" controls is one of the following:

(a) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of paragraph (E)(2)(b) of this rule.

(b) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of paragraphs (E)(2)(a) and (E)(2)(b) of this rule.

(2) The remanufacturer or other person who stores or treats the hazardous secondary material shall meet the following requirements, as applicable to the type of air emission control equipment selected by the remanufacturer or other person who stores or treats the hazardous secondary material:



(a) The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T- Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741 appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person who stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in section 5.0 to "Procedure T- Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(b) The closed-vent system and control device shall be designed and operated in accordance with the requirements of rule 3745-51-787 of the Administrative Code.

(3) "Safety devices," as defined in rule 3745-51-781 of the Administrative Code, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of paragraph (E)(1) of this rule.

(4) Remanufacturers or other persons who store or treat the hazardous secondary material using "Container Level 3" controls in accordance with rules 3745-51-780 to 3745-51-789 of the Administrative Code shall inspect and monitor the closed-vent systems and control devices as specified in rule 3745-51-787 of the Administrative Code.

(5) Remanufacturers or other persons who store or treat the hazardous secondary material that use "Container Level 3" controls in accordance with rules 3745-51-780 to 3745-51-789 of the Administrative Code shall prepare and maintain the records specified in paragraph (D) of rule 3745-51-789 of the Administrative Code.

(6) Transfer of hazardous secondary material in or out of a container using "Container Level 3" controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading



procedures that Ohio EPA considers to meet the requirements of this paragraph include using a submerged-fill pipe or other submerged-fill method to load liquids into the container; or a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing the transfer line from the container opening.

(F) For the purpose of compliance with paragraph (C)(1)(a) or (D)(1)(a) of this rule, containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR Part 178 or 49 Part 179.

(2) Hazardous secondary material is managed in the container in accordance with the applicable requirements specified in 49 CFR Part 107 subpart B and 49 CFR Part 172, Part 173, and Part 180.

(3) For the purpose of complying with rules 3745-51-780 to 3745-51-789 of the Administrative Code, no exceptions to the 49 CFR Part 178 or 49 CFR Part 179 regulations are allowed.

(G) To determine compliance with the no detectable organic emissions requirement of paragraph (D)(1)(b) of this rule, the procedure specified in paragraph (D) of rule 3745-51-783 of the Administrative Code shall be used.

(1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, the container's cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to, the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and the cover's associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous secondary materials expected to be managed in this type of container. During the test, the container



cover and closure devices shall be secured in the closed position.

(H) Procedure for determining a container to be vapor-tight using method 27 of 40 CFR Part 60 appendix A for the purpose of complying with paragraph (D)(1)(c) of this rule.

(1) The test shall be performed in accordance with method 27 of 40 CFR Part 60 appendix A.

(2) A pressure measurement device shall be used that has a precision of plus or minus 2.5 millimeters (mm) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by method 27 indicate that the container sustains a pressure change less than or equal to seven hundred fifty Pascals within five minutes after the container is pressurized to a minimum of four thousand five hundred Pascals, then the container is determined to be vapor-tight.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]