

Closed Container Guidance for Hazardous Waste Generators

Guidance on Hazardous Waste Requirements



Introduction

The hazardous waste rules for the management of containers are intended to help protect ignitable or reactive wastes from sources of ignition; prevent spills, emissions and releases of volatile wastes; reduce the potential of mixing incompatible wastes; and reduce the potential of direct contact with hazardous wastes.

Hazardous waste regulations are found in chapters [NR 600-679](#) of the Wisconsin Administrative Code

A container is any portable device in which a material is stored, transported, treated, disposed of or otherwise handled. The most commonly used container is a 55-gallon drum. Other examples of containers include bags, boxes and totes. The Department of Natural Resources considers containers to be closed when they are spill proof and vapor tight. Having a container that is vapor tight is extremely important when the hazardous waste contains volatile organic compounds (VOCs).

With regard to managing hazardous waste in containers, very small quantity generators must meet the requirements of s. NR 662.014(4), Wis. Adm. Code, small quantity generators must meet the requirements of s. NR 662.016(2)(b), Wis. Adm. Code, and large quantity generators must meet the requirements of s. NR 662.017(1)(a), Wis. Adm. Code.

This document is intended to outline the closed container rule requirements and offer examples of the practices the DNR looks for to determine whether a hazardous waste generator is meeting the rule requirements. These rules and practices apply to containers in central accumulation areas and satellite accumulation areas (CAAs and SAAs).

This guidance document does not address meeting the level 1 and level 2 container standards under subch. CC of ch. NR 665, Wis. Adm. Code.

Liquid vs. Non-Liquid Waste

Management practices needed to meet rule requirements are different for liquid vs. non-liquid hazardous wastes. To verify that their waste is non-liquid (solid or semi-solid), generators commonly use the Paint Filter Test Method, which can determine the presence of free liquids.

Collect a representative sample and place the hazardous waste material in a conical paint filter for five minutes. If liquid passes through the filter in that time frame, the sample contains free liquid and must be handled as a liquid hazardous waste.

Document that there are no free liquids in the waste using [Test Method 9095B](#), U.S. EPA publication [SW-846](#) or a comparable method.

Liquid Waste Containers

Containers that accumulate liquid hazardous wastes are generally considered to be closed when all openings or lids are secured, closed and latched.

Closed-top drums: When closed-top drums or containers are used to accumulate liquid hazardous wastes, the drum is considered closed when the bungs are secured. Closed-top drums typically have two bungholes with a non-removable lid.

Open-top drums: On a typical open-top drum or container, the entire lid is removable and the lid is secured with snap ring and bolt/clamp. When open-top drums are used to accumulate liquid hazardous wastes, the drum would be considered closed when the drum's cover is properly secured with the snap ring and tightly bolted/clamped and the bungholes capped.

When a drum is in a SAA, the lid of an open-top drum may be placed on top without the snap ring in place as long as there is complete contact with the rim all the way around the top **and** the drum is secured with a chain or strap to a wall, building support column or stationary equipment in the area. The DNR expects the lid to be secured with the snap ring and bolt/clamp at the end of the work shift or, if the lid is a flip top, equipped with a latch and secured at the end of the work shift.

Funnel lids for drums: There are commercial devices available that aid in the frequent addition of hazardous waste to containers. These devices – when used correctly – satisfy the closed container requirement. For example, drum funnels with manual or self-closing lids, one-way valves that contain the waste or emission, or other similar closing devices, could be used to meet the closed container requirement for closed-top drums during daily operations when adding liquid hazardous wastes to these drums.



When using a drum funnel, the DNR considers the closed container requirement to be satisfied when all of the following are met:

- The drum funnel is screwed tightly into the bunghole.
- The drum funnel's lid is firmly closed and latched.
 - If the container is prevented from tipping/spills (e.g., chained to the wall or support post) the funnel lid locking mechanism is latched at the end of the work shift.
 - If the container with the funnel lid is not prevented from tipping/spilling, the funnel lid locking mechanism is latched at all times except when adding wastes.

Air Emissions: When managing hazardous wastes in containers with a design capacity greater than or equal to 26 gallons and with an average VOC equal to or greater than 500 ppmw, refer to subch. CC of ch. NR 665, Wis. Adm. Code, for specific requirements to control air emissions.

Non-Liquid Waste Containers

Containers that are used to accumulate non-liquid hazardous waste (solid and semi-solid hazardous wastes that pass the paint filter test) in CAAs and SAAs must also be kept closed. Examples include dewatered metal-bearing sludges, sandblasting waste and paint filters. For non-liquid hazardous waste, the DNR considers the container closed as long as there is complete contact between the lid and the rim all around the top of the container, except when waste is being added to or removed from the container.

Bags, boxes, pails and totes: Hazardous waste may be stored in other types of containers such as bags, boxes, pails and totes, sometimes referred to as IBCs or intermediate bulk containers. For example, waste paint filters are sometimes stored in bags. These bags are considered to be closed when the neck of the bag is tightly twisted and bound to prevent the release of the volatile compounds and emissions.



Pails: Small containers such as 5-gallon pails are more likely to tip over and it is important to keep these containers tightly closed at all times, except when waste is being added or removed. It is recommended that these containers be placed in a tub or spill containment unit.

Use of a tarp would not be an acceptable Level 2 control device for hazardous waste having an average volatile organic concentration is greater than or equal to 500 ppmw.

Containers with foot pedals: Containers with covers opened by a foot pedal, such as flip-top, spring loaded or self-closing lids, are typically used for non-liquid hazardous wastes. These types of containers are considered closed when the covers make complete contact between the lid and the entire rim. Containers of this type are appropriate for wastes such as solvent-contaminated wipes, batteries, aerosol cans or solvent-contaminated wipes. Once the container is full the contents should be transferred to a container that allows the lid to be securely affixed to the container.




Roll-off boxes: Roll-off boxes are primarily used for storage and transportation of non-liquid wastes. A roll-off box is considered closed when the tarp is tightly secured (e.g., tied or strapped) so the cover always stays squarely on the roll-off box, so long as the tarp must not have any rips, tears or punctures. If the roll-off box has a manufactured lid that opens and closes, the container is considered closed when there is complete contact between the lid and the entire rim of the roll-off box.

Container images courtesy of Justrite®

If tarps are used as container covers for outdoor accumulation or storage of hazardous waste, the container is considered closed when the tarps are made of materials suitable to weather conditions including exposure to wind, moisture and sunlight. Precipitation cannot be allowed to enter the container, as even modest amounts are sufficient to leach hazardous constituents from the waste and potentially leak, creating a violation.

Continuous or Intermittent Use

Containers continuously or intermittently receiving hazardous wastes often remain open while connected to a device that generates the waste (e.g., baghouse, filter press). In these situations, the containers should be capable of catching and retaining all of the hazardous waste generated during the transfer from the device to the container. These containers must be kept closed when not continuously or intermittently receiving hazardous waste (i.e., end-of-shift or end-of-day). Containers intermittently receiving hazardous waste that are not connected to a device are expected to be closed within 15 minutes or when the operation leaves the immediate vicinity of the container, whichever occurs first.

 For non-liquid wastes that have the potential to release vapors, follow the guidance for containers storing liquids.

Example 1: Cubic yard boxes such as gaylords, with or without bag liners, may be used for non-volatile hazardous waste, such as F006 filter cake. Between batch filling, these containers are considered closed when the neck of the inner bag is tied shut, or twisted and tied shut, and the lid is securely placed on the box between batch filling.

Example 2: Laboratory jars or carboys that receive hazardous waste containing VOCs directly from a machine, like a high-performance liquid chromatography (HPLC) analyzer, are considered to be closed when the tubing and cap are secured and form a vapor tight seal to the container.

Example 3: A super sack connected to a baghouse is considered closed when it is securely connected to the baghouse so that no waste escapes from the super sack.

Resources and Contact Information

For more information including [publications, inspection forms, and administrative codes and statutes](#), go to dnr.wi.gov and search “hazardous waste resources.” Use the *Additional Resources* menu to navigate to specific topics. For staff contact information, go to the [staff directory](#) and enter “hazardous waste requirements” in the subject field and choose the appropriate county contact.

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