Kansas Department of Health and Environment
Bureau of Waste Management
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Container Management for Hazardous Waste Generators

Technical Guidance Document HW 05-01

The purpose of the guidance document is to describe the regulatory requirements for managing hazardous waste storage containers and satellite accumulation containers by generators. This document also provides various recommendations not specifically required by the regulations. The recommendations are for guidance only and are not intended to replace other regulatory or safety requirements.

Introduction

Some of the most common violations observed during inspections are violations of container management standards. Containers that are not correctly closed, labeled or marked, and dated are among the most common violations cited during inspections and are frequently cited as repeated violations in subsequent inspections.

This document is divided into three general discussion topics. The first topic covers guidance for the management of all containers storing and accumulating hazardous waste. The second topic covers specific guidance for the management of satellite accumulation containers and "day accumulation containers." The third topic covers some general guidance for compliance with 40 CFR 265 Subpart CC.

Storage Requirements for Containers Storing or Accumulating Hazardous Wastes

Container Conditions

Each container **must** meet the following:

- be in good condition;
- have adequate strength and integrity to contain the waste;
- **not** contain deep creases or dents, especially on or across reinforcing rings, chimes, or seams; and
- **not** be severely rusted or corroded.

Please remember that each container must meet U.S. Department of Transportation packaging standards when shipped off-site.

Closing Containers

Each container storing hazardous waste **must** be fully closed except when adding or removing waste.

- For an open-head drum this means the lid has a good gasket, the lid is fully seated on the drum's rim and the clamping ring is fully secured, so that if tipped and waste contacts the lid, no leaks are detected.
- For closed head drums this means the bung gaskets are good and the bungs are fully secured, so that if tipped and waste contacts the bungs, no leaks are detected.
- For a bag this means the opening is securely closed so that no waste is visible.
- For boxes this means the lids or flaps are securely closed with no gaps, holes, tears, or openings in the boxes.
- For roll-off boxes, dumpsters, totes, Gaylord containers, and similar type containers, the lids, covers, hatches, tailgates, etc. must be securely closed and fastened to the container and contain no holes, tears, gaps, etc. in the covers or lids. The covers or lids **must** cover the entire opening with no visible gaps along the edges.
- Gaskets **must** be installed where necessary for proper closure.
- If containers are stored outside where precipitation is able to accumulate on the cover or lid, they **must** be impervious to water and able to support the weight of any accumulated precipitation.
- A pressure-relief vent **may** be used as necessary during accumulation or storage, provided the vent remains closed when not venting.

Compatibility

- Each container or container liner **must** be compatible with the waste that is placed in the container.
- All waste placed into a container **must** be compatible with other wastes placed in the same container.
- Each container storing waste that is incompatible with any other waste or material stored in the same area **must** be segregated by means of a dike, berm, wall, curb, or other device that will segregate the incompatible materials.

Labeling/Marking, Dating, and Storage

- Each container **must** be clearly labeled or marked with the words "Hazardous Waste."
- Each container **must** be dated with its accumulation start date, which is the date the container first began to store waste. Note: Do **not** date satellite accumulation containers until they are full or exceed 55-gallons of non-acute hazardous waste.
- Adequate aisle space **must** be maintained for emergency equipment access and inspections.
- Each container **must** be placed so the words "Hazardous Waste" and the accumulation start date are clearly visible for inspection.
- Containers may be placed in rows or stacked, but should not be arranged in rows greater than two containers wide and should not be placed directly against walls. Avoid stacking containers, if possible.
- Each container should be stored on a hard surface and/or a pallet, when possible.
- Secondary containment is recommended for all hazardous waste containers, when possible.

Storage of Ignitable and Reactive Wastes

- For EPA generators only, each container storing ignitable or reactive hazardous waste **must** be stored at least 50 feet from the facility's property line.
- Containers storing ignitable waste **should** be grounded when adding or removing waste.

Weekly Inspections

Hazardous waste containers **must** be inspected at least weekly (preferably every seven days).

- Weekly inspections **must** include, but are not limited to, checking for leaks and signs of corrosion or other deterioration.
- Weekly inspections and corrective actions **must** be documented and the records maintained for a minimum of three years.

Also, check for adequate aisle space, correct labels/markings and dates, segregation of incompatible wastes and other materials, and check the condition of secondary containment, if provided.

Management of Satellite Accumulation Containers

- A satellite accumulation container **must not** accumulate more than 55 gallons of waste even if the container's capacity exceeds 55 gallons.
- There **must** be no more than one satellite accumulation container of each type of hazardous waste at each point of generation.
- Each satellite container **must** be in good condition and compatible with the waste placed in the container.
- Each satellite container **must** be clearly labeled or marked with the words "Hazardous Waste."
- Each satellite container **must** be kept closed except when adding or removing wastes.
- Each satellite container **must** be at or near the point of generation and under the control of the operator.

When to Date a Satellite Container

Satellite containers are not required to be dated until they accumulate 55 gallons of waste or when the container becomes full if the container is less than 55 gallons. Within three days, each full container must be moved to a hazardous waste storage area or emptied into a storage container, tank, or recycling unit.

Satellite Containers Greater Than 55 Gallons

The regulation limits the amount of waste collected in each satellite container to 55 gallons per waste stream, but does not limit the size of the container.

For instance, an 85-gallon container could be used, but may not accumulate more than 55 gallons of

waste. Once the 55-gallon capacity is exceeded, the container must either be emptied, or dated and managed as a storage container if the container will continue to accumulate waste. Note: Once the container exceeds the 55-gallon limit, it is no longer a satellite container and is regulated as a storage container. KDHE does not recommend using any container greater than 55 gallons as a satellite accumulation container.

Closing Satellite Containers

Satellite containers that are accumulating hazardous wastes must be closed using a cover or lid designed to close the container; however, the cover or lid may remain unsecured during working hours provided it is completely in contact with the rim or edges of the container and managed to prevent spillage. Containers collecting wastes containing volatile constituents must have gaskets installed. All containers, whether storing liquids or solids, must be securely closed at the end of the working day or, for continuous operations, when the process generating the waste shuts down for more than one shift.

Closing Satellite Containers That Have Funnels, Modified Lids, and Other Closure Devices Installed

Two of the most common satellite containers in use are drums with funnels installed in the large bung opening and safety cans or drums with hinged lids. Lids on these containers are typically spring-loaded or self-closing and many have latching devices. A cover or lid may remain unsecured during working hours provided it is completely in contact with the rim or edges of the container. All containers accumulating liquids or volatile wastes must have tight fitting lids with a gasket and a latching device or be spring-loaded to hold the lid securely closed. For instance, a drum used to collect waste paint thinner may use a funnel with a spring-loaded lid; and therefore, does not need a latching device on the funnel lid.

Containers with damaged lids that do not close tightly are considered open containers by KDHE. Also, containers that are too full for the lid to completely close tightly are considered open containers.

KDHE recommends that satellite containers collecting liquid waste be secured or protected to prevent accidental spillage or provided with secondary containment, when possible.

Training Recommendation

Although not required, KDHE strongly recommends that persons using satellite containers **should** be trained to:

- keep each container closed;
- label or mark each container with the words “Hazardous Waste”;
- keep each container in good condition; and
- use a container that is compatible with the waste.

Other Management Recommendations

Although not specifically required by regulation, KDHE strongly recommends the following management practices for all satellite accumulation containers.

- Weekly inspections should be conducted and documented by trained staff.
- Containers holding ignitable waste should be grounded when in use.
- Each container should be placed on a hard surface and/or pallet, if possible.
- Secondary containment is recommended for each waste satellite container when feasible.

Day Accumulation Containers

A “day accumulation container” is any container with a capacity of 5 gallons or less that is used to accumulate hazardous waste at a work area or work station and is under the direct control of the operator of the work area or station.

Generators desiring to use day accumulation containers **must** submit a written request to KDHE’s Bureau of Waste Management. Each request must designate which containers will be used as day accumulation containers. KDHE must provide written approval to the generator before any day accumulation container is placed into service. KDHE reserves the right to deny the use of any day accumulation container or revoke authorization to use any or all day accumulation containers.

KDHE allows the use of day accumulation containers only under the following conditions.

- Each container must be labeled or marked with the words "Hazardous Waste."
- Each container is kept securely closed when waste is not being added or removed. Refer to the "Closing Satellite Containers" sections above for additional information concerning container closure.
- Each container must be in good condition and compatible with the waste placed in the container.
- Each container is emptied into an appropriate satellite or storage container or tank at the end of each work day or shift for continuous operations, regardless of whether the container is full or not.

Day accumulation containers that are not managed in accordance with the above guidelines will be considered as satellite accumulation containers. KDHE requires that containers larger than 5 gallons in capacity be managed as satellite accumulation containers.

Subpart CC Requirements for Containers Managed by EPA Generators

On September 20, 2002, KDHE adopted 40 CFR 265 Subpart CC into the state hazardous waste regulations under K.A.R. 28-31-4(g)(1)(B).

Applicability

This regulation applies to EPA generators. The Subpart CC regulations control air emissions of volatile organic constituents from storage containers, tanks, and surface impoundments. The generator has various management options to control volatile emissions. The regulations **do not** apply to:

- containers with a capacity less than 0.1 m^3 (about 26 gallons); or
- hazardous waste with an average volatile organic concentration of less than 500 ppmw (parts per million weight).

Level 1 Container Controls

For hazardous waste that is simply stored in containers with a capacity greater than 26 gallons but less than or equal to 121 gallons, the generator may use Level 1 control options. Level 1 control options include the following.

- Place the hazardous wastes into containers that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation. Except for lab packs, no DOT exceptions are allowed.
- Place the waste into a container equipped with a cover and closure devices that form a continuous barrier over the top of the container such that when the cover is fully closed and secured, there are no visible holes, gaps or other openings into the interior of the container. The cover may be a separate cover, such as lid on a drum or a tarp on a roll-off box, or the cover may be an integral part of the container such as a hatch on a portable tank or tote.
- Place the waste in an open-topped container in which an organic-vapor-suppressing barrier is placed over the top of the hazardous waste such that none of the waste is exposed to the atmosphere (for example, applying a vapor suppressing foam over the waste).

EPA generators that use storage containers with capacities greater than 121 gallons, such as roll-off boxes, dumpster, bags, totes, etc., may be able to use Level 1 control options for wastes **not** "in light material service"[1].

Level 2 Container Controls

For hazardous wastes meeting the definition of "in light material service," one of the following Level 2 control options must be used.

- Place the hazardous wastes into containers that meet the applicable DOT regulations on packaging hazardous materials for transportation. Except for lab packs, no DOT exceptions are allowed.
- Place the hazardous wastes into containers that, when closed, have no detectable organic emissions as determined by using Method 21 in
  - Appendix A of 40 CFR 60 and the requirements of the regulation.
  - Place the hazardous waste into a container that has been demonstrated to be vapor-tight during the preceding 12 months as determined by using

Method 21 in Appendix A of 40 CFR 60 and the requirement of the regulation.

Level 3 Container Controls

Level 3 container control options apply to any container with a capacity greater than 26 gallons in which hazardous waste is being treated by a stabilization process. Level 3 control options include the following.

- Place the hazardous wastes into containers that are vented directly through a closed-vent system to a control device in accordance with the regulation.
- Place the hazardous wastes into containers that are vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the regulation.

Please note that satellite accumulation containers are not subject to Subpart CC requirements.

Subpart CC Container Closure Requirements

The regulations require that a container be promptly closed whenever one of the following is met:

- the container is filled to its intended level;
- no waste will be added to the container within 15 minutes after the last amount was added;
- the person loading the container leaves the immediate area of the container; or
- the process generating the waste being added to the container shuts down (for any reason).

KDHE encourages each EPA generator to review their waste management practices to ensure compliance with these regulations and to obtain professional consulting services, if necessary.

[1] "In light material service" means the container is used to manage a material for which both of the following conditions apply: the vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20°C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight.

For additional information regarding proper management of any wastes, you may contact the Bureau of Waste Management at (785) 296-1600 or the address at the top of this document, or visit the Bureau's website at www.kdheks.gov/waste.