

Satellite Accumulation Areas

Guidance on Hazardous Waste Requirements



Introduction

Wisconsin businesses and institutions are required by federal and state laws to manage hazardous waste in accordance with the Resource Conservation and Recovery Act requirements. These regulations allow small and large quantity generators to manage routinely accumulated hazardous wastes from activities such as process lines or laboratories under satellite accumulation area requirements.

Hazardous waste regulations are found in [chs. NR 660-679](#) of the Wisconsin Administrative Code.

Hazardous waste containers in SAA areas must be kept at or near the point of generation of the waste and kept under the control of the operator in charge of the waste generation process. Additionally, although the SAA may have more than one container or waste stream, the area is restricted to accumulating a total of no more than 55 gallons of non-acute hazardous waste, or 1 quart of liquid acute hazardous waste or 1 kilogram of solid acute hazardous waste. [s. NR 662.015 (1), Wis. Adm. Code]

Generators must count the hazardous waste accumulated at their SAAs when evaluating their generation totals each calendar month. Accurate generation totals are required to establish the correct generator status of the facility.

This Wisconsin Department of Natural Resources provides definitions, general requirements, and common scenarios pertaining to hazardous waste SAAs regulated by the DNR's hazardous waste program. It applies to large and small quantity hazardous waste generators, along with treatment, storage and disposal facilities that are also hazardous waste generators.

For further guidance on waste generation, counting monthly totals, and other applicable regulatory requirements, see the *Quick Reference Guide* (WA-1821). Hazardous wastes that are excluded from counting toward monthly generation totals are outlined in ss. NR 662.013(3) and NR 662.013(4), Wis. Adm. Code.

Definitions and Clarifications

Satellite accumulation areas: While SAA requirements are outlined in Wisconsin Administrative Code, the term is not specifically defined. The U.S. Environmental Protection Agency has stated that an SAA is a designated area at or near a point of generation where hazardous waste is initially accumulated in containers, prior to consolidating the hazardous waste at a designated central accumulation area. Satellite accumulation must utilize containers, not tanks, waste piles or other hazardous waste management units. More than one waste stream may be collected at a satellite accumulation area.

Regardless of how many containers are in the area, the total amount of waste at each SAA cannot exceed 55 gallons of non-acute hazardous waste, or 1 quart of liquid acute hazardous waste or 1 kilogram of solid acute hazardous waste.

There is no limit to the number of SAAs located throughout a facility, and the locations are typically dictated by the facility's operations and layout.

Central accumulation area: A CAA refers to the area or areas in the facility where hazardous waste accumulation occurs in containers and tanks. These areas do not require operating licenses, so long as the requirements for SQGs and LQGs in ss. NR 662.016 or NR 662.017, Wis. Adm. Code, respectively, are met. This includes CAAs with 90-day, 180-day or 270-day accumulation time limits. Generators may have more than one CAA on site. The word “central” is used because many generators use a CAA to consolidate or centralize their hazardous waste from multiple SAAs prior to shipment off-site. [s. NR 660.10(9t)]

Closed container: A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste, consolidate waste, or when temporary venting of a container is necessary for the proper operation of equipment or to prevent dangerous situations, such as build-up of extreme pressure. When the U.S. EPA developed the rule, they interpreted the word “closed” to mean “vapor tight and spill proof.” For details on closed container standards, see *Closed Container Guidance for Hazardous Waste Generators* (WA-1342). [ss. NR 665.0173(1) and 662.015 (1)(d)]

Compatible/Incompatible waste: When a hazardous waste causes corrosion or decay of a container or inner liner, it is considered “incompatible” with the container. When a hazardous waste is commingled with another waste or material and produces heat, pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes or gases, flammable fumes or gases, it is considered “incompatible” with that waste or material. An example would be acid waste stored in a metal container without an appropriate liner, as the acid may corrode the metal resulting in a release of the hazardous waste. [s. NR 660.10(58)]

[Appendix V of ch. NR 665, Wis. Adm. Code](#), provides a list of potentially incompatible wastes. The list is not intended to be exhaustive, and the generator should perform adequate analysis to determine compatibility of wastes and containers.

Container: A container is defined as any portable device in which a material is stored, transported, treated, disposed of or otherwise handled. For details on treatment in containers, refer to Table 1: Summary of SAA Container Requirements, on page 3. [s. NR 660.10 (14)]

When shipped off-site, containers must also meet U.S. Department of Transportation requirements and packaging standards.

Container in good condition: Hazardous waste must be stored in containers that are in good condition, meaning they are free of dents, creases, bulging, corrosion and leaks. Hazardous waste in defective containers must be transferred to containers in good condition or handled in a way that satisfies the requirements of subch. I of ch. NR 665, Wis. Adm. Code.

Individual waste streams: An individual waste stream is a hazardous waste generated at a specific POG within a process. The waste stream could be physically or chemically different from other waste generated at different points in the process, or it could be the same type of waste, generated at different points along the same process or line.

At or near the point of generation: Regulations require satellite accumulation must occur at or near the POG, but they do not specifically define “at” or “near” as specific minimum or maximum distances. As manufacturing and industrial processes are highly variable, the regulations allow flexibility in applying this requirement to provide effective and safe management of hazardous waste. In general, POG means the point at which the waste is generated, prior to any dilution, mixing or other alterations; or prior to any time during the management of the waste where the waste properties may change due to exposure to the environment or other factors. [s. NR 662.015(1)]

The SAA could be located within a room or storage cabinet provided the room or storage cabinet is at or near the POG and under the operator’s control. Locating an SAA outside of the building in which the hazardous waste is generated may be regarded as placing it beyond the “at” or “near” the POG and would no longer be “under the control of the operator.” If a generator accumulates hazardous waste

that is so dangerous it needs to be accumulated away from the POG, it should be accumulated under the more rigorous accumulation standards for CAAs.

Satellite Accumulation Requirements

Satellite accumulation requirements for SQGs and LQGs are located in s. NR 662.015, Wis. Adm. Code. Very small quantity generators are not required to establish SAAs and CAAs, but they are required to follow container and accumulation requirements in s. NR 662.014, Wis. Adm. Code.

Table 1: Summary of Satellite Accumulation Requirements

Container management standards	Required	Discussion
Container in good condition	Yes s. NR 662.015(1)(a)	If a container holding hazardous waste is not in good condition or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container in good condition or immediately transfer and manage the waste in a central accumulation area operated as specified in ss. NR 662.016(2) or 662.017(2), Wis. Adm. Code.
Container compatible with wastes	Yes s. NR 662.015(1)(b)	The owner or operator shall use a container made of, or lined with, materials that will not react with, and are otherwise compatible with, the accumulated hazardous waste so the ability of the container to hold the waste is not impaired.
Container is separated from nearby incompatible materials	Yes s. NR 662.015(1)(c)	Incompatible wastes and materials are not placed into the same container. A container of hazardous waste that is incompatible with any waste or other materials accumulated nearby must be separated from the other materials or protected from them by any practical means.
Container closed, except when adding/removing waste	Yes s. NR 662.015(1)(d)	A container holding hazardous waste shall always be closed during accumulation, except when it is necessary to add or remove waste.
Containers are properly labeled and marked	Yes s. NR 662.015(1)(e)	Mark the containers with the words "Hazardous Waste" and an indication of the hazards ¹ . Labels need to be visible to employees and emergency responders.
Containers marked with accumulation start date	No	Satellite areas are the only accumulation areas where hazardous waste containers are not required to have an accumulation start date.
Containers have an accumulation time limit	No	No time limit on containers that have not reached SAA accumulation limits.
Accumulation limits	Yes s. NR 662.015(1)	A generator may accumulate as much as 55 gallons of non-acute hazardous waste or one quart of liquid or 1 kilogram of solid acute hazardous waste listed in s. NR 661.0033(5), Wis. Adm. Code.
Dating SAA container with date of when the accumulation limit has been reached	Yes s. NR 662.015(1)(f)3.	When the generator exceeds 55 gallons of non-acute or 1 quart liquid or 1 kilogram of solid acute hazardous waste, the containers must be dated.
Moved within 3 days of going beyond the accumulation limit	Yes ² s. NR 662.015(1)(f)	Waste in excess of 55 gallons non-acute or 1 quart of liquid or 1 kilogram of solid acute hazardous waste must be removed from SAA within three days. The container(s) must be moved to a CAA or be manifested and shipped to a designated hazardous waste facility. Note: There is no requirement that full containers of less than 55 gallons non-acute or 1-quart liquid or 1 kilogram solid acute hazardous waste be removed from an SAA.
Dating SAA container when moved to CAA	Yes ² s. NR 662.015(1)(f)	If the SAA container reaching the accumulation limit for the SAA is dated and immediately removed from the SAA into the CAA, that date is valid for the CAA start date. If the SAA is not moved immediately, the container must be re-dated when it is placed in the CAA ² .

Subchapter CC - air emission standards	No s. NR 662.015(1)(f)	Containers in SAAs are not required to comply with the air emission standards in subch. CC of ch. NR 665, Wis. Adm. Code. LQGs must comply with air emissions standards for containers in CAA. SQGs are not required to comply with the air emission standards for containers in CAA.
Treat waste in container	No ³	Treatment in SAA containers would require them to be essentially managed under full CAA requirements.
Inspections	No	Inspections of containers (whether weekly or some other frequency) in SAAs are not required.
Preparedness & Prevention	Yes s. NR 662.015 (1) (g) and (h)	SAAs at SQGs shall meet preparedness and prevention requirements in NR 662.016 (2) (h) and emergency procedures in NR 662.016 (2) (i). SAAs at LQGs shall meet preparedness, prevention and emergency procedures in NR 662, subch. M.

¹ Label SAA containers with an indication of the hazards contained in them (e.g. applicable hazardous waste characteristic(s); Department of Transportation hazard communication requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704).

² The container must be dated reflecting the date it is moved to the CAA. The container then must be moved off-site within 90, 180 or 270 days as required by ss. NR 662.016(2) or NR 662.017(1), Wis. Adm. Code, respectively. This means the time for removing containers from the CAA area starts on the date the container was placed in the CAA. For example, an LQG could have up to 93 days to ship a container once the accumulation limit was reached at a SAA: three days at the SAA and 90 days at the CAA.

³ Technically, a generator can treat hazardous waste in a satellite accumulation container. However, once a generator chooses to treat hazardous waste in a SAA container, the container must then comply with all container standards listed in subchapter I of ch. NR 665, Wis. Adm. Code, which includes weekly inspections and compliance with subchapter CC air emissions requirements. Per s. NR 670.001(3)(b)11, Wis. Adm. Code, a generator who treat hazardous waste in a container needs to comply with either ss. NR 662.017 (LQG) or NR 662.016 (SQG), Wis. Adm. Code.

Best Management Practices

Though not required by rule, the following practices are strongly encouraged by the DNR to better protect employee health and the environment:

- Define and mark individual SAAs to better control the waste accumulation area, communicate potential hazards for employees and emergency responders, and assist in clarifying waste management, POG, individual waste streams, etc. during an inspection event.
- Ensure that operators who use satellite accumulation containers are trained on SAA requirements and emergency procedures. For details, see *Training Requirements and Records: Hazardous Waste Generators, TSDs and Collection Facilities (WA-099)*.
- Include SAAs in the CAA weekly inspection program.
- Handle containers in a manner that prevents ruptures and leaks.
- Provide secondary containment (e.g., spill pallets) in SAA areas.

Common Scenarios

SCENARIO: A facility runs several process lines leading to a similar POG location. One process generates waste that is accumulated in SAA-1 and the adjacent process generates waste that is accumulated in SAA-2. Can the two SAAs be adjacent to each other?

The EPA developed the satellite accumulation rules to allow generators the flexibility of managing small volumes of hazardous waste and not for circumventing regulatory responsibility. An example of “circumventing regulatory responsibility” would be placing 55-gallon drums five feet apart along a wall of the facility, and outside of the immediate control of the operator, and calling each drum location an individual SAA area. This could allow for large accumulation of waste while avoiding the CAA requirements. The EPA and the DNR would consider this scenario to be one SAA rather than a row of distinct SAAs.

Alternatively, distinct SAA areas receiving different wastes from a single process line, when clearly delineated and justified by personnel, could be placed adjacent to each other.

It is important to note the SAA is not the container, but rather an area defined to place container(s) receiving hazardous wastes. Once designated, the SAA can include multiple containers which, cumulatively, are subject to the volume limits previously outlined. Federal and state regulations do not require the SAA be designated in any specific way. However, it is good operating practice to make it clear to both the generator’s employees and to the inspecting agency that satellite accumulation is occurring. Common practices would include signage, marking the floor with paint or tape and protective barriers.

In short, the generator should be able to explain to an inspector why the chosen SAA configuration meets the interests of safety, practicality, and convenience, without constituting circumvention of CAA requirements.

SCENARIO: If hazardous waste is taken from a small container (e.g., a beaker) to a large container (e.g., a 55-gallon drum), is the small container considered a satellite accumulation container?

In cases where there are multiple points of generation within the same SAA, movement or consolidation within the SAA is permissible as long as the waste remains “at or near” the POG and “kept under control of the operator in charge of the waste-generation process.” For example: Certain facility operations, such as manual circuit board cleaning, hazardous waste generated in a laboratory, or certain types of soldering operations may sometimes entail generating very small quantities of the same type of hazardous waste at individual workstations.

These small containers are sometimes referred to as “day cans,” but this term is not defined in federal or state regulations.

Such small accumulations of hazardous waste may be periodically collected by someone other than the immediate workstation personnel, aggregated in a container which is operated as a SAA in the same room or work area, and then eventually removed to a CAA. In such instances, either the workstation personnel or the person collecting the waste from the individual workstations may be regarded as the operator of the process, since one or the other typically will be aware of the activity during operating hours. Waste aggregation in a total volume of 55 gallons or less may be regarded as legitimate satellite accumulation so long as it is done in a way that satisfies the intent of the satellite accumulation allowance as discussed above and is done at or near the POG.

SCENARIO: A facility has a larger container, such as a cubic yard box, tote, sludge bin or roll-off box, for collecting a process waste. Is this a SAA or a CAA container?

To meet SAA requirements, the container cannot accumulate more than 55 gallons of non-acute hazardous waste or one quart of acute hazardous waste. If you fill the larger container past this accumulation limit, the container will be considered in violation of SAA accumulation requirements. It is recommended these containers be managed as CAA containers, requiring them to be labeled as

hazardous waste, dated with the start date of when waste was first placed in the container, and kept closed when waste is not actively being added to or removed from the container.

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](#), enter “hazardous waste requirements” in the subject field, and choose the appropriate county contact.

The EPA document RO [14703](#), *Frequently Asked Questions about Satellite Accumulation Areas*, contains more information.

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