

Common Hazardous Waste Violations

Guidance on Hazardous Waste Requirements



Introduction

To improve facility compliance with hazardous waste regulations the department has compiled the following list of common violations based on hazardous waste inspections in Wisconsin. These common violations fall into the following categories:

- waste determinations
- marking and labeling
- accumulation (storage)
- container management
- manifests and land disposal restrictions
- emergency preparedness and contingency plans
- training

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

These violations can be avoided by setting up standard operating procedures and by training all facility employees and contractors. The categories of violations are outlined below, along with information and resources to help prevent violations. Many of these requirements are directly related to employee safety and environmental protection through the safe management of hazardous wastes.

Waste Determination Violations

Properly identifying your waste streams is the first step towards correct waste determinations, manifesting, and disposal for both non-hazardous wastes and hazardous waste. The waste determination methods and process can be found in DNR publication *Waste Determination & Recordkeeping* (WA-1152).

Common violations include:

- Misclassifying waste as non-hazardous, which leads to improper shipment and disposal violations.
- Failure to conduct a waste determination. Waste streams commonly misidentified: filters, wipes, fluff, floor sweepings, mop water, grinding dusts and shot blast.
- Failure to document waste determination information.
- Relying solely on “generator knowledge” with no data or documented information.

It is the responsibility of the generator to make a correct waste determination and retain the supporting documentation. [s. NR 662.011]

Reviewing chapter NR 661, Wis. Adm. Code, will help you determine if a hazardous waste is *excluded* from regulation as a hazardous waste, if it is a *listed* hazardous waste, or if it is a *characteristic* hazardous waste. It is recommended that a re-evaluation of waste determinations occur following

process or material changes, or if the waste is highly variable, to verify that the original waste determination remains valid.

Failure to characterize, or properly characterize, the waste

A generator can apply acceptable knowledge of the hazardous characteristics of the solid waste, considering the materials or the processes involved, to determine if the solid waste is a hazardous waste. However, it is risky to declare a waste to be a non-hazardous waste based solely on generator knowledge.

For example, a company makes a product out of 5 percent leaded brass, and the floor sweepings likely contain brass millings which could be characteristically hazardous due to the lead content. In this case, the generator could apply knowledge to determine that the floor sweepings **are** a hazardous waste. However, the generator could **not** apply knowledge to determine that the floor sweepings **are not** a hazardous waste. In this example, the best way to determine if the floor sweepings are not a characteristically hazardous waste would be to collect a representative sample of the floor sweepings and submit the sample for analytical testing at a Wisconsin certified laboratory. [Subchapter C of NR 661]

Marking and Labeling Violations

Marking and labeling requirements are necessary to ensure that waste is identified and managed properly. Without proper labeling, hazardous waste may be mismanaged as non-hazardous waste, or as the wrong type of hazardous waste, which could cause harm to human health and the environment.

Failing to mark containers and tanks with the words “hazardous waste” and contents

While the words “Hazardous Waste” on containers provides some information regarding the contents, this information fails to describe the specific hazards of the contents and what risk these wastes could pose to human health and the environment. As of Sept. 1, 2020, generators must also indicate the hazards of the contents of the container or tank so that the hazardous wastes are managed in a safe manner by employees, transporters, downstream handlers, emergency personnel, and state inspectors. [NR 662.016(2)(f)1. for SQGs, NR 662.017(1)(e)1. for LQGs]

Mark with the words “hazardous waste” and indicate the contents using any of several established methods, such as:

- U.S. Environmental Protection Agency (EPA) hazardous waste characteristic(s) (ignitable, corrosive, reactive, or toxic);
- Hazard class labels consistent with the U.S. Department of Transportation (DOT) requirements at 49 CFR Part 172 Subpart E (labeling);
- Labeling consistent with the U.S. Occupational Safety and Health Administration (OSHA) Hazard Communication Standard at 29 CFR Part 1920.1200;
- Chemical hazard labels consistent with National Fire Protection Association (NFPA) code 704;
- Hazard pictograms consistent with the United Nations’ Global Harmonized System (GHS); or
- Other marking or labeling commonly used nationwide in commerce that would alert workers and emergency responders to the nature of the hazards associated with the contents of the containers.

Failing to mark the accumulation start dates on containers or tanks in CAAs

A **central accumulation area** is a designated area or areas where hazardous waste is accumulated with 90-day, 180-day or 270-day time limits depending on the generator status (large or small quantity generator) of the facility.

- If a container is kept in a central accumulation area (CAA), the container must be marked with the date when the first drop of hazardous waste is added to the container. [s. NR 662.016(2)(f)1.c. for SQGs, s. NR 662.017(1)(e)1.c. for LQGs]
- The date when hazardous waste is first placed in a tank also needs to be recorded in a logbook or on the tank. Tracking of the waste accumulated in a CAA alerts the generator when the facility is getting close to exceeding the accumulation time limit. [s. NR 662.016(2)(f)2.c. for SQGs, s. NR 662.017(1)(e)2.c. for LQGs].

The DNR and the U.S. EPA view the accumulation of hazardous waste beyond the generator's allowable accumulation period as a serious violation.

Accumulation (storage) Violations

Hazardous wastes accumulated in containers near process lines may be subject to reduced regulatory requirements when the waste is managed in accordance with satellite accumulation requirements. Specifically, the amount of hazardous waste allowed to accumulate in the satellite areas is limited and the area must be under the direct control of the process operator.

DNR publication *Satellite Accumulation Requirements for Hazardous Waste Management (WA-1856)* has more information.

Satellite accumulation area is a designated area at or near the point of generation where hazardous waste is initially accumulated in containers, prior to consolidating at the designated central accumulation area, and kept under the control of the operator of the process generating the waste. [s. NR 662.015(1)]

Accumulating too much waste in one satellite accumulation area

The satellite accumulation area provision is optional and allows you to accumulate waste in containers, in an individual SAA, limited to: [s. NR 662.015(1)]

- no more than 55 gallons of non-acute hazardous waste, or
- no more than 1 quart of liquid acute hazardous waste, or
- no more than 2.2 pounds of solid acute hazardous waste

As of Sept. 1, 2020, these containers must also be labeled with the words “hazardous waste” and the contents of the container. See the *Marking and Labeling Violations* section for hazard indications.

Within three consecutive calendar days from the time the volume threshold has been exceeded in a SAA, the container(s) must be either transported off-site to a designated facility or moved to a CAA. [s. NR 662.015(1)(f)]

Accumulating for greater than 90 or 180/270¹ days

Generators typically do not have the same secure storage areas and stringent management systems as commercial hazardous waste storage facilities, which means generators are required to ship the hazardous waste before their accumulation time period ends or their accumulation volume is exceeded.

- Large quantity generators (LQGs) may accumulate hazardous waste for up to 90 days and are not subject to an accumulation volume limit. [s. NR 662.017(1)]
- Small quantity generators (SQGs) may accumulate hazardous waste for up to 180/270¹ days and may not exceed 13,200 pounds of non-acute hazardous waste. [s. NR 662.016(2)]

¹ The 270 days applies to SQGs when the generator must transport this waste, or offer this waste for transportation, over a distance greater than 200 miles. [s. NR 662.016(3)]

- Very small quantity generators (VSQGs) do not have an accumulation time limit, but they may not accumulate more than 2,205 pounds of non-acute hazardous waste at any given time. [s. NR 662.014(1)(d)]

If hazardous wastes must remain on-site for longer than the allowable limits due to unforeseen, temporary and uncontrollable circumstances, an extension of up to 30-days may be granted at the discretion of the department on a case-by-case basis. An application for an accumulation time extension request can be found on the DNR's Hazardous Waste Notifications web page. [s. NR 662.016(4) for SQGs, s. NR 662.017(2) for LQGs]

Container Management Violations

Open containers

Keeping containers of hazardous waste closed is extremely important, as open containers do not:

- 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.



The container may also be opened when temporarily venting is necessary for proper operation of equipment or to prevent dangerous situations such as build-up of extreme pressure. [s. NR 662.015(1)(d)]

A container accumulating liquid hazardous wastes in either a CAA or SAA must be kept closed both to prevent the escape of vapors and to prevent spills, except when wastes are being added, removed or consolidated in the container. [s. NR 662.014(4) for VSQGs, s. NR 662.016(2)(b)3.a. for SQGs, s. NR 662.017(1)(a)4.a. for LQGs]

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, paint filters, and discarded pharmaceuticals. For non-liquid hazardous waste, the department considers the container closed when there is complete contact between the lid and the rim of the container, except when waste is being added to or removed from the container. When in doubt as to whether a container is properly closed, consult DNR publication *Closed Container Guidance for Hazardous Waste Generators* (WA-1342).

Using the correct container

One of the most important aspects of hazardous waste management is ensuring the hazardous waste is compatible with the container. [s. NR 662.014(4) for VSQGs, s. NR 662.016(2)(b)2. for SQGs, s. NR 662.017(1)(a)3. for LQGs]

For example: wastes that are acidic can cause a reaction with a metal drum, which may cause the metal drum to fail and release (spill) the hazardous waste. Spills of hazardous waste can be costly and place employee safety at risk. Each container must also meet U.S. DOT standards when being shipped off-site. [49 CFR Parts 173, 178, and 179]

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Plastic or plastic-lined drums are good solutions for corrosive wastes. Metal drums are a good choice for non-corrosive and flammable liquids.

Manifests and Land Disposal Restrictions

Manifests are the primary component of the “cradle to grave” regulation of hazardous wastes in the United States, as they provide a paper/electronic trail of your hazardous waste generation, treatment, storage and disposal. When completed, the manifest identifies the type and quantity of the hazardous waste transported; provides instructions for handling and management of the hazardous waste; and documents signatures for the generator, transporters and designated facility.

When signing a manifest, the signature certifies the information is accurate, and:

- If operating as an LQG facility, certifies that a waste minimization program is in place; or
- If operating as an SQG, certifies that a good faith effort was made to minimize the amount of hazardous waste generated. [s. NR 662.020 and 662.027]

All paper manifests need to be legibly printed or typed.

EPA’s e-Manifest system, launched June 30, 2018, allows electronic manifests to be used to document the “cradle to grave” transport of hazardous wastes. All final manifests are stored in the nationwide e-Manifest database.

See DNR publication Hazardous Waste Manifests (WA-1176) for information on the e-Manifest system and how to register to view manifests in the system.

Failure to maintain copies

Final manifest records can be maintained either as paper or electronic copies in EPA’s e-manifest system. During an inspection, the facility must be able to provide copies of these manifests or demonstrate access to the EPA’s e-Manifest system, for 3 years’ worth of manifests, and it can be helpful to have multiple employees with access to these manifests. [s. NR 662.040(1); 291.91(2), Wis. Stats.]

Incorrect or absent waste codes

Ensure that the hazardous waste codes used on the manifest are consistent with the hazardous waste codes used in the waste determination documentation. Hazardous waste codes are located in subchapters C & D of chapter NR 661, Wis. Adm. Code. [NR 662.020]

As of Sept. 1, 2020, manifest waste codes for hazardous waste pharmaceuticals have been consolidated to “PHRM”.

Failure to produce LDRs

The notification requirement for land disposal restrictions ensures that hazardous waste cannot be placed on the land (e.g., landfill, surface impoundment) until the waste meets the LDR treatment standards. These treatment standards reduce the mobility or toxicity of the hazardous constituents in the waste.

Section NR 668.07(1)(a), Wis. Adm. Code requires SQGs and LQGs to determine if the hazardous waste needs to meet the LDR treatment standards prior to land disposal. This determination is typically done concurrently with the hazardous waste determination required under s. NR 662.011, Wis. Adm. Code.

An initial one-time LDR notice is required for any waste that is hazardous waste at the original point of generation, even if it exits RCRA under ss. NR 661.0002 to 661.0004, Wis. Adm. Code. [s. NR 668.07(1)(g)]

LDR treatment standards only apply to waste that is a hazardous waste at the POG. If the hazardous waste is also a characteristic hazardous waste, the generator must comply with s. NR 668.09(1), Wis. Adm. Code, which requires a generator to determine the underlying hazardous characteristics (UHCs) of their characteristic hazardous waste. When sending waste off-site that is subject to the LDR program a notification and /or certification must accompany the waste.

- If a waste or contaminated soil **does not meet applicable treatment standards**, the generator must notify the receiving facility in writing using an LDR notification form, which would accompany the manifest if the waste is still a hazardous waste. This notifies the receiving facility that the waste requires treatment prior to being land disposed. [s. NR 668.07(1)(b)]
- If the waste or contaminated soil **meets the applicable treatment standard**, the generator must submit a signed certification stating that the waste meets the applicable treatment standards. This certification accompanies a copy of the LDR notification form. [s. NR 668.07(1)(c)]

There is no standardized notification form for LDRs. If you create your own form, be sure to include the information identified in s. NR 668.07(1), Wis. Adm. Code.

SQGs and LQGs must retain the initial LDR notification and certification paperwork for each facility that the waste was shipped to for 3 years. A subsequent LDR notification and certification is needed when either the waste or the receiving facility changes. Copies of the LDR notification and certification paperwork is currently not accepted in EPA's e-Manifest system and must be retained by the generator and available for review during site inspections. [s. NR 668.07(1)(h)]

It is recommended that the initial LDR notification and certification paperwork be kept with the waste determination documents instead of the manifest.

Emergency Procedures and Contingency Plans

Outdated or missing emergency procedures

Emergency procedures are needed to keep facility personnel safe and to protect the facility and the environment from further damage in case of an emergency. Sharing information with local emergency responders, and providing adequate aisle space and emergency equipment, are required for both SQG and LQG facilities.

Requirements for emergency procedures for SQGs can be found in s. NR 662.016(2)(i) and for LQGs in subch. M of ch. NR 662, Wis. Adm. Code.

LQGs are responsible for providing initial training and annual training under s. NR 662.017(1)(g) 3., Wis. Adm. Code, which requires facility personnel to be able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems.

Outdated or missing contingency plans

The contingency plan is meant to be used in emergency situations related to hazardous waste (e.g., fires, explosions, spills). While most facilities train employees on how to respond correctly to routine spills and incidents, a written plan can assist personnel in following logical, safe, and straightforward actions in response to emergencies, based on specific site layout, activities, and waste types.

The most common emergency preparedness and contingency plan violations are:

- Outdated contact information for the emergency coordinator(s) [s. NR 662.261(4) for LQGs]
- Lack of immediate access to internal or external alarms in hazardous waste accumulation areas [s. NR 662.252]
- Failure to obtain, test, and maintain emergency equipment [s. NR 662.253 for LQGs]
- Lack of arrangements with emergency services (police, fire, emergency response contractors) [s. NR 662.016(2)(h)6.a. for SQGs, s. NR 662.256 for LQGs]
- Inadequate identification of generated hazardous wastes, storage locations, and associated hazards [s. NR 662.262(2) for LQGs]
- Inadequate description of the location and types of emergency equipment [s. NR 662.261(5) for LQGs]

An annual review or update to the document, before your annual employee training session each year can serve as a reminder to check all information in the plan. It is recommended that the specifics outlined within your facility contingency plan be part of your required annual training.

As of Sept. 1, 2020, when LQGs are updating their contingency plan, they must prepare or update the **quick reference guide** and submit it to the local emergency responders (i.e., police departments, fire departments, hospitals and state and local emergency response teams and the local emergency planning committee, as appropriate). [s. NR 662.262(3)]

Training

Inadequate training

Employees managing hazardous waste need to be trained to understand proper waste management practices. The most common training violations are:

- Failure to provide adequate training for employees that actively manage hazardous waste [s. NR 662.016(2)(i)3. for SQGs, NR 662.017(1)(g) for LQGs]
- Not providing training on implementation of the contingency plan [NR 662.017(1)(g)1b. for LQGs].
- Failure to provide training on the emergency evacuation elements of the contingency plan to **all facility personnel** [s. NR 662.016(2)(i)3 for SQGs, s. NR 662.017(1)(g) for LQGs]

See DNR publication *Training Requirements and Records (WA-099)* for more details.

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.

PUB-WA-850 2020

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