Pursuant to ch. 227, Wis. Stats., the Wisconsin Department of Natural Resources has finalized and hereby certifies the following guidance document.

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DNR CERTIFICATION

I have reviewed this guidance document or proposed guidance document and I certify that it complies with sections 227.10 and 227.11 of the Wisconsin Statutes. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is not explicitly required or explicitly permitted by a statute or a rule that has been lawfully promulgated. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is more restrictive than a standard, requirement, or threshold contained in the Wisconsin Statutes.

Signature: 
Date: October 16, 2019
Introduction

Common violations identified during hazardous waste inspections include issues pertaining to the following categories:

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

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 future violations.

Waste determinations

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

Common violations include:

- Failure to conduct a waste determination (examples: filters, wipes, fluff, floor sweepings)
- Failure to document the waste determination
- Relying solely on “generator knowledge” with no data or documented information
- Misclassifying waste as non-hazardous, which leads to improper shipment and disposal violations.

Review ch. NR 661, Wis. Adm. Code, to determine if a hazardous waste is excluded from regulation as a hazardous waste, is a listed hazardous waste or is a characteristic hazardous waste. Re-evaluation of waste determinations should occur following process or material changes, or if the waste is highly variable, to verify that the original waste determination remains valid. Additionally, the Department of Natural Resources (DNR) recommends that generators conduct a recharacterization of each waste stream every 1-3 years. It is the responsibility of the generator to make a correct waste determination and retain the supporting documentation. [NR 662.011]

Failure to characterize, or properly characterize, the waste

A generator can apply 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. While it is acceptable to apply generator knowledge in classifying a waste to be a hazardous waste, it is risky to declare a waste to be a nonhazardous 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 contained in the brass. 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 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.

## Marking and labeling violations

Marking and labelling requirements are vitally important to ensuring 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”

While the words “Hazardous Waste” on containers provides some measure of 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. It is valuable for employees, transporters, downstream handlers, emergency personnel, and state inspectors to know as much as possible about the potential hazards of the contents in containers being accumulated, transported, and managed, whether on site and/or off site, so that the hazardous wastes are managed in a safe manner.

The DNR recommends generators indicate the hazards of the contents of the containers 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 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

If a container is kept in the central accumulation area (CAA) the container must be marked with the date when the first drop of hazardous waste is added to the container. The date when hazardous waste is first placed in a tank also needs to be recorded in a log book or on the tank. The DNR and the U.S. EPA view the accumulation of hazardous waste over the generator’s allowable accumulation period as a serious violation.
Accumulation (storage) violations

Satellite accumulation allows reduced regulatory requirements for hazardous wastes routinely accumulated in containers near process lines, by limiting the amount of hazardous waste allowed to accumulate in the satellite areas and requiring that the area be under the direct control of the process operator. Central accumulation time limits are variable based on the type of generator.

Accumulating too much waste in one satellite accumulation area
The satellite accumulation area (SAA) provision is optional and allows you to accumulate, in an individual SAA, no more than 55 gallons of non-acute hazardous waste or no more than 1 quart of acute hazardous waste in containers. These containers must be maintained at or near the point of generation (POG) and under the control of the operator of the process generating the waste.

Within 3 consecutive calendar days from the time the volume threshold has been reached in a SAA, the container(s) must be either transported off-site to a designated facility or moved to a CAA. The 3-calendar day time applies only to moving the hazardous waste out of a SAA. It does not apply to other management requirements such as placing the accumulation start date on the container.

Accumulating for greater than 90 or 180/270\(^1\) 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 the cumulative volume of hazardous waste poses additional hazards. Large quantity generators (LQGs) may accumulate hazardous waste for up to 90 days. Small quantity generators (SQGs) may accumulate hazardous waste for up to 180/270 days. Very small quantity generators (VSQGs) do not have a time limit, but they may not accumulate more than 2,205 pounds of hazardous waste at any given time. These accumulation periods allow you to save up enough hazardous waste to make shipment more economical.

The DNR may grant an extension if hazardous wastes must remain on-site for longer due to unforeseen, temporary and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the DNR on a case-by-case basis.

\(1\) 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.

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**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. A generator could have more than one CAA and that “central” does not denote a physical location or indicate that the generator must establish the CAA in a location that is centrally located within the site.

**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.
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.

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. The DNR generally considers containers that accumulate free liquids or liquid hazardous wastes to be closed when all openings or lids are secure, closed and latched, except when wastes are being added to or removed from the container. If you have a liquid hazardous waste at a SAA, consider using a safety funnel with a latch (the type that screws into the bunghole) to securely close the container to prevent spillage or release of vapors.

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 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. When in doubt as to whether a container is properly closed, consult WA-1342, Closed Container Guidance for Hazardous Waste Generators.

Using the Correct Container
One of the most important aspects of hazardous waste management is containing the waste in the correct type of container. For example: Wastes that are acidic can cause a reaction with a metal drum, which may cause the metal drum to fail and release the hazardous waste resulting in a spill. Spills of hazardous waste can be costly and place employee safety in jeopardy. Each container must also meet U.S. DOT standards when being shipped off-site.

Plastic or plastic-lined drums are good solutions for corrosive wastes. Metal drums are an excellent 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 a LQG facility, certifies that a waste minimization program is in place. All paper manifests need to be legibly printed or typed.

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

See WA-1176, Hazardous Waste Manifests for information on e-Manifest and how to register to view manifests in the system.
Failure to maintain copies
Facilities must maintain paper or electronic copies of the initial manifests when hazardous waste is removed from the site by a licensed transporter. Final manifest records can be maintained either as paper, electronic copies received from the TSD facility, or electronically stored in EPA’s e-manifest system. If using the EPA’s e-Manifest system to maintain final manifest records, the facility must be able to access and review manifests with the inspector during the inspection. Therefore, it is important to have multiple employees with access to the system to avoid a violation.

Incorrect or absent Waste Codes
Ensure that the hazardous waste code used on the manifest are consistent with the hazardous waste codes used in the waste determination documentation. The hazardous waste codes are located in subch. C & D of NR 661.

Failure to produce LDRs
The land disposal restrictions (LDR) program ensures that hazardous waste cannot be placed on the land (e.g., landfill or surface impoundment) until the waste meets specific treatment standards. These treatment standards reduce the mobility or toxicity of the hazardous constituents in the waste. Both SQGs and LQGs must determine if their hazardous waste is subject to LDR at the point of generation by testing or applying knowledge.

- If a waste does not meet applicable treatment standards, the generator must notify the TSD facility in writing using the LDR notification form, which would accompany the manifest. This notifies the TSD facility that the hazardous waste requires treatment prior to being land disposed.
- If the waste already 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.

Generators need to retain only the initial LDR notification and certification paperwork for each TSD facility that the waste was shipped to. 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 will not be accepted in EPA’s e-Manifest system and must be retained by the generator and available for review during site inspections.

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

Emergency Preparedness and Contingency Plans

Outdated or missing emergency preparedness and prevention planning information
Emergency preparedness and prevention equipment and protocols are required to keep employees safe. Knowing what to do in the event of an emergency can save lives and reduce costs. Generators are responsible for providing annual training on when and how to call for emergency services and evacuation procedures in case of a fire, explosion or release of hazardous waste. Sharing information with local emergency responders, providing adequate aisle space and emergency equipment is required for both SQG and LQG facilities.

The most common emergency preparedness and prevention planning violations are:
- Outdated contact information for the emergency coordinator(s).
• Lack of immediate access to internal or external alarms in hazardous waste storage area.
• Failure to obtain, test, and maintain emergency equipment.
• Lack of arrangements with emergency organizations (police, fire, emergency response contractors).

Outdated or missing contingency plans
The contingency plan is meant to be used in emergency situations related to hazardous waste (e.g., fires, explosions, spill). 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 site specifics and types of waste on site.

The most common contingency plan violations are:
- Outdated contact information for the emergency coordinator(s);
- Inadequate identification of generated hazardous wastes, storage locations, and associated hazards;
- Inadequate description of the location and types of emergency equipment.

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.

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;
- Not providing training on implementation of the contingency plan
- Failure to provide training on the emergency evacuation elements of the contingency plan, to all facility personnel.

Requirements for contingency plans required for LQGs can be found in s. NR 662.034(1)(d), Wis. Adm. Code.

Go to WA 099 Training Requirements and Records for details.
DNR Contact Information

For more information on this subject, including other publications, staff contacts and administrative codes and statutes, search by topic or WA publication number at dnr.wi.gov, or contact Waste & Materials Management staff. Staff contacts for DNR regional offices can be found by searching “waste regional office.”

Mailing address: DNR Waste & Materials Management Program, PO Box 7921 Madison, WI 53707
Email: DNRWasteMaterials@Wisconsin.gov

Disclaimer: This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

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