

Commercial and Residential Paint Removal and Disposal

Guidance on Hazardous Waste Requirements



Introduction

It is important that the removal, management and disposal of paint residues containing toxic metals (e.g., lead, chromium and cadmium) be done properly to prevent any adverse effects on human health and the environment. Exposure to lead adversely affects the body's nervous system, and chromium and cadmium are suspected to be human carcinogens. This document focuses on the wastes generated during commercial renovation and remodeling projects and provides some additional considerations and requirements pertaining to these activities.

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

Historically, toxic metals such as lead, chromium and cadmium were added to paints and primers to increase their durability. Although lead-based paints were banned for residential use in 1978, they are still allowed in commercial and industrial applications. Therefore, commercial and industrial paints sold today may not only contain lead but also chromium and cadmium.

U.S. Environmental Protection Agency and Wisconsin Department of Health Services regulations require renovators and painters to assume that the paint on all pre-1978 residential and child-occupied facilities (e.g., day care centers and schools) contains lead, unless proper testing proves the paint is lead-free. Training, certification and special work practices are required for persons providing renovation, repair or painting services on or in these structures. For contractor requirements, visit DHS's webpage. Go to dhs.wi.gov and search "Lead-safe Wisconsin."

The Wisconsin Department of Natural Resources' Drinking Water and Groundwater (DG) program regulates painting of the interior of water towers and other structures that are used for potable water supply. Approval from the DG program is required prior to conducting all such interior painting projects. For more information, go to dnr.wi.gov and search "Public Water System Plan Review."

Applicability

Commercial buildings and structures with metal-bearing paints

Paint scrapings and abrasive or water blasting wastes from water towers, bridges and other commercial, industrial, and municipal buildings or structures are solid waste and may be hazardous waste. Persons generating these wastes are required to determine if these wastes are hazardous wastes to ensure proper management and disposal.

When evaluating the hazards of the paint to be removed, consider that asbestos was added to interior and exterior paints and textured surfacing materials prior to the 1980s. The textured surfacing materials were applied to walls, ceilings and building exteriors and then painted. Asbestos can be found in "dum-dum" paints on commercial structures, water towers and bridges and in the silver paint on mobile homes. Paint waste from these projects should be tested for asbestos. If the paint waste contains asbestos, contact the DNR Asbestos program. Go to dnr.wi.gov and search "asbestos." In addition, DHS asbestos certification requirements may apply to this type of work. Learn more by contacting the

DHS Asbestos and Lead Certification program by calling 608-261-6876 or by visiting the DHS website.

Paint removal projects may generate substantial amounts of dust. The DNR Air Management program regulates the release of fugitive dust emissions and hazardous air pollutants, such as toxic metals, that occur during paint removal and reapplication on residential and commercial structures.

Residential buildings and structures with metal-bearing paints

Most residential lead wastes are considered household waste for disposal purposes and are not subject to hazardous waste regulation [s. NR 661.0004(2)(a), Wis. Adm. Code]. “Household waste” includes waste from single and multifamily residences, hotels, motels, bunkhouses, ranger stations, crew quarters, picnic grounds and day-use recreational areas. Lead paint waste from households should be collected in plastic bags, sealed and placed in the household trash or taken to a permanent household hazardous waste collection facility directly from the job site. Contact the county in which the work is being completed for information on permanent household hazardous waste collection locations.

Lead paint waste from renovation or repair of day care facilities and schools is not considered household waste and is subject to applicable hazardous and solid waste rules summarized in this guidance document.

Waste Determination

This section only applies to paint removal operations that are not covered by the household hazardous waste exclusion in s. 661.0004(2)(a) Wis. Adm. Code.

A hazardous waste determination must be made when the paint waste is generated [s. NR 662.011 Wis Adm. Code]. The DNR recommends making this hazardous waste determination before starting the paint removal operation.

A waste determination may be made based on:

- knowledge of the paint being removed, or
- through analysis of paint waste sampled to determine if lead or other toxic metals are present.

Analyses that are done for waste determinations, including the toxicity characteristic leaching procedure (TCLP), should be completed by a laboratory certified by Wisconsin’s Lab Certification program prior to disposal of the paint waste. A list of certified labs is available on the DNR’s website. Go to dnr.wi.gov and search “laboratories.”

Waste generated during paint removal operations is a hazardous waste if it exceeds the maximum concentration levels for the toxicity characteristic using the TCLP analysis for certain metals. See Table 1 of s. NR 661.0024, Wis. Adm. Code, for regulatory levels of metals.

TCLP is a laboratory analysis that measures how much of the toxic metal leaches from the waste under certain conditions and has the potential to contaminate groundwater.

A generator of solid and hazardous waste streams:

- may choose to manage the paint waste as a hazardous waste instead of having TCLP analysis performed by a certified laboratory.
- is responsible for the waste from the point of generation until it is finally disposed of in a licensed or permitted waste facility.

Only nonhazardous waste may be disposed of in a solid waste landfill. If the paint waste is determined

to be nonhazardous waste, it is recommended that lab analysis and disposal receipts be kept.

Paint-removing agents can also make the waste a hazardous waste. Potential waste streams that would require a waste determination and which may require additional management include:

- Chemical stripping agents that contain caustic materials to dissolve the paint. These do not contain toxic or flammable solvents, but they may be corrosive hazardous waste when disposed of. For more information on characteristic and listed hazardous waste, see NR 661 subch. C. and s. NR 661.31, Wis. Adm. Code, at http://docs.legis.wisconsin.gov/code/admin_code/nr/600/661.pdf
- Chemical stripping agents or surface treatments. These may contain organic solvents that are listed as hazardous waste, requiring the paint waste to be managed as hazardous waste even if the paint doesn't contain toxic metals.

The use of more environmentally friendly, non-hazardous paint removal products, such as soy-based products, can help minimize the generation of hazardous waste.

- When water blasting is used to remove the paint from the structure, the paint chips and other solid residues should be separated from the water, collected and properly managed according to the applicable hazardous waste or solid waste requirements. The water would also need a waste determination prior to disposal.

For additional information on waste determination, see the guidance document *Waste Determination and Recordkeeping Requirements* (WA-1152). Go to dnr.wi.gov and search "WA-1152."

Waste Management

Contractors must follow all applicable hazardous waste generator requirements under ch. NR 662, Wis. Adm. Code, for the proper management and disposal of all hazardous waste consolidated at their central business location, whether the waste was generated at a household or at a commercial project. Hazardous waste must be containerized, transported and disposed of in accordance with all applicable portions of chs. NR 662 and 663, Wis. Adm. Code. These regulations are determined in part by the status or classification of the generator.

There are three hazardous waste generator categories:

1. very small quantity generators (VSQG);
2. small quantity generators (SQG); and
3. large quantity generators (LQG).

The table below lists generation and storage limits for each generator category. As a reference, 220 pounds equals approximately half of a 55-gallon drum.

	VSQG	SQG	LQG
Monthly generation limit of non-acute hazardous waste	<220 pounds	<2,205 pounds	No limit
Monthly generation limit of acute (P-listed) hazardous waste	<2.2 pounds	<2.2 pounds	No limit
Onsite accumulation limit	2,205 pounds	13,230 pounds	No limit

For VSQG facilities, the container must be labeled "Hazardous Waste" and the container must be:

- compatible with the waste (which will depend on the physical and chemical state of the waste);
- kept in good condition; and

- kept closed except when it is necessary to add or remove waste.

Additionally, containers must be marked with an indication of the hazard when a VSQG sends waste to a large quantity generator under the same ownership as the VSQG, or when the waste is generated during a notified episodic event. [ss. NR 662.014(e) and (f); ss. NR. 662.232(1h)(d)1.b., Wis. Adm. Code]

If the amount of hazardous waste generated during the project is greater than the VSQG limits in the table above, additional requirements apply, including:

- Obtaining a generator EPA ID# using Form 8700-12
- Container type and labeling
- Use of the Uniform Hazardous Waste Manifest
- Hiring a licensed hazardous waste transporter to ship the waste to a treatment, storage and disposal facility or hazardous waste landfill
- Annual reporting and waste generation fees

Additional information on generator requirements is provided in the Quick Reference Guide: Hazardous Waste Generator Regulatory Requirements (WA-1821). Go to dnr.wi.gov and search “WA-1821.”

Disposal

Only nonhazardous waste may be sent to a licensed solid waste landfill. If the paint waste is determined to be non-hazardous waste, it is recommended that the generator keep lab analysis and disposal receipts.

The generator of a hazardous waste is responsible for the waste from the point of generation until it is finally disposed of in a licensed or permitted hazardous waste facility. In Wisconsin, hazardous waste must be transported to a licensed treatment, storage or disposal facility, or sent offsite to be reclaimed per s. 291.21 (9), Wis. Stats., and s. NR 670.001 (3), Wis. Adm. Code.

Additional Considerations

Local units of government, including health departments, may have additional requirements that apply to paint removal activities. Check with the county and municipality for applicable local ordinances.

Commonly used methods to remove paint – chemical stripping, high-pressure water blasting or high-pressure abrasives – can cause harm to human health or the environment if the wastes generated during the removal process are not properly contained and managed.

Containment systems best practices

- For paint removal projects, use of a containment system can prevent the wastes from contaminating soils or surface waters or from becoming airborne and dispersing. Using a High Efficiency Particulate Air (HEPA) filter vacuum may reduce the need for containment structures.
- A containment system may be as simple as a ground cover (e.g., a tarp), while some projects may require a total enclosure. Place paint waste collected in the containment system into closed containers and label them to identify the contents.
- If the paint to be removed is lead-based or contains other toxic metals, install a containment system to prevent the release of blasting waste and paint overspray to the air. Discontinue paint removal operations if dust is escaping into the ambient air. DNR staff can help determine how to comply with the air requirements. Find the DNR Air Management program contact for the county in which the project is occurring. Go to dnr.wi.gov and search “air quality contacts.”

High-pressure water blasting

When using high-pressure water blasting to remove paint from residential and commercial structures, it is essential that a proper containment system be used to capture the water blast material. The resulting wastewater must be managed according to wastewater regulations. Discharges to a storm sewer or other water body are prohibited unless a Wisconsin Pollutant Discharge Elimination System (WPDES) permit has been issued by the DNR. Discharge to the sanitary sewer must be approved by the local sewerage authority or the DNR, as appropriate. Wastewater discharged to the ground has the potential to reach surface water or groundwater and may be subject to the general permitting requirements of ch. 283, Wis. Stats.

Abrasives

If using high-pressure blast abrasives (with sand, corncob, walnut shells or glass beads) to remove paint from structures, a closed loop system that contains dust and debris is needed to prevent a release to the air and to allow for proper disposal of the waste. If this process is used, the paint chips and other solid residues generated must receive a hazardous waste determination and be properly managed as either a hazardous waste or as a nonhazardous waste.

DNR 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.

Mailing address: DNR Waste and Materials Management Program, PO Box 7921 Madison, WI 53707

Email: DNRWasteMaterials@Wisconsin.gov

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***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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