



Hazardous Waste Management for Healthcare Facilities

Common Violations and

HW Pharmaceuticals Sewering Ban

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Specialist
HW Decoded Webinar
June 12, 2019



Healthcare facilities

- Hospitals
- Clinics
- Nursing homes (5 or more beds)
- Community-based residential facilities
- Residential care apartment complex with centrally managed medications
- In-patient hospice care

<https://dnr.wi.gov/topic/HealthWaste/facility.html>



Definition of terms

- Solid waste
- Infectious waste
- Medical waste
- Hazardous waste
- Acute hazardous waste
- HW pharmaceutical



Definitions

- **Solid waste** is any material no longer used for its originally intended purpose, that will be discarded, treated to reclaim its original properties or processed to be used for an alternative purpose. [Chapter NR 661.02 Wis. Adm. Code]
- **Medical waste** means infectious waste and other waste that contains or may be mixed with infectious waste [s. 299.51(1)(b), Wis. Stats.].



- **Infectious waste** means solid waste that contains pathogens with sufficient virulence and in sufficient quantity that exposure of a susceptible human or animal to the solid waste could cause the human or animal to contract an infectious disease [s. 287.07(7)(c)1.c., Wis. Stats.].





Definitions

Hazardous waste

Characteristic properties are:

- Ignitable (D001) – alcohol, solvents
- Corrosive (D002) - acids
- Reactive (D003) – reacts violently with water, explosive
- Toxic (D004 – D043) – regulatory levels (lead, mercury, silver)

Listed hazardous wastes

unused commercial chemical products – U-listed (nitroglycerin)
acutely hazardous wastes – P- listed (warfarin, nicotine)

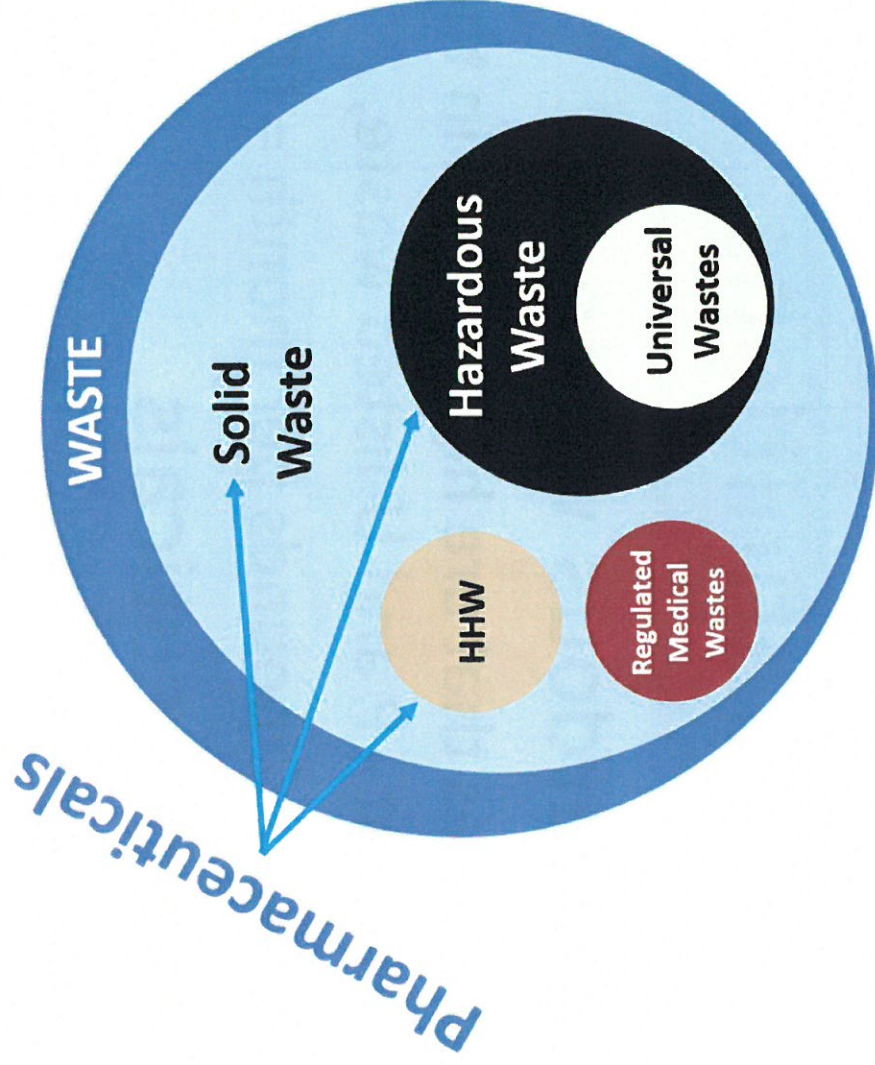


Definitions

- **Acute hazardous waste**
 - Listed wastes that are highly toxic in the environment - P and U-listed waste,
 - Generate >2.2 pounds per month = LQG,
- **HW Pharmaceuticals**
 - medications (pills, liquids, creams) for treating human or animals
 - Examples: unused, expired, excess in syringes & IV bags, opened containers of medications, containers that held P-listed wastes



Universe of Wastes





Common Healthcare

HW Violations

- Waste determination
- Land disposal restrictions
- Manifests
- Annual reporting
- Container management
- Training

Pub. WA850
Common Hazardous Waste Violations



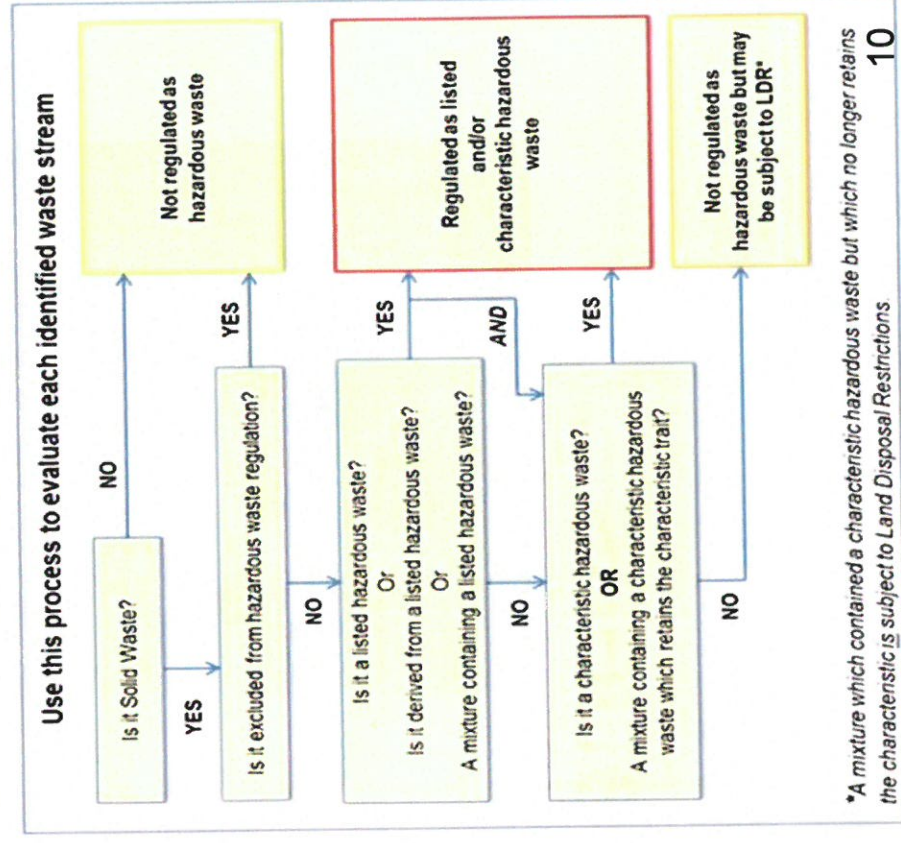


Waste determination

Failure to:

- Conduct a waste determination
- Properly characterize the waste
- Support "generator" with knowledge" with documentation or data
- Record the waste determination

Evaluation Process





Waste determination

Waste Determination

Documentation Form

Date of Determination: _____

Waste Name/Type		Waste Information	
Description of process generating the waste			
Amount generated per month (lbs)			
Does the waste meet the definition of solid waste?	Yes / No	Explain:	
Is this waste exempt from the definition of solid waste or hazardous waste?	Yes / No	Explain:	
Was laboratory analysis used to make this decision?	Yes / No	If yes, provide the information below and attach a copy of the analytical results to this sheet	
Laboratory / DNR certification #			
Was knowledge of the process used to make this determination?	Yes / No	If yes, list the name and date of each supporting document reviewed and attach a copy to this sheet	
Safety Data Sheet:			
Process Flow Diagram:			
Research Data:			
Other:			
Is this waste non-hazardous?		Yes / No	
Is this waste a listed hazardous waste?		Yes / No	
If yes, list waste codes:			
Is this waste a characteristic hazardous waste?		Yes / No	
If yes, list waste codes:			
Name of Facility / Business		Facility Information	

Pub. WA1152
Waste determination
and recordkeeping

Pub. WA1259 Table of
Common Wastes In
Health Care



Examples of lead-containing wastes

- Shielding or wallboard used in X-ray rooms
- Protective clothing for x-ray (aprons, shields, gloves)
- X-Ray film foil wrapping
- Sterilization tape-used with autoclaves
- Apparel and foil may be recyclable





Examples of silver-containing wastes

- Silver tipped catheters, X-ray film, plates, negatives and dental amalgam
- Could be a precious metal- recycled/reused



- Indicate appropriate information on LDR
- Identify if the waste meets treatment standards for land disposal

- 14

Effective Date: January 1 2011



Manifests

Failure to:

- Use a manifest
- Use it correctly
 - Waste codes
 - Volumes
 - Signature
 - Transporter and receiving facilities
- Maintain copies – paper or e-Manifest
- Sign up for e-Manifest access





- SQGs and LQG must fill out HW annual report
- By March 1 of following year
- Track waste generation
- Verify generator status
- Determine waste generation fee
- Waste management in odd years (LQGs)



- **Hazardous waste** – HW generation for previous year by March 1st

<https://dnr.wi.gov/topic/Waste/AnnualReport.html>

Contact regional environmental program associate

<https://dnr.wi.gov/topic/Waste/EPAs.html>

- **Infectious waste** – generation for previous year by March 1st

<https://dnr.wi.gov/topic/HealthWaste/IWReport.html>

Contact: Ariana Mankerian 608/266-6965

Ariana.Mankerian@wisconsin.gov



Container management

Failure to:

- Use correct container
- Closed lid
- Mark or label container
- Date container
- Track accumulation
- Located waste in SAA or CAA



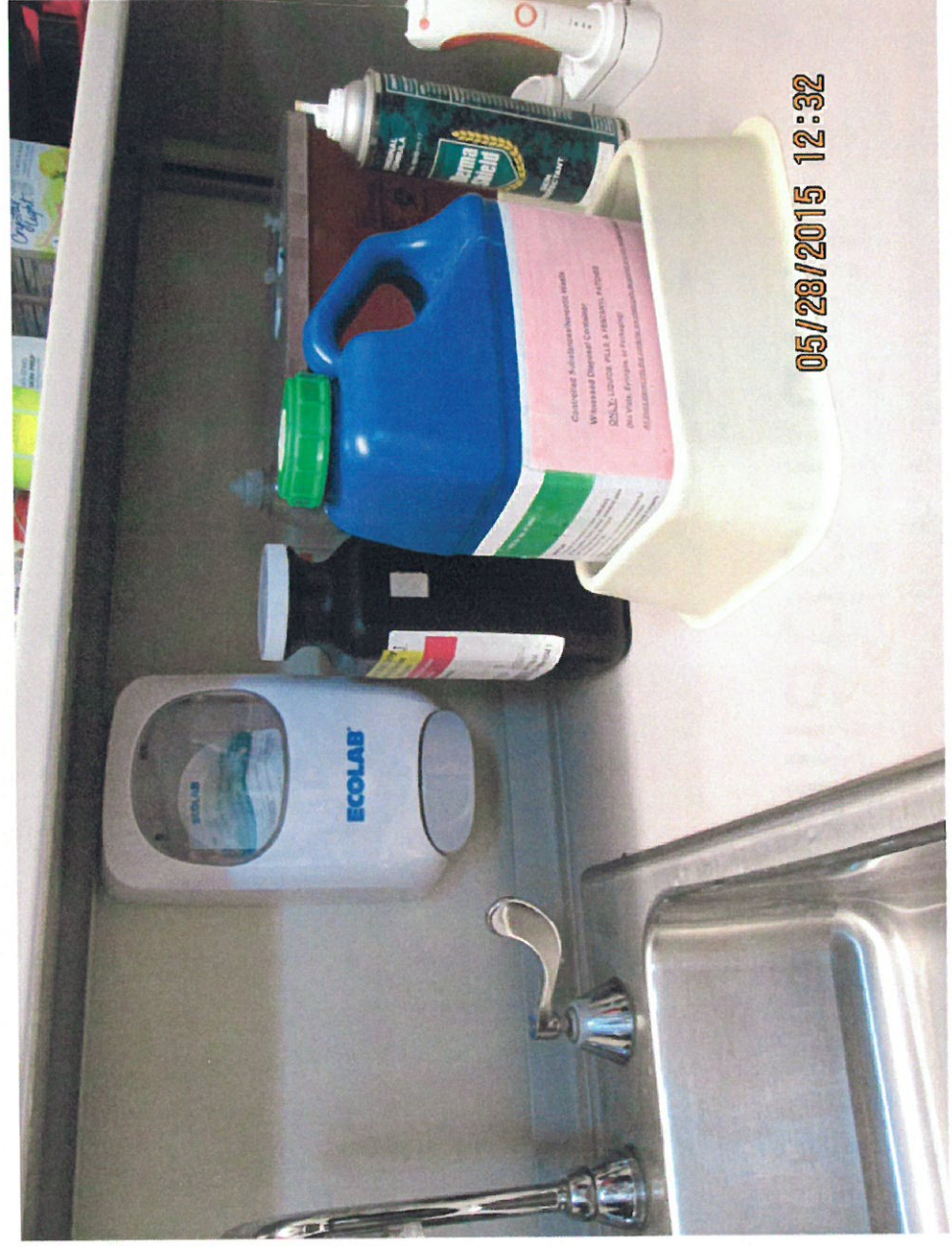
Pub. WA1342
Closed Container Guidance for Hazardous Waste Generators



Distillation unit



Pharmaceuticals





In-house print shop



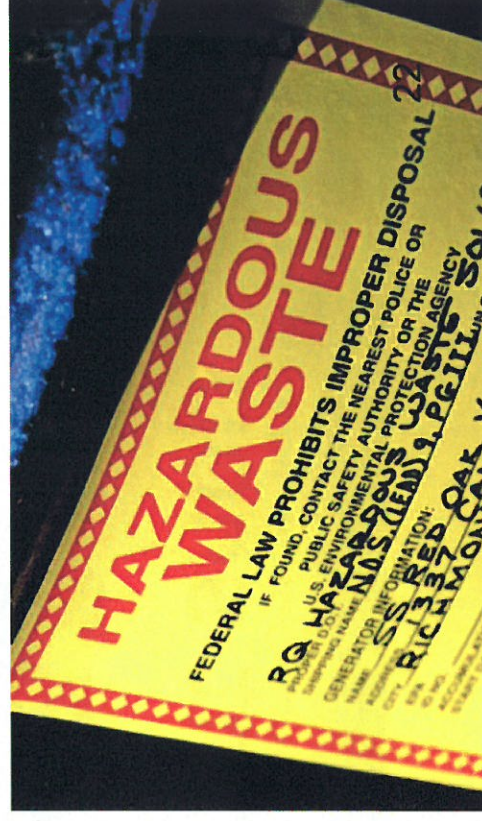


Marking and labeling

Failure to mark or label:

- With the words "Hazardous Waste" or "waste" or "used"
- Accumulation start dates
 - When 55 gallon limit is met in satellite accumulation areas (SAA)
 - When first drop of hazardous waste goes in container in central accumulation area (CAA)

Pub. WA1821 Quick Reference Guide:
Hazardous Waste Generator Regulatory Requirements



Labeling



- Add new label over old
- Fill in the blanks
 - Generator
 - Address
 - Contents
 - Date



Satellite Accumulation Area (SAA)

Failure to:

- Be at or near the point of generation,

AND

- Under the control of the operator of the process
- Observe and track accumulation in SAA
 - over 55 gallons non-acute haz. wastes
 - over 1 quart of acute haz. wastes (>2.2 lbs)
 - and not moved to CAA

Waste container instructions

Meriter - UnityPoint Pharmaceutical Waste Stream Guide

Non-Hazardous Pharmaceutical Waste (No Sharps) Pharmaceutical waste that does not have an assigned hazard code but could pose a health risk if ingested or inhaled. For this reason, all unused material and empty containers are considered hazardous waste and must be disposed of in a designated container. Empty Containers are Toxic.	Acutely Hazardous P Listed (No Sharps) Examples: All unused narcotic products or weapons products and their foil wrappers or blister packs. new: Used narcotic patches and syringes are considered general trash. Pharmaceutical products specifically designated as acutely hazardous (P listed) are regulated by regulatory bodies including EPA and DOT. All unused material and empty containers are considered hazardous waste and must be disposed of in a designated container. Empty Containers are Toxic.	RCRA Hazardous Pharmaceuticals Classified as Best Management Practice Hazardous (BMP) No Sharps NEW REGULATIONS REQUIRE THAT WE ALWAYS KEEP HALF CONTAINERS CLOSED WHEN NOT ADDING WASTE Pharmaceutical products that exhibit hazardous properties (e.g., flammable, corrosive, etc.) are regulated by EPA and DOT. All unused material and empty containers are considered hazardous waste and must be disposed of in a designated container. Empty Containers are Toxic.	CHEMO WASTE ALWAYS KEEP HALF CONTAINERS CLOSED WHEN NOT ADDING WASTE CHEMO Waste includes ALL unused Chemo pharmaceuticals and their packaging. Empty or partially dispensed, pre and spill clean-up material used for Chemo.	General Waste Empty containers including unit and IV bags not containing any hazardous material. - Non-hazardous - Empty bags of blue or white material - Pharmaceutical packaging for Chemo, Narcotic, or Steroids, or other potent drugs, or other potent drugs, or other potent drugs. Severely waste is sent to landfills forward (and 10) for disposal.	Waste to Sanitary Sewer (Sink or Hopper) Plain IV solutions (with out additives) Plain IV flush Medicated solutions must be drained in the sanitary sewer.	Pressurized Inhalers Return to pharmacy for disposal. Do not dispose of on the unit. Place the empty, used or partially used inhaler in a plastic zip lock bag and return to the pharmacy. The inhalers collected as hazardous waste and incinerated at a hazardous waste incinerator.	Controlled Substances Narcotic Waste NEW: All Fentanyl Patches, Liquid, or any other narcotic, must be disposed of in this special waste stream. Do not dispose of any controlled substance waste into the sanitary sewer or general waste stream. Controlled substances that are not regulated by the DEA but are regulated by the state are considered hazardous waste and must be disposed of in a designated container. The controlled substances are collected and stored in the controlled substance storage area. All controlled substances are collected and stored in the controlled substance storage area. All controlled substances are collected and stored in the controlled substance storage area.
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Lab waste disposal guide

Laboratory Waste Disposal Guide

Blue Bin Cont # 7

For all basic chemicals these are chemicals with a pH >11

Purple Bin Cont # 6

For all acidic chemicals, these are chemicals with a pH <3

55 Gallon Drum

For all Flammable bottles of Xylene, Methanol, Isopropyl

Black Bin Cont # 8

For all other chemicals that are not basic or acidic or flammable

When placing chemicals in the bin

- Ensuring that all containers are sealed tightly
- Opening of containers are always placed upright
- That containers are in good condition
 - If containers are damaged place container in a bag before putting in the container
- Ensure that all chemicals are clearly labeled as what the contents of the container are

Certain Histology chemicals that are collected at point of use in their own bottles when full shall be picked up directly by the Chemical Hygiene Officer for transport to the hazardous waste storage room and should not be placed in this room. For pickup of these chemicals call ext. 51678, cell 608-317-3431, pager 1083 or email glabshaw@gundersenhealth.org

When unsure of where a chemical should be disposed of place the chemical in the gray tub labeled "Waste determination needed ensure that the chemical is clearly labeled as what the contents are. Notify the CHO that the chemical is in the container."

GUNDERSEN
HEALTH SYSTEM



Central Accumulation Area (CAA)

Failure to:

- Track waste generation rate per month
 - Incorrect generator status
 - Noncompliance with larger generator status requirements
 - Incorrect annual reporting and fees
- Track waste container dates for 90 or 180 day
 - Extensions can be granted due to situation
 - Operating as an unlicensed HW storage facility

[Quick Reference Guide: Hazardous Waste Generator Regulatory Requirements WA1821](#)



Central accumulation area





Total accumulation

Quantity of waste on-site at start of month:	
Quantity of waste generated during the month:	
Quantity of waste shipped off-site during the month:	
Quantity of waste on-site at end of month:	

Mark on the calendar:

- Each day a hazardous waste storage inspection was conducted.
- Each day hazardous waste was shipped.

Things to consider:

- How much hazardous waste was generated this month?
- How much hazardous waste is currently in storage?
- What is the oldest accumulation start date in storage?

- Monthly generation
- 1st day of month
- Activity
 - Accumulation
 - Waste shipped
- Last day of month
- Track totals



Training

Failure to provide:

- Adequate training for employees managing haz. waste
- Training on implementation of contingency plan
- Training on emergency evacuation portion of the contingency plan to ***all facility personnel***
- Documentation of training



Pub. WA099
Training Requirements and Records





Sewering ban for HW Pharmaceuticals



- Effective **August 21, 2019**
- Bans sewerage of *hazardous waste* pharmaceuticals
- *Including:*
 - DEA-controlled substances
 - Mixed waste –radioactive and RCRA hazardous waste
- All healthcare facilities are affected
- BMP-not to sewer non-haz. pharmaceuticals



New pharmaceutical rules

Coming soon!

- Exclusion of over-the-counter nicotine replacement therapies
- Two sets of standards for “potentially creditable” and “non-creditable” HW pharmaceuticals
- Reverse distributor requirements
- Exemption for RCRA, if DEA-controlled substance
- Clarification on empty containers with residue
- Accumulation up to 1 year without storage license



New pharmaceuticals rules

Coming soon!

- No satellite accumulation areas requirements
- No specific hazardous waste codes on manifests
- Training requirements
- Pharmaceutical rule will be in effect when WI adopts rule – Spring 2020

<https://www.epa.gov/hwgenerators/final-rule-management-standards-hazardous-waste-pharmaceuticals-and-amendment-p075>



In-house Pharmacy





Resources for HW Pharmaceuticals Info

EPA web pages for Pharmaceutical waste

<https://www.epa.gov/hwgenerators/management-pharmaceutical-hazardous-waste>

- Database
- State Resources
- Small Business information

Healthcare Environmental Resource Center (HERC)

Compliance Assistance for HW Generators – HW Portal

<https://www.hazwasteportal.org/>

Web page information

<https://dnr.wi.gov/topic/Waste/>



Managing waste and materials

Report

a solid waste or hazardous waste complaint to the DNR.

Learn

about opportunities for public comment.

We all use many different materials in our daily lives. How we handle materials and products when they are no longer useful to us depends on what they are made of—especially whether they have toxic or hazardous components—and whether there are economically feasible opportunities for reuse or recycling. Waste managers and DNR staff are working together to minimize the amount of waste that needs to be treated, landfilled or incinerated. These efforts can reduce disposal costs and make sure valuable, reusable materials don't go to waste.

The DNR ensures proper management of solid waste through regulation of landfills and other solid waste management facilities. State regulations also encourage beneficial use of industrial byproducts to preserve resources, conserve energy and reduce the need for more landfills. The DNR's hazardous waste staff work with generators and transporters, along with treatment, storage and disposal facilities to ensure proper management of hazardous waste and prevent threats to human health and the environment.



Workers sort demolition waste.



The DNR has hazardous waste treatment, storage and disposal facilities.

Solid waste	Hazardous waste	Staff contacts
Overview Landfills Administrative codes & statutes FAQ Inspection & application forms Solid Waste Interested Parties	Overview Administrative codes & statutes Annual report Definitions FAQ Forms & checklists	Regional contacts Beneficial use Environmental monitoring Hazardous waste Recycling Solid waste

Subsc

- [The Comp](#)
- [Electronic Updates](#)
- [Hazardous](#)



Staff directory

 Business

 Licenses & Regulations

 Recreation

 Env. Protection

 Contact

 Join DNR



General Information: 1-888-936-7463

Violation Hotline: 1-800-847-9367

Emergency Spill Hotline: 1-800-943-0003

DNR Staff Directory

Last Name:

First Name:

Subject: 

Counties Served:  

☐ Hide Subjects

☐ Show Subjects

☐ Begins With 

Contact

Sales locations
License and registration agents

Service Centers
DNR Service Centers

Field offices
DNR Field Offices

Name	Title	Subject	Counties Served	Phone #	Email	URL	WORK STATION - City
Baerwald, Cathy	WASTE MANAGEMENT SPEC-SEN	Hazardous Waste Requirements	Milwaukee	(414) 263-8698	Catherine.Baerwald@wisconsin.gov		MILWAUKEE SERVICE CENTER - MILWAUKEE
Beyer, Alexander	WASTE MANAGEMENT SPEC-SEN	Hazardous Waste Requirements	Brown, Door, Kewaunee, Manitowoc, Marinette, Menominee, Oconto, Shawano	(920) 562-5428	Alexander.Beyer@wisconsin.gov		GREEN BAY SERVICE CENTER - GREEN BAY
Keller, Andrea	NAT RES PROGRAM MANAGER	Hazardous Waste Requirements	Statewide	(608) 267-3132	Andrea.Keller@wisconsin.gov		GEF2 DNR CENTRAL OFFICE - MADISON
Malek, Randy	WASTE MANAGEMENT SPEC-ADV	Hazardous Waste Requirements	Milwaukee, Walworth, Waukesha	(262) 521-5012	Randall.Malek@wisconsin.gov		WAUKESHA SERVICE CENTER - WAUKESHA
Pelczar, Jennie	Waste Management Specialist-Ad	Hazardous Waste Requirements	Calumet, Fond Du Lac, Green Lake, Marquette, Outagamie, Waupaca, Waushara, Winnebago	(920) 303-5431	Jennifer.Pelczar@wisconsin.gov		OSHKOSH SERVICE CENTER - OSHKOSH
Petrus, Ben	Waste Management Specialist-Se	Hazardous Waste Requirements	Columbia, Dane, Dodge, Jefferson, Richland, Sauk	(608) 275-3299	Benjamin.Petrus@wisconsin.gov		FITCHBURG SERVICE CENTER - FITCHBURG
Pogorzelski, Jordan I.	Waste Management Specialist-Se	Hazardous Waste Requirements	Ozaukee, Sheboygan, Washington	(262) 574-2144	Jordan.Pogorzelski@wisconsin.gov		WAUKESHA SERVICE CENTER - WAUKESHA

Healthcare Waste

DNR's hazardous waste staff work with generators and transporters, along with receiving, storage and disposal facilities to ensure proper management of hazardous waste and prevent threats to human health and the environment.



Solid waste

- [Overview](#)
- [Landfills](#)
- [Administrative codes & statutes](#)
- [FAQ](#)
- [Inspection & application forms](#)
- [Solid Waste Interested Parties](#)
- [Waste & Materials Management Study Group](#)
- [Waste tires](#)



Hazardous waste

- [Overview](#)
- [Administrative codes & statutes](#)
- [Annual report](#)
- [Definitions](#)
- [FAQ](#)
- [Forms & checklists](#)
- [Household hazardous waste](#)
- [Manifests](#)
- [Universal waste](#)



Staff contacts

- [Regional contacts](#)
- [Beneficial use](#)
- [Environmental monitoring](#)
- [Hazardous waste](#)
- [Recycling](#)
- [Solid waste](#)



The DNR has staff that inspect hazardous waste generators and treatment, storage and disposal facilities.

Subscribe to email lists

- [The Compost Post](#)
- [Electronics Recycling Updates](#)
- [Hazardous Waste Decoded](#)
- [Healthcare Waste News](#)
- [Recycling Updates](#)
- [Solid Waste News](#)
- [Waste & Materials Management Study Group](#)



Beneficial use

- [Industrial byproducts](#)
- [NR 538 revisions](#)
- [Special wastes for public works](#)
- [Accumulated sediment](#)
- [Construction & demolition materials](#)



Resources

- [SHWMS database](#)
- [Waste facility and transporter licenses and lists](#)
- [Financial responsibility forms](#)
- [Waste & climate change](#)
- [Cleaning up storm debris](#)
- [Publications](#)



Other related topics

- [Electronics recycling](#)
- [Healthcare waste](#)
- [Mines, pits & quarries](#)
- [Open burning](#)
- [Recycling & composting](#)

Contact information
For information on waste and materials management, contact:
[DNR Waste & Materials Management Program](#)



Questions?

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