

Your Role with Handling Wastes Generated at Healthcare Facilities



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Reed Sneller

Today's objective

- Describe MDEQ waste inspections
- Provide brief overview of different waste regulations
- Explain different regulations and basic requirements that apply to pharmaceutical wastes

Waste Inspections Summary

Before visit:

- Review Facility Records



Onsite visit:

- Introductions
- Review Paperwork
- Inspect Facility
- Exit Interview



Post inspection:

- Follow-up letter

Manifest printout overview



What do inspectors look at?

- **Records**
 - Waste related (manifests & LDR, inspection logs, waste characterization, biennial report)
 - Emergency preparedness (employee training, contingency plan, equipment)
- **Waste handling & accumulation areas**
 - Containers, labeling, secondary containment, isolation distance (LQG)

Inspections can be broken into two broad categories: records and waste handling and accumulation areas

You can do a self inspection: Use the inspection forms which include rule citations so you can look up the details. However, the forms are being updated to reflect correct citations.

Compliance Tip

- Do a self audit with inspectors checklist
- Match checklist to your site's waste activity
- www.michigan.gov/deqwaste

The screenshot shows a web browser window displaying the Michigan Department of Environmental Quality (DEQ) website. The page title is "Hazardous Waste Program Inspection Forms". The left navigation menu is expanded to show "Hazardous and Liquid Industrial Waste", which is circled in red. The main content area lists various inspection forms, including:

- Hazardous Waste Transporter Inspection Form EQP 5169, (4/2003)
- Conditionally Exempt Small Quantity Generator Inspection Form EQP 5160, (4/2003)
- Small Quantity Generator Inspection Form EQP 5161, (abbreviated) (4/2003)
- Small Quantity Generator Tank System Inspection Form EQP 5162, (abbreviated) (4/2003)
- Generator Inspection Form EQP 5163, (4/2003)
- Generator Tank Inspection Form EQP 5168, (abbreviated) (4/2003)
- Permitted Treatment, Storage, Disposal Inspection Form EQP 5166, (4/2003)
- Interim Status Treatment, Storage, Disposal Inspection Form EQP 5171, (4/2003)
- ISQG Generator Appendix Inspection Form EQP 5176, (6/2003)
- Used Oil Inspection Form – Burn For Energy Recovery EQP 5179, (4/2003)
- Used Oil Inspection Form – Collection Centers And Amenities

Common waste violations

- Improper labeling on containers
- Failure to close containers & protect from weather
 - Unattended lab container with funnel
- Using wrong site identification number on waste manifests
- Incorrect waste generator notifications and not meeting applicable generator requirements
 - i.e. was actually generating SQG amounts but on file as a CESQG
 - Not meeting emergency planning requirements

Now what?

- 1. Become familiar with the different regulations and the oversight agency**

Not all drugs are hazardous waste so that is why you need to know more about waste regulations than you care to

and you will need to know more about other wastes that are generated at the facility besides the pharmaceuticals

The specific management requirements will be based on more than just the amount of pharmaceuticals generated

Look at the whole facility from patient care, pharmacy, testing labs, surgery, grounds and equipment maintenance

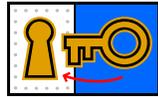
Where do I find DEQ regulations?

The screenshot shows the Michigan DEQ website with several red circles highlighting key navigation and content elements:

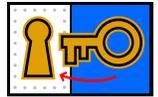
- Left Navigation Menu:** A vertical list of categories including Administrative Hearings, Clean Michigan Initiative, Community Right to Know, Environmental Assistance, Environmental Education, Environmental Emergencies, Environmental Incentives, Forms, Environmental Reports, Grants and Loans, Laboratory Services, **Laws & Rules** (highlighted), Laws, Rules, Locations of Environmental Interest, and Maps & Data.
- Top Utility Bar:** Links for Printer Friendly, Text Version, Email Page, and Text Size.
- Main Content Area:**
 - Laws and Rules** section header.
 - Michigan Environmental Laws And Rules Overview** text explaining that environmental requirements are in state and federal statutes and administrative rules, consolidated into the Natural Resources and Environmental Protection Act, 1994, PA 451.
 - Information** section with a list:
 - Environmental Laws and Rules Database** (highlighted): A search page to locate information about Michigan environmental laws and rules.
 - Laws**: Environmental requirements are included in both state and federal statutes.
 - Rules**: An administrative rule is an example of a written regulation.
- Right Side Navigation:**
 - Departments/Agencies
 - Online Services
 - Surveys
 - RSS Feeds
 - DEQ Quick Links: DEQ Calendar, DEQ Military Salute, DEQ Who Does What List (PDF), DEQ Publications, **DEQ acronyms (PDF)** (highlighted), **DEQ Laws and Rules** (highlighted), DEQ Shortcuts (LINK), Public Comment Opportunities, DEQ Staff Spotlight, DEQ Forms, DEQ Training & Workshops, Quick Links, Compliance Assistance.
 - EnviroFlash: Your Environmental News Flash.
 - MIair.
 - Beach Monitoring System.
 - MISWIM: Surface Water Information Management System.

I've provided the website addresses in your handout where you can find the regulations and different resources to help you through this maze of regulations.

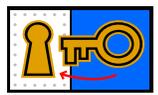
KEYS TO UNDERSTANDING REGULATIONS



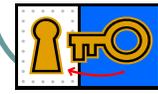
Each regulation may define “HAZARDOUS” and “MEDICAL WASTE” or “SPILL” differently



“Hazardous material” is not always the same as “hazardous waste”



Product requirements are different than waste requirements



Universal wastes are hazardous wastes that a facility chooses to handle under an alternative rule

Points to Remember for Wastes

- **Different activities may generate more or different hazardous waste**
 - Daily operations vs when moving locations
 - New regulations restricting devices containing mercury
www.michigan.gov/deqmercury
- **Some pharmaceuticals are managed as controlled substances by US DEA (Controlled Substances Act)**

DEA is Drug Enforcement Administration

Depends on type of medication and facility generator status

Universal Waste R 299.9228 + 40 CFR 273

Mixed Waste (Hazwaste + Radioactive materials)

Several acts dealing with medical mercury devices

Amended **Part 172, Mercury-Added Products, of Act 451**

If not handled as universal waste, could affect the site's hazardous waste generator status

Hg-containing Medical Device(s) sales ban 1/1/2009 Act 494 of 2006

Hg Blood Pressure Device

sales ban 1/1/2008 and specific use ban 1/1/2009 Act 493 of 2006

Hg Thermostat sales ban 1/1/2009 Act 492 of 2006

Points to Remember for Wastes

- **Not all hazardous wastes can be managed as universal waste (Part 111 & RCRA)**
- **Do not mix pharmaceuticals and other waste with medical waste**
- **Can't rely on just using federal regulations...**

MI waste regulations differ from EPA

- **MI did not adopt the federal nitroglycerine exemption**
- **Have additional U listed wastes that include pharmaceuticals**
- **MI has different universal wastes**
- **MI has liquid industrial waste regulations**



Identifying Generator and Handler Status

- **Conditionally Exempt Small Quantity Generator (CESQG)**
- **Small Quantity Generator (SQG)**
- Large Quantity Generator (LQG)
- **Small Quantity Handler (SQH)**
- Large Quantity Handler (LQH)

The hazardous and universal waste requirements will depend on the facility's generator status. The categories in bold are the common hw generator and uw handler status categories for healthcare facilities

	Conditionally Exempt Small Quantity Generator (CESQG) ¹	Small Quantity Generator (SQG) ¹	Large Quantity Generator (LQG)
Amount of acute or severely toxic hazardous waste generated or accumulated at any time²	1 kilogram (2.2 pounds) or less	1 kilogram (2.2 pounds) or less	More than 1 kilogram (2.2 pounds)
Amount of acute spill residue or contaminated soil generated or accumulated at any time²	100 kilograms (220 pounds) or less	100 kilograms (220 pounds) or less	More than 100 kilograms (220 pounds)
Amount of non acute hazardous waste generated in 1 calendar month	Less than 100 kilograms (220 pounds)	At least 100 kilograms (220 pounds) but less than 1,000 kilograms (2,200 pounds)	1,000 kilograms (2,200 pounds) or more
Approximate volume of non acute hazardous waste³	Less than half of a 55gallon drum, or 25 gallons	One-half to five drums, or 25 to 250 gallons	Five full drums, or 200-250 gallons
Maximum amount of non acute hazardous waste that can be accumulated on-site	1,000 kilograms (2,200 pounds)	6,000 kilograms (13,200 pounds)	No maximum amount
Maximum time period before waste must be shipped	No time limit unless amount exceeds 2,200 pounds	180 days, unless shipping over 200 miles, then 270 days	90 days

More Points to Remember for Wastes

- **Nonhazardous liquid wastes can be shipped off-site as liquid industrial waste (Part 121) or discharged to wastewater treatment plant with their permission (Part 31)**
- **Facilities with septic systems may require DEQ permit depending on type of waste being discharged**
- **Facilities with onsite discharges to surface water need DEQ NPDES permit for discharges**

More Points to Remember for Wastes

- **Different landfills may accept different solid waste (Part 115); some wastes are banned from all landfills**
- **More than one agency is involved with transportation requirements**
 - MSP
 - US DOT
 - DEQ
 - Local authorities

Next step in figuring out requirements?

2. Become familiar with

- **What is on file for your facility**
- **What wastes are on existing manifests**

But don't assume things stay the same...

Not all drugs are hazardous waste so that is why you need to know more about waste regulations than you care to

and you will need to know more about other wastes that are generated at the facility besides the pharmaceuticals

The specific management requirements will be based on more than just the amount of pharmaceuticals generated

Look at the whole facility from patient care, pharmacy, testing labs, surgery, grounds and equipment maintenance

How do I know what hazardous or liquid waste generator status is on file?

- Call the Medical Waste Program
- Use the Waste Data System on the Internet www.deq.state.mi.us/wdsp for hazardous and liquid waste
- Call the WHMD District Office
- Call Environmental Assistance Center at 800-662-9278 for referral to staff
- See the inspectors contact list in packet

MDEQ-WHMD WDS Web Inquiry System - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <http://www.deq.state.mi.us/wdspi/>

Google Search 17 blocked Check AutoLink AutoFill Options

DEQ Department of Environmental Quality 

[Michigan.gov](#) | [DEQ Home](#) | [WDS Home](#) | [Online Services](#) | [Programs](#) | [Site Map](#) | [Contact DEQ](#) Search

WDS Quick Search [What's this?](#) [Advanced Search](#)

MDEQ-WHMD WDS Web Inquiry System (WDS Home)

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs. WDS can provide information on ownership and operation of the facility; the status of any required permits, licenses, registrations, or certifications; compliance status; authorized transporters; shipments of hazardous or liquid industrial waste (manifest); and user fees.

- This site is best viewed using Microsoft Internet Explorer.
- To begin searching, [Click Here](#)
- To send an e-mail for additional program information, [Click Here](#)
- NOTE: Web site data is updated each weekend from the WDS production database.
- This is version 2.5 of the application, released 10/26/2005

[Michigan.gov Home](#) | [DEQ Home](#) | [WDS Home](#) | [Online Services](#) | [Programs](#) | [Site Map](#) | [Contact DEQ](#)
[State Web Sites](#) | [Privacy Policy](#) | [Link Policy](#) | [Security Policy](#)

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Advanced Search

Welcome to the MDEQ-WHMD WDS Web Inquiry System Advanced Search. Enter your desired search criteria below and click the "Search" button to return a list of sites that match your criteria. For Yes/No search items, select only the item(s) that are relevant to your search. For example, selecting "No" for "Is Indian Land" will filter your search so that only sites that are not on Indian land are returned; if you select neither "Yes" nor "No," the Indian Land filter will simply be ignored. To clear all search criteria, click the "Reset Form" button.

Primary Sort Option Secondary Sort Option
 show criteria on result page? display per page

Please note: The search is limited to 3000 records

General Site Information

General

<input type="text" value="Site ID / WMD ID"/>	<input type="text" value="Legal or Site Name"/>
<input type="text" value="Historic Names"/>	<input type="radio"/> Is Indian Land <input type="radio"/> Yes <input type="radio"/> No

Location Address

<input type="text" value="Address"/>	<input type="text" value="City"/>
<input type="text" value="State"/>	<input type="text" value="County"/>
<input type="text" value="Postal Code"/>	<input type="text" value="Country"/>
<input type="text" value="Michigan District"/>	

NAICS Codes

<input type="text" value="NAICS Code"/>

Hazardous & Liquid Industrial Waste Site Activity Information

Compliance, Monitoring, & Enforcement for the Hazardous Waste, Liquid Industrial Waste, Solid Waste, and Scrap Tire Programs

Hazardous Waste Permitting & Corrective Action

Hazardous Waste Manifest Data (2001 to 2006)

Hazardous & Liquid Industrial Waste Transporters

Solid Waste

For best match results I enter info into 2 fields:

In address field I only enter street number and then the zip code in the postal code field

Site Identification	Site Information					
CME	Site ID MID099662439	Site Legal Name ST JOSEPH MERCY HEALTH SYSTEM				
Compliance Actions	NAID ID 398116	Site Specific Name ST JOSEPH MERCY HOSPITAL				
Evaluations	District JACKSON					
Violations	NAICS Codes 62211 - General Medical and Surgical Hospitals					
Manifests	Location Address 5301 HURON RIVER DR E ANN ARBOR, MI 48106 County: WASHTENAW Country: U.S.A.	Mailing Address P O BOX 995 ATTN: ACCOUNTS PAYABLE ANN ARBOR, MI 48106 County: WASHTENAW Country: U.S.A.				
User Charges						
User Charges						
	Previous Site Names					
	Name	In-Active Date				
	MCAULEY CATHERINE HEALTH CTR	7/12/2002				
	MCAULEY CATHERINE HEALTH CTR	7/12/2002				
		Legal Name				
		No				
		Yes				
	Site Owners / Operators					
	Name	Org Type	Active	Inactive	Owner	Operator
	TRINITY HEALTH	Private	1/1/2000		Yes	No
	SISTERS OF MERCY CORP	Private	10/5/1977	1/1/2000	Yes	No
	ST JOSEPH MERCY HOSPITAL	Private	10/5/1977		No	Yes
	Current Site Activities					
	Discovery Date	Source	Activity			
	3/10/2006	Notification (Site)	Hazardous Waste Activities Small Quantity Generator Polychlorinated Biphenyls Generated an item, product, or material containing a concentration equal to or greater than 100 ppm of PCB Liquid Industrial Waste Activities LIW Generator Universal Waste Activities Large Quantity Handler Batteries - Generated Thermostats - Generated Mercury Thermostats - Generated Elemental Mercury - Generated			

Online Manifests

- Start by looking at past manifests
- WDS only has manifest information that included hazardous waste in the shipment

Site Identification		Site Information			
CME		Site ID	MID099662439	Site Legal Name	ST JOSEPH MERCY HEALTH SYSTEM
Compliance Actions		WHD ID	398116	Site Specific Name	ST JOSEPH MERCY HOSPITAL
Evaluations		District	JACKSON		
Violations		NAICS Codes	62211 - General Medical and Surgical Hospitals		
Manifests		Location Address	5301 HURON RIVER DR E ANN ARBOR, MI 48106 County: WASHTENAW Country: U.S.A.		
User Charges		Mailing Address	P O BOX 995 ATTN: ACCOUNTS PAYABLE ANN ARBOR, MI 48106 County: WASHTENAW Country: U.S.A.		
User Charges					
Previous Site Names					
Name		In-Active Date		Legal Name	
MCAULEY CATHERINE HEALTH CTR		7/12/2002		No	
MCAULEY CATHERINE HEALTH CTR		7/12/2002		Yes	
Site Owners / Operators					
Name	Org Type	Active	Inactive	Owner	Operator
TRINITY HEALTH	Private	1/1/2000		Yes	No
SISTERS OF MERCY CORP	Private	10/5/1977	1/1/2000	Yes	No
ST JOSEPH MERCY HOSPITAL	Private	10/5/1977		No	Yes

How do I update notification or get number for new site?

WDS Quick Search [What's this?](#) [Advanced Search](#) [Result List](#)

MDEQ-WHMD WDS Web Inquiry System (WDS Home)

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs. WDS can provide information on ownership and operation of the facility; the status of any required permits, licenses, registrations, or certifications; compliance status; authorized transporters; shipments of hazardous or liquid industrial waste (manifest); and user fees.

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- This is version 2.5 of the application, released 10/26/2005

HOW TO SUBMIT A SITE IDENTIFICATION FORM (EQP5150)

Site Identification Numbers are assigned to the property and do not move to a new location if the business changes locations. Subsequently, you need to use the "Advance Search" in the WDS to determine if the physical location already exists in the data system. A complete search will require entering different combinations of search criteria so you can account for variations in how the data may be stored, such as searching on:

- Street number and city
- Street number and county
- Street name and city
- Part of street number, street name, and city

To start entering in search criteria (advance search) [click here](#)

If you find a site already exists in the WDS at the same location where you are applying for a Site Id number, you can call the local district office ([click here](#) for office location and phone numbers) and obtain a pre-populated Site Id form or you can fill out a blank form and enter the Site Id number in Box II. The blank Site Id form is on the following web page then click on EQP5150 - Michigan Site Identification Form (directions not included) - revised 10/2007 - [click here](#)

If you do not find a site already existing in the WDS for the same location where you are applying for a Site Id number, you will need to fill out a blank form. The blank Site Id form is on the following web page then click on EQP5150 - Michigan Site Identification Form (directions not included) - revised 10/2007 - [click here](#)

If you are required to pay the \$50 user fee charge you may pay by credit card (Master Card, VISA, or Discover Card) by going to the following secure site - [click here](#) If you choose to pay by credit card, you must submit of your receipt with the Site Identification Form. Either : Mail to: DEQ, WHMD, P.O. Box 30241, Lansing, MI 48909. OR Fax to:

www.deq.state.mi.us/wdsp/

Commonly missed fields on EQP 5150

- NAICS
- Tax Number
- Number of Employees
- Full date xx/xx/xx when became owner/operator
- Signature on page 2

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY Waste and Hazardous Materials Division		DEQ
SITE IDENTIFICATION		
<p>Read the instructions on the Hazardous Waste and Environmental Response Act (HWEA) and the Michigan Hazardous Waste and Environmental Response Act (MHEWA) before you fill out this form.</p> <p>I. The form is being submitted:</p> <p><input type="checkbox"/> as initial notification: to notify as a new site or new owner for the site. Mail this form and the user charge fee with either a receipt from paying the EDC ID fee (see page 2) or a check made payable to the State of Michigan - Michigan Medical Research Center - HWEA, P.O. Box 30657, Lansing, MI 48909-4167.</p> <p><input type="checkbox"/> as subsequent notification: to change, update, or verify site information for an existing owner of a site with a previously issued Site ID number. Mail only this form to WHMCMDEQ at WHMCMDEQ, Notification Unit, P.O. Box 30657, Lansing, MI 48909-4167. A fee is not required. Otherwise submit to: MDEQ Revenue Office (see above).</p> <p>AND ANY OF THE FOLLOWING:</p> <p><input type="checkbox"/> as a component of a Hazardous Waste Permit Part A (submit to WHMCMDEQ)</p> <p><input type="checkbox"/> as a component of the Hazardous Waste (General) Report (submit to WHMCMDEQ)</p>	<p>II. Site's ID Number</p> <p>A. Site's Identification (ID) Number:</p>	
<p>III. Name of Site</p> <p>TYPE OR PRINT CLEARLY</p> <p>A. Legal Company Name:</p> <p>B. Site Specific Name (if any):</p>	<p>IV. NAICS for this site</p> <p>A. B. C. D.</p>	
<p>V. Site Location Address and Other Site Information</p> <p>TYPE OR PRINT CLEARLY</p> <p>Street Address line 1:</p> <p>Address line 2: City, Town, or Village:</p> <p>State, Province or Subdivision (2 letters): Country:</p> <p>County Name (if only): Zip or Postal Code: -</p> <p>Tax Number: Approx. Ave. Number of Employees:</p>	<p>VI. Site Mailing Address</p> <p>TYPE OR PRINT CLEARLY</p> <p>Street Address line 1 or PO Box:</p> <p>Address line 2: State, Province or Subdivision (2 letters):</p> <p>City, Town, or Village: Zip or Postal Code: -</p> <p>Country:</p>	
<p>VII. Site Contact Person</p> <p>TYPE OR PRINT CLEARLY</p> <p>First Name: Last Name:</p> <p>Phone Number: () Phone number extension:</p> <p>email address: Fax number: ()</p>	<p>VIII. Indian Reservation</p> <p>Facility on Indian Reservation Land <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	

Page 1 of 4

EQP5150 rev. 10/17

If you need to update, you can request a prepopulated form from the District Office or call Jerry Kelly at 517-335-5139

Do you have medical waste?

*Medical Waste
Regulatory Act (MWRA),
Part 138 of the Michigan
Public Health Code,
1978 PA 368, as
amended*

DEQ. MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

**MEDICAL
WASTE**

Public Act and Rules Governing
Disposal of Medical Waste



BIOHAZARD

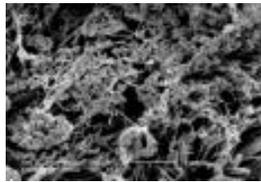
MWRA HISTORY

- Enacted in 1990 in response to medical waste washing up on the shores of the Lake Michigan and Lake Erie
- Defines responsibilities of those who produce, treat, and/or store medical waste in the interest of safeguarding public health and the environment



WHAT IS MEDICAL WASTE?

- Cultures and stocks of infectious agents and associated biologicals, including laboratory waste, biological production wastes, discarded live and attenuated vaccines, culture dishes, and related devices.



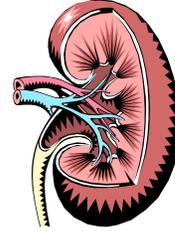
WHAT IS MEDICAL WASTE?

- Liquid human and animal waste, including blood and blood products and body fluids, but not including urine or materials stained with blood or body fluids



WHAT IS MEDICAL WASTE?

- Pathological waste, which includes human organs, tissues, body parts other than teeth, products of conception, and fluids removed by trauma or during surgery or autopsy or other medical procedure and not fixed in formaldehyde



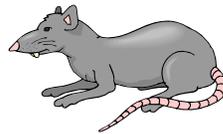
WHAT IS MEDICAL WASTE?

- Sharps, which includes needles, syringes, scalpels, and intravenous tubing with needles attached
- The MIOSHA Bloodborne Infectious Diseases Standard (Part 554) also requires the following to be treated as sharps in accordance with the MWRA:
 1. Broken Glass
 2. Broken Capillary Tubes
 3. Exposed Ends of Dental Wires



WHAT IS MEDICAL WASTE?

- Contaminated wastes from animals that have been exposed to agents infectious to humans, these being primarily research animals



FACILITY INSPECTIONS

- May be performed on a random basis or due to the receipt of a complaint
- May be unannounced or scheduled with facility prior to visit
- Facilities may request an inspection to identify problems or verify that compliance is achieved by contacting the Medical Waste Regulatory Program
- Focus is primarily on education and consultation



MEDICAL WASTE INSPECTIONS: WHAT WE LOOK FOR

- ✓ **Certificate of Registration as a Medical Waste Producing Facility**

- Expires every 3 years
- Renewals are sent to the facility automatically
- Initial applications can be obtained by contacting the MWRP



INSPECTIONS: WHAT WE LOOK FOR

- ✓ **Medical Waste Management Plan**
 - Requirements under Sections 13813 and 13817 of the MWRA
 - A written plan that lists/describes types of medical waste generated at the facility and methods of packaging, treatment, and disposal
 - Sample plan available on program website



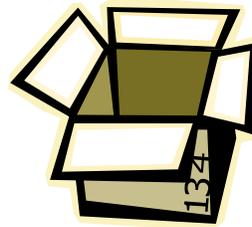
INSPECTIONS: WHAT WE LOOK FOR

- **Shipping Records/Disposal Documentation**

- Verify proper treatment/disposal of medical waste generated at the facility

- Medical waste not stored at the facility longer than 90 days

- Disposal company should provide duplicate record at time of pickup



INSPECTIONS: WHAT WE LOOK FOR

- **Record of Employee Training**

- for any employee that handles medical waste at the facility
- in accordance with medical waste management plan
- must be retained for at least 3 years
- must include employee name, title, and date(s) of training



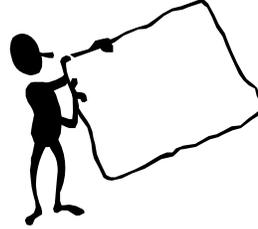
MOST COMMON VIOLATIONS/ISSUES

- Medical Waste Management Plan not available, insufficient, or incomplete
- Storing medical waste (especially sharps containers) in excess of 90 days
- Record of training not available
- Disposal of general trash with medical waste (not technically a violation, but unnecessary and expensive!)



COMPLIANCE TIPS

- Mounted instructions in disposal areas are helpful as a constant reminder of what should and should not be placed in the regulated medical waste stream
- Keep all required documents (certificate, plan, shipping records, training records) in one file for easy retrieval



Medical Waste Regulatory Program Contact Information

- **Andrew Shannon**

Environmental Quality Analyst

Phone: 517-335-1146

E-Mail: shannona1@michigan.gov

- **John Gohlke**

Program Specialist

Phone: 517-241-1320

E-Mail: gohlkej@michigan.gov

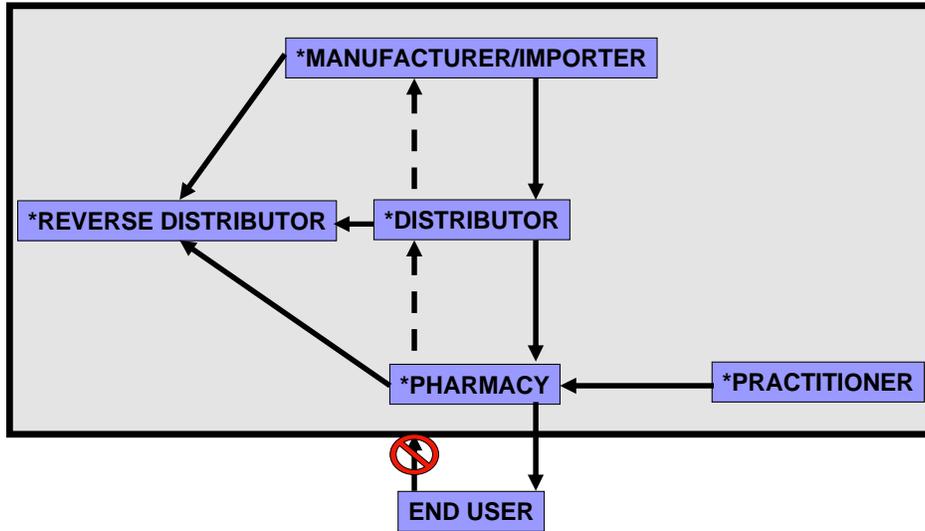


- **Website:** www.michigan.gov/deqmedwaste

Determining Disposal Options for Wastes That Aren't Medical Waste

1. Identify if controlled substance and manage it under DEA regulations
 - Most strict management requirements for controlled substances (narcotics)
 - Limits disposal options
 - May request approval from DEA to destroy CS at site
 - Also has requirements for specific chemicals because of concerns with illegal drugs

DEA Controlled Substances Closed System



*DEA Registrant

For Controlled Substances questions...

DEA
431 Howard St.
Detroit, MI 48226
313-234-4377
313-234-4388

www.dea.gov

www.dea diversion.usdoj.gov

Determining Disposal Options

1. Identify if controlled substance and manage it under DEA regulations
2. **Identify if it is a waste**
 - **When and where is it decided to discard it?**
 - **Is a reverse distributor being used?**
 - **Can't use reverse distributors as a means to dispose of obvious wastes like used IV bags etc. as a way to avoid regulations...**

Determining Disposal Options

1. Identify if controlled substance and manage it under DEA regulations
2. Identify if it is a waste
3. Identify if container meets definition of being empty

Empty Pharmaceutical Containers

NEW rule applies IF:

- the pharmaceutical was an acute hazwaste only because of a characteristic
- the remaining formulation in the container or liner does not exhibit that characteristic
- as much as possible is removed from container under normal practices
- 1" or less remains or
- not more than 3% by weight of the container capacity remains

= EMPTY CONTAINER

For some facilities, this change may lower their generator status since they will no longer need to add the empty nitroglycerine vials when calculating their hw generation

Does that mean this “empty” rule applies to all P listed pharmaceutical wastes?

Not necessarily, need to first look at the table in the rules and see if has a hazard code

Table 205a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P081	55-63-0	Nitroglycerine	(R)
P084	4549-40-0	N-Nitrosomethylvinylamine	
P085	152-16-9	Octamethylpyrophosphor-amide	
P087	30040-40-0	Organic acids	

Is there another “empty” container rule?

- Other acutely listed hw containers are empty when triple rinsed and meet the previously mentioned conditions about removing the material and amount of residue
- Most of these pharmaceutical containers are handled as hazardous or universal waste because of the hassle of handling small vials like this

Rinsate would need to be handled as hw

So how are drug vials regulated?

- Unbroken and empty vials = solid waste
- Broken and/or contaminated with blood or body fluids = medical and MIOSHA Bloodborne infectious diseases regulated waste
- Unbroken and still contains listed or characteristic pharmaceuticals = hazardous or universal waste
- Unbroken and had contained P listed wastes but not triple rinsed = hazardous or universal waste

MIOSHA PART 554. BLOODBORNE INFECTIOUS DISEASES

R 325.70002 Definitions.

Rule 2. As used in these rules:

“Contaminated sharps” means any contaminated object that can penetrate the skin, including any of the following:

- (i) Needles.
- (ii) Scalpels.
- (iii) Broken glass.
- (iv) Broken capillary tubes.
- (v) Exposed ends of dental wires.

Determining Disposal Options

1. Identify if controlled substance and manage it under DEA regulations
2. Identify if it is a waste
3. Identify if container meets definition of being empty
4. **Determine if municipal sewer system accepts discharges of any wastes**
 - Discharges to septic systems is not allowed without permit from DEQ Water Bureau

This is not a recommended disposal option but if the WWTP will accept, the waste regulations allow it.

Get approval to discharge wastes in writing from the WWTP

5. Deciding to handle some wastes as universal waste

- Pharmaceuticals
- Devices containing elemental mercury
- Batteries
- Electric lamps
- Consumer electronics
- Antifreeze
- Pesticides

Universal waste requirements?

Need to know:

1. If the universal wastes are liquids or solids
2. If the shipment going out of state or to a Michigan facility
3. If the shipment is going out of USA
4. Your universal waste handler status

SUMMARY OF UNIVERSAL WASTE HANDLER CATEGORIES		
	Small-Quantity-Handler¹ (SQH)	Large-Quantity-Handler¹ (LQH)
Amount of all universal waste accumulated at any time	Less than 5,000 kilograms (11,000 pounds)	5,000 kilograms (11,000 pounds) or more
Maximum amount that can be accumulated on-site	Less than 5,000 kilograms (11,000 pounds)	No limit
Maximum time period before waste must be shipped	1-year after generated or received from another facility	1-year after generated or received from another facility

Currently MI and FL have option for handling pharmaceuticals as UW, but EPA is evaluating to add it as an option at the federal level

To determine your facility's current universal waste generator classification

- Add up ALL universal waste accumulated at any time
- Once a LQH, stay at that level through the end of the calendar year

DEQ guidance with drug information

WASTE MANAGEMENT GUIDANCE

UNIVERSAL WASTE

Universal wastes are specific types of hazardous waste generated by manufacturing industries, businesses, agencies, hospitals, and other waste generators whose management has chosen to handle in an alternative manner as identified in [325.322](#) in place of the hazardous waste requirements. The following may be handled as universal waste in Michigan:

- **Electrical lamps**, including fluorescent, high intensity discharge, sodium vapor, mercury vapor, neon, and incandescent lamps, and cathode ray tubes (CRTs) from computers and televisions (note CRTs may alternatively be managed as consumer electronics).
- **Devices containing elemental mercury**, including thermometers, switches, thermometers, manometers, barometers, anti-locking braking systems (ABS), gas flow regulators, hydrometers, blood pressure cuffs and various medical devices, etc.
- **Consumer electronics** which are devices run by electricity containing circuit boards commonly found in offices and homes such as computers, fax machines, telephones, telecopiers, and various note CRTs may alternatively be managed as electric lamps.
- **Batteries**, including spent dry cell and wet-cell batteries.
- **Pesticides**, including certain insecticides, herbicides, or weed pesticides.
- **Pharmaceuticals**, including drugs for both human and veterinary use.

If generators do not handle these materials as universal waste, they need to manage them under the applicable [hazardous waste regulations](#). Those requirements will depend on a company's hazardous waste generator status — large quantity, small quantity, or conditionally exempt small quantity generator.

See the following publications for additional hazardous waste guidance:

- [Electric Lamps](#)
- [Electronic Equipment](#)
- [Pharmaceutical Waste](#)

How should residents handle these wastes?

Although households are exempt from the hazardous waste regulations, residents are encouraged to handle these wastes properly:

- For **electronics** from home: take devices to [community electronics collection programs](#).
- For other wastes from home: contact your [local municipal authorities](#) for the recycling and disposal options, or the local [household hazardous waste collection program](#), or sites listed on [www.epa.gov/ehp](#).
- For **unopened pharmaceuticals** from home: See the publication [A Family's Prescription Drug Disposal](#). It is no longer recommended that medications be flushed down the drain.
- For **unopened pesticides** from home: Take pesticides to your local [household hazardous waste collection](#) or [MSA Clean Dumps Program](#). Some programs will also take elemental mercury.
- If no recycling or alternative collection program is available, check if your solid waste hauler and licensed disposal company will accept the items for disposal.

Hazardous Waste Generator Status Categories in 2016 month, the total amount of ALL nonacute hazardous waste is generated and accumulated at the following volumes:

Large Quantity Generator (LQG): more than 2,200 pounds (and/or more than 2.2 pounds of acutely and severely toxic hazardous waste is generated.)

Small Quantity Generator (SQG): 200 pounds to less than 2,200 pounds. Accumulation never exceeds 13,200 pounds.

Conditionally Exempt Small Quantity Generator (CESQG): less than 220 pounds. Accumulation never exceeds 2,200 pounds.

There are site storage time limits and other requirements. Contact the DEQ Environmental Assistance Center at 800-655-6275, or your local [DEQ Waste and Contaminant Release Program office \(WCRC\)](#) for more hazardous waste information. See the [State of Michigan guidance](#) about what is "universal."

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
JENNIFER N. GONZALES, Governor | STEVEN S. CHASE, Director
www.michigan.gov/deq
Environmental Assistance Center 800-655-6275

WASTE AND HAZARDOUS MATERIALS DIVISION
PO BOX 30041
LANSING MI 48260
616-286-6000

Includes link to 10 Step Blueprint for Managing Pharmaceutical Waste
<http://www.hercen-ter.org/hazmat/ten-stepblueprint.pdf>

www.deq.state.mi.us/documents/deq-ead-tas-univwaste.pdf

10 step is recently revised

On-site Pharmaceutical UW Management Requirements

- Use structurally sound containers
- Keep containers closed
- May disassemble packaging and sort pharmaceuticals without permit
- Keep incompatible pharmaceuticals segregated and adequate distance apart to prevent them from reacting with each other

Pharmaceutical Universal Waste

- **Keep original labels on containers**
- **If original label is not readable or available, add a label identifying contents, or label “Universal Waste Pharmaceutical”**
- **Need to ship off-site within 1 year**
 - **Haul yourself to another UW handler or destination facility**
 - **Hire transporter company**

Handling UW spills

- Employees handling UW need to be trained on how to respond to spills
- Overpack leaking containers
- Immediately cleanup releases
- Characterize and properly handle debris
- Release reporting requirements would depend on situation/chemical

If shipping to another state...

- If that state does not include pharmaceuticals as UW, it will be necessary to ship it as hazardous waste
- It can be managed as universal waste at the site, but before shipping it would need appropriate hazwaste labeling added

Small Quantity Handler shipping in-state and hiring transporter

- If liquid UW, need a site identification number (or if have other regulated HW/LIW)
- If liquid UW, must use uniform hazardous waste manifest or get receipts if transporter using consolidated manifest; if other UW are USDOT hazardous material those would need shipping papers
- If liquid UW, need to use permitted and registered transporter

I'll talk later about hauling your own to a collection program

Large Quantity Handler shipping in-state and hiring transporter

- Must notify DEQ on form EQP5150 and get site identification number
- If liquid UW, must use uniform hazardous waste manifest or get receipts if transporter using consolidated manifest; if other UW are USDOT hazardous material those would need shipping papers
- If liquid UW, need to use permitted and registered transporter

Considering hauling own waste?

- CESQG may haul ≤ 55 gallons of their own liquid waste, including hazardous waste
- SQG and LQG may haul ≤ 55 gallons of their own liquid industrial waste (not hazardous waste)
- Confirm insurance company provides coverage
- Designated facility must have notified WHMD of activity and meet requirements

Shipping Record when hauling ≤ 55 gallons own waste

A record must be with the shipment. Identify:

- Where the waste came from
- What is the waste
- How much
- Where it is going

Additional requirements if hauling more than 55 gallons LIW

Need to notify WHMD of activity

Need to submit MCS 90 insurance form to WHMD

Need to manifest waste shipments

More recordkeeping requirements

- Designated facility must sign for shipment acknowledging receipt
- Generator must provide designated facility with copy
- Generator and designated facility must keep records at least 3 years from shipment date

If hauling > 55 gallons own waste

- **Must notify WHMD**
- **Must use manifests**
- **Mail copies to Manifest Unit by 10th of month after shipment:**
- **Get copies back from disposal company**
- **Keep copies at least 3 years**

The image shows a sample of a Michigan Hazardous Waste Manifest form, Form No. 1000-001. The form is marked "VOID" in large purple letters. It includes sections for Generator Information, Transporter Information, and a table for waste description and quantity. The form is titled "Please print or type. Form designed for use on any 11x17 inch printer." and "Form No. 1000-001".

Ordering info and instructions at www.michigan.gov/deq/waste

New national form does not include WHMD mailing address

6 page form, so may need to make copy to send to WHMD, if transporter gives you top copy in addition to generator copy, line out designated facility to destination state (if required) and write in generator copy

Manifest record keeping

- Set up filing system
- Let everyone involved in transportation know where they are kept so they can be located during an inspection if you are out of the office

When hiring a waste transporter

- Hire permitted & registered transporter for hazardous waste/liquid industrial waste
- Need site identification number
- Meet waste manifest or consolidated manifest requirements
- Submit manifest copies to WHMD
- Keep copies signed by designated facility at least 3 years

Transporter List is on

LIW and SQG and LQG must hire hazardous waste transporter and use waste manifests

What if we don't handle wastes as UW?

Need to meet requirements determined by hw generator status:

- **Notification**
- **Labeling**
- **Emergency postings and planning**
- **Training**
- **Transportation & Disposal Options**
- **Annual user fees if SQG/LQG and hw manifest processing fees**

DEQ Guidance to help explain process of identifying regulated wastes

WASTE MANAGEMENT GUIDANCE

WASTE CHARACTERIZATION

Businesses need to determine if the waste they generate is hazardous or non-hazardous, if the materials used, or the process generating the waste changes, or there are other impacts from business operations that may change the waste (e.g., cross contamination from benzene overpour), it will be necessary to re-evaluate the waste characterization. The regulations do not require a specific timeframe like annually to re-evaluate the waste. You may want to check if the disposal company has a retesting schedule.

Keep any records obtained during waste determinations (i.e., test analysis results, material safety data sheets (MSDS), or other documentation such as product information from a supplier or manufacturer) at least three years from the time the waste stream was last sent for treatment, storage, or disposal.

Who can do waste characterizations for a business?

A business may either:

> Hire a consultant or use a disposal company's waste characterization services. Be aware the waste generator is still ultimately responsible for meeting the waste regulations.

> Characterize the waste themselves by either:

- Using knowledge of the material and the process it came from, information from the material safety data sheets (MSDS), supplier and manufacturer literature, or other documentation may be useful when you have unused product needing disposal. A MSDS often provides information about the hazardous gas, or if a discarded product is a hazardous waste. A MSDS is not completely reliable for determining if a used material is hazardous waste because it does not include information about contaminants that might be in that waste. A waste stream may be presumed to contain certain constituents above regulatory thresholds for compliance purposes, but disposal facilities may still require testing before accepting a waste stream.
- Having a representative sample of the waste tested.

What are testing requirements?

It is recommended a business or consultant contact the disposal company before testing. They might require specific tests or only accept data company for a lot of these tests, the purpose acceptable laboratories. This step will prevent are not necessary or do not meet the disposal which laboratory methods can be used. If the in the [Sampling Strategy and Statistical Test](#) before testing discuss your cleanup situation.

It is wise to obtain estimates from two or more you money by showing that you do not have h use a reputable firm and obtain a written cost specific services the company will provide. For sampling waste, identify:

- Who is responsible for collecting sample
- Who will arrange to have it analyzed?
- Who will arrange to have an expert use
- Who will determine if the waste is haz

www.deq.state.mi.us/documents/deq-ess-p2tas-wastecharacterization.pdf



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
400 W. State St., Lansing, MI 48906-0001
www.michigan.gov/deq
Environmental Assistance Center: 800-480-6079

WASTE AND HAZARDOUS MATERIALS DIVISION
PO BOX 3024
LANSING MI 48906

NEED MORE HELP WITH WASTE?

- Call the WHMD District Office
- Call the Environmental Assistance Center at 800-662-9278 or email deq-ead-env-assist@michigan.gov
- Work with a consultant or disposal company

H2E consultant/waste management company list at <http://www.h2e-online.org/directory/ViewCategories.cfm?CategoryId=4>