

# What Waste Regulations Apply to Unwanted Pharmaceuticals?

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# Where does a medical facility start?

- Decide if have in-house staff to meet waste determinations and management requirements

AND/OR

- Hire consultant/waste management company

# What are the options for handling unwanted drugs?

- Need to first identify which regulation applies
- Then manage and dispose of them under that regulation's requirements

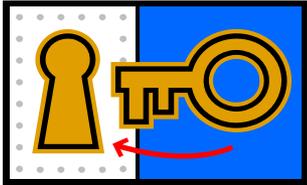
# What NOT to do with unwanted drugs

- Do NOT put unwanted drugs in medical waste red bags or sharps containers
- Do NOT burn the drugs or any other business waste
- Do NOT flush hazardous waste drugs down the drain

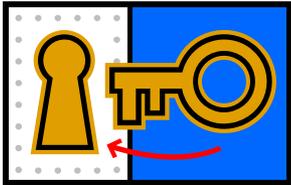
# How does someone begin?

- 1. Become familiar with the different regulations and the oversight agency**
- 2. Identify all the waste generated**
- 3. Apply the storage, transportation, and disposal requirements for your type of waste**
- 4. Consider different practices or using alternative drugs or prep/delivery systems that generate less waste or less toxic waste so fewer regulations apply**

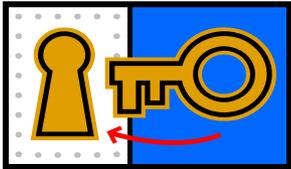
# KEY TO UNDERSTANDING THESE REGULATIONS



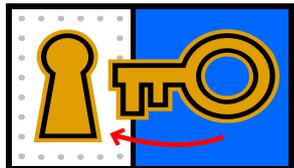
**Each regulation defines “HAZARDOUS” differently**



**“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**

# 1. Where do I find DEQ regulations?

The screenshot shows the Michigan Department of Environmental Quality website. At the top, there are utility links: Printer Friendly, Text Version, Email Page, and A- A+Text Size. The main content area is titled 'Laws and Rules' and features an 'Overview' section. The overview text states: 'Environmental requirements are included in both state and federal statutes, also called acts, and administrative rules. Most of Michigan's environmental acts were consolidated into the Natural Resources and Environmental Protection Act, 1994, PA 451, as amended (Act 451). Act 451 is organized into sections called "Parts." Be aware that some administrative rules still refer to original environmental act numbers prior to their being included as Parts of Act 451 and that there are other state environmentally-related acts that are not incorporated into Act 451 at this time.'

On the left side, there is a 'key topics' menu with the following items: 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.

On the right side, there are several navigation sections: 'Departments/Agencies', 'Online Services', 'Surveys', 'RSS Feeds', 'DEQ Quick Links' (including DEQ Calendar, DEQ Military Salute, DEQ Who Does, What List PDF, DEQ Publications, DEQ Acronyms PDF, DEQ Laws and Rules, DEQ Shortcuts XLS, Public Comment Opportunities, DEQ Staff Spotlight, DEQ Forms, DEQ Training & Workshops), 'Quick Links' (including Compliance Assistance), and three promotional banners for EnviroFlash, MIair, and MiSWIM.

Two red circles are drawn on the page: one around the 'DEQ Laws and Rules' link in the 'DEQ Quick Links' section, and another around the 'Environmental Laws and Rules Database' link in the 'Information' section.

# Regulations and Agencies

- **Controlled Substances Act (CSA) and rules**
  - Overseen by US DEA
  - Most strict management requirements for controlled substances (narcotics)
  - Limits disposal options
  - Also has requirements for specific chemicals because of concerns with making and using illegal drugs; some of those regulated chemicals can also be hazardous waste

# Waste Management Regulations

- Hazardous Waste (Part 111 & rules, RCRA)
  - **Universal Waste R 299.9228 + 40 CFR 273**
  - Mixed Waste (Hazwaste + Radioactive materials)
- Liquid Industrial Waste (Part 121)
- Solid Waste (Part 115 & rules)
- Medical Waste Regulatory Act (MWRA & rules)
- Water Resources Protection (Part 31 & rules)

# Transportation Regulations

- **Hazardous Materials Transportation Act 138 of 1998 overseen by WHMD**
- **Federal Hazardous Materials Transportation Act and rules overseen by Michigan State Police (MSP) Traffic Safety Division and USDOT**
- **Act 181 of 1963 Motor Carrier Safety Act overseen by MSP**
- **Act 300 of 1949 Michigan Vehicle Code overseen by MSP**

# Examples of MI Dept of Community Health Regulations

*“Prescription medication that is no longer required by a resident shall be properly disposed of {for small group adult day care}*

OR

destroyed {for adult foster care homes}  
*after consultation with a physician or a pharmacist”*

## 2. Identify ALL wastes generated

- The amount of ALL hazardous waste generated in a calendar month and the amount of ALL universal waste accumulated determines what regulations apply to the facility
- Important to properly characterize and separate the different regulated wastes

# When is an Outdated Drug a Waste?

- **At the time and place the decision is made to discard it**
- Enables shipping of potentially creditable outdates to a reverse distributor as product
- Hospital is responsible for doing due diligence in the selection of a reverse distributor
- PROHIBITS the shipping of waste-like items, such as unused IVs, partial vials, expired repacks, samples

# Starting point for identifying waste

- Use information in guidance documents
- Look at Material Safety Data Sheets (MSDS) and marketing literature for the products
- Look at all current wastes being generated
  - Are medical waste and hazardous waste being mixed together?
  - Are the same solvents and products being used?
  - Do you mix listed wastes with other waste?
  - Were the wastes properly characterized and counted in the first place?

# Look for wastes all over the site

- **Pharmacy**
- **Laboratories**
- **Radiology department**
- **Patient areas and monitoring equipment**
- **Staff cell phones and pagers**
- **Kitchens**
- **Maintenance Dept (buildings and grounds)**
- **Offices**
- **Bathrooms/wash stations**

# Solid waste

- Non hazardous wastes that pass the paint filter test and not regulated under another law
- Banned waste from landfills
  - **Regulated medical waste**
  - **Hazardous waste from SQGs and LQGs**
  - **Liquid waste**
  - **+ Other wastes listed in the banned waste brochure on internet**

# Liquid Industrial Waste

- **Non hazardous liquid wastes from all kinds of facilities**
- **“Liquid” is based on paint filter test results**

# Examples of nonhazardous liquids

- **Formalin (not contaminated with other hw)**
  - Check if WWTP will allow discharge
  - Fixed specimens are not medical waste and can be double bagged and landfilled if those authorities accept
- **Embalming fluids**
- **IV fluids - Dextrose & Sodium chloride**
- **Septage waste mixed with other non hazardous discarded wastes**

# Liquid Industrial Waste

## Basic On-site Requirements

- Keep containers closed
- Protect containers from vandals and weather
- Label containers so people know what it is i.e. “Used oil”

# Medical Waste Examples

- Sharps
- **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

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
WASTE AND HAZARDOUS MATERIALS DIVISION

**MEDICAL  
WASTE**

Public Act and Rules Governing  
Disposal of Medical Waste



800 1152 6228(0)

# Mixed Medical Waste + Hazardous Waste

- **Do NOT mix drugs and other hazwaste with medical waste**
- **If necessary change procedures**
- **If you do mix them, must manage all of it as hazardous waste**  
**\$\$\$ disposal costs**



# Hazardous Waste

- **Listed**
  - **P-listed – acutely hazardous \***
  - **U-listed – toxic**
  - **F-listed – toxic or ignitable**
- **Characteristic**
  - **Toxic**
  - **Ignitable**
  - **Reactive**
  - **Corrosive**



# P & U Listed Wastes

- Listed chemical is the sole active ingredient in the product
- Unused – drug was not given to patient
- Debris from a P or U listed spill cleanup

# Examples of P-listed wastes

- *Arsenic trioxide* P012
- **Epinephrine** \* (not salts) P042
- Nicotine P075
- **Nitroglycerin** \* P081
- Phentermine (CIV) P046
- Physostigmine (Antilirium) P204
- Physostigmine Salicylate P188
- Warfarin >0.3% P001

2.2 pounds of all acute hw = Large Quantity Generator

# Examples of U-listed wastes

- **Warfarin <0.3% \*** U248
- **Lindane \*** U129
- **Selenium Sulfide \*** U205
- **Cyclophosphamide** U058
- **Daunomycin** U059
- **Diethylstilbestrol** U089
- **Melphalan** U150
- **Mitomycin C** U010
- **Streptozotocin** U206
- **Saccharin** U202
- **Chlorambucil** U035
- **Selenium Sulfide** U205
- **Uracil Mustard** U237
- **Chloral Hydrate (CIV)** U034

# Additional Michigan listed hw drugs

- 001U dactinomycin (Cosmegen)
- 070U hydroquinone
- 077U lithium and compounds (aspartate, carbonate, citrate)
- 080U mestranol (Norinyl, etc.)
- 104U nitrogen mustard (Mustargen, mechlorethamine)
- 113U phenazopyridine HCl (Pyridium)
- 115U phenobarbital
- 116U phenytoin
- 117U phenytoin sodium
- 127U propylthiouracil

# Example of F listed waste-solvent in lab

**F003 = Following spent NONHALOGENATED solvents:**

- **xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol;**
- **all spent solvent mixtures and blends containing, before use, only the above spent nonhalogenated solvents; and**
- **all spent solvent mixtures or blends, containing before use, one or more of the above nonhalogenated solvents, and a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005; and**
- **Still bottoms from the recovery of these spent solvents and spent solvent**

# Toxicity Characteristic



- **D004-D043**
- **Materials meet or exceed the Toxicity Characteristic Leaching Procedure [TCLP] concentration levels listed in hazardous waste rules**

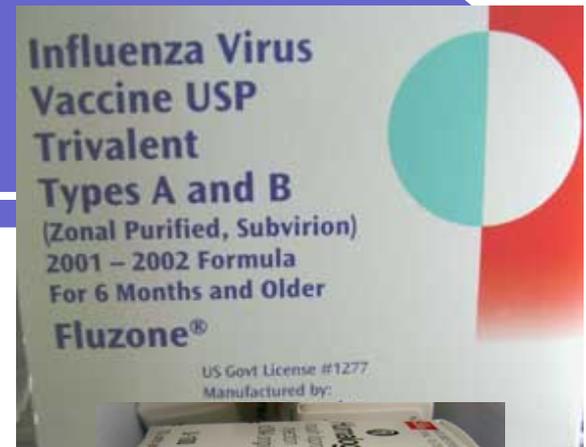
# Toxicity Examples

- Arsenic D004
- Barium D005
- Cadmium D006 (vitamins)
- Chromium D007 (injectable liquids)
- Lead D008 (x-ray gloves, aprons, walls batteries)
- Lindane D013 \*



# More Toxicity Examples

- Mercury D009 (Mercurochrome; mercury used as a preservative like thimerosal in flu and other vaccines, OTC products, medical devices, fluorescent lights, switches)
- m-cresol (preservative)
- Selenium D010 (injectable liquids)
- Silver D011 (burn creams)



# Corrosivity Characteristic



- **Hazardous waste number: D002**
- **Aqueous solution having a pH  $\leq 2.0$  or  $\geq 12.5$  or liquid that corrodes steel [SAE 1020] at a rate more than 6.35 mm per year at 130°F)**

# Corrosivity Examples

- **Not commonly found in many pharmaceuticals**
  - **Acetic and phosphoric acids in eye medications**
  - **Wart remover solutions containing trichloroacetic acid**
- **Primarily compounding chemicals**
  - **Glacial Acetic Acid**
  - **Sodium Hydroxide**
  - **Liquid phenols (carbolic acid)**



# Ignitability Characteristic



- **Hazardous waste number: D001**
- **Non-aqueous solutions with flash points <math><140\text{ }^\circ\text{ F}</math>**
  - **Some wart removal medications**
- **Aqueous Solution containing 24% ethanol or more by volume & flash point <math><140\text{ }^\circ\text{ F}</math>**

Need to check MSDS because formulations vary

# More Ignitable Examples

- **Mixtures of more than 24 percent alcohol content:**
  - **undiluted injectable Taxol and VP-16 are 49 percent and 30 percent alcohol respectively in their concentrated forms.**
  - **Brevibloc (alcohol concentrations vary)**
  - **Rubbing alcohol**
  - **Disinfectant hand washing chemicals**

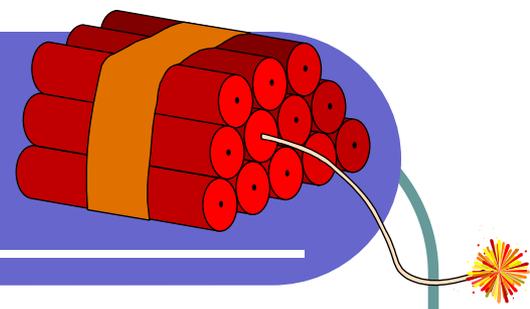
MI is more stringent than federal regulations

# More Ignitable Wastes

- Ignitable compressed gas
  - Flammable aerosols
  - **REVISED** description see 40 CFR 261.21(a)(3)
- Oxidizers (as described by DOT)
  - Potassium permanganate
  - Silver nitrate
  - OTC ear wax removers  
carbomide peroxide



# Reactivity Characteristic



- **Hazardous Waste Number: D003**
- **Normally unstable and readily undergoes rapid or violent change without detonating**
- **Reacts violently with water**
- **Forms potentially explosive mixture with water**

**MI did not adopt the federal exclusion for Nitroglycerin formulations but amended the empty container rule to address remaining residue – this may affect generator status for some facilities**

# 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

# So how are drug vials regulated?

- Broken and contaminated with blood or body fluids = medical and MIOSHA Bloodborne ... regulated waste
- Unbroken and contains listed or characteristic pharmaceuticals = hazardous or universal waste
- Unbroken and empty vials = solid waste

# What are the waste management options for listed or characteristic drugs?

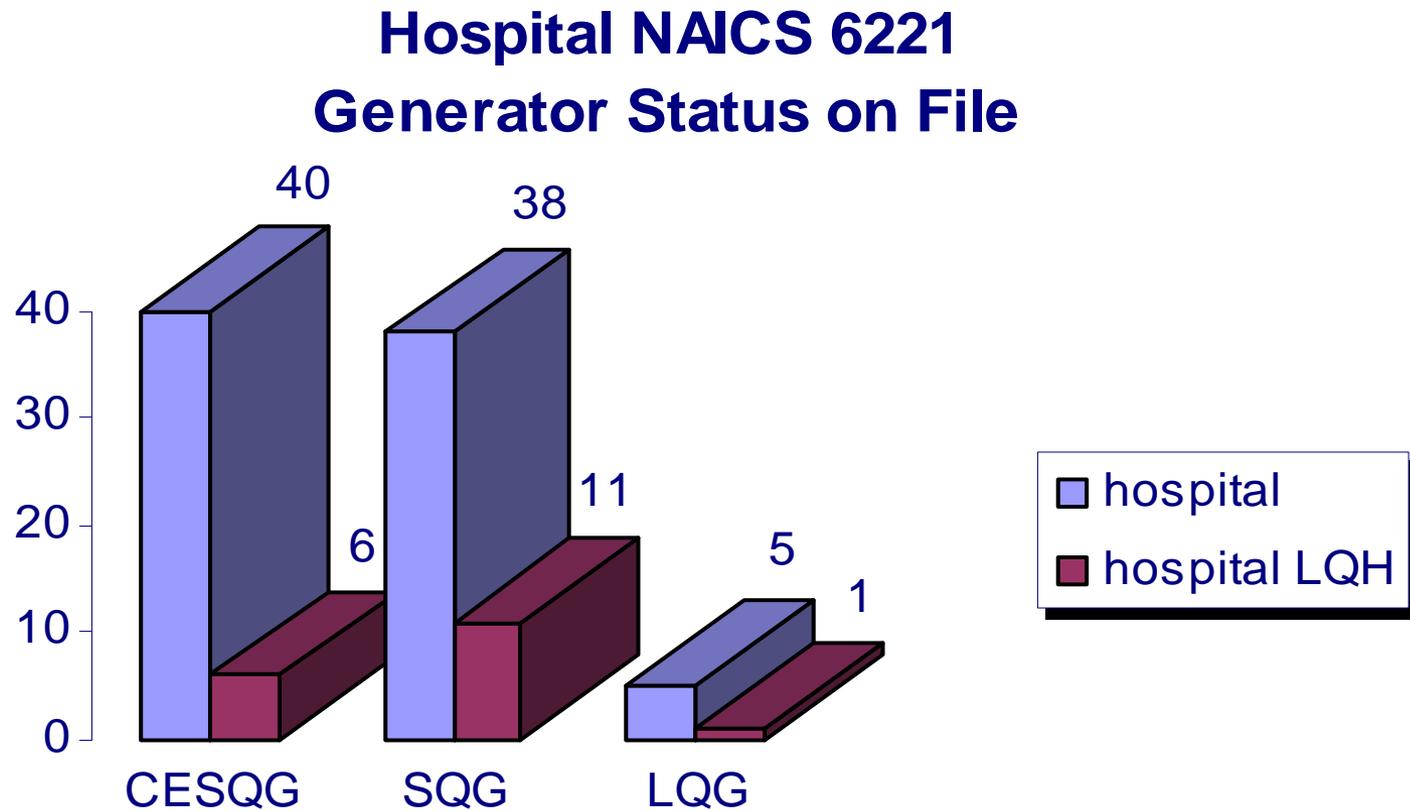
- Handle as hazardous waste or universal waste<sup>1</sup>
  - **Pharmaceuticals**
  - **Batteries**
  - **Devices containing elemental mercury**
  - **Electric lamps**
  - **Electronics**
  - **Pesticides**
  - **Antifreeze**

1 First needs to meet hazardous waste definition

# Generator Status Categories

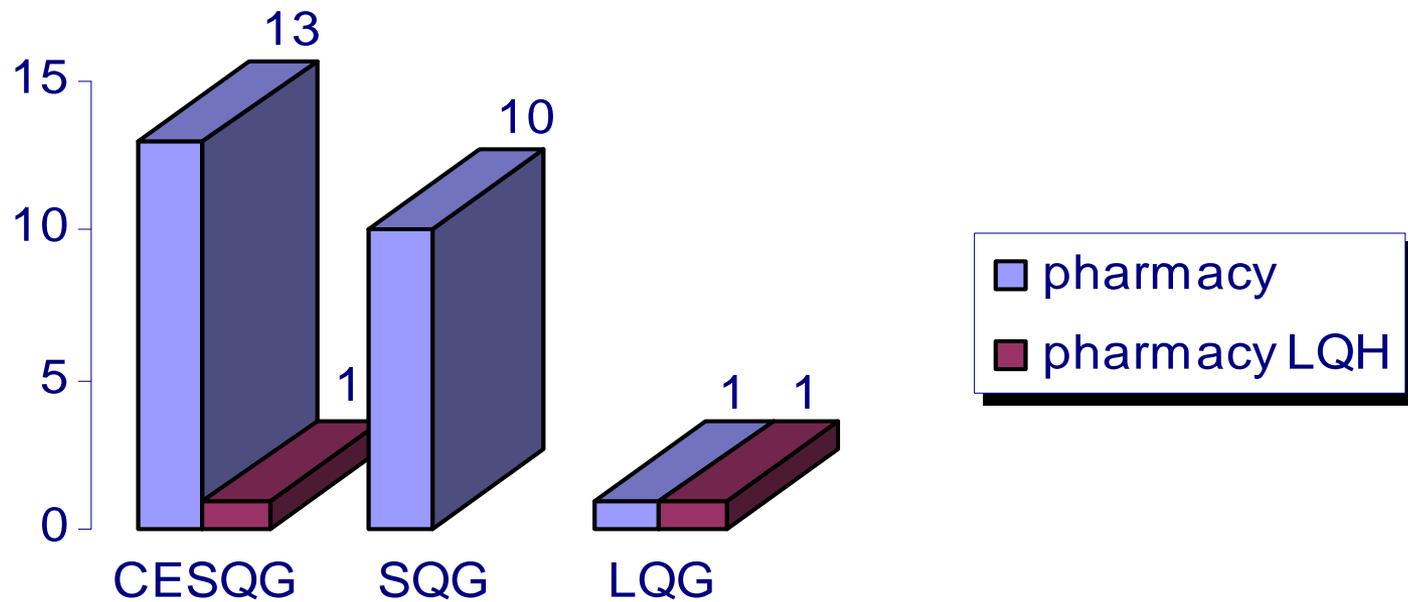
- **Conditionally Exempt Small Quantity Generator**
- **Small Quantity Generator**
- Large Quantity Generator
- **Small Quantity Handler**
- Large Quantity Handler

# Hospital Generator Status on file



# Pharmacy Generator Status on file

## Pharmacy NAICS 4461 Generator Status on File



# To determine your facility's current generator classification

- Add up ALL the hazardous waste generated at the site in a calendar month
- The amounts are calculated per site
- One site is under one identification number and is contiguous property
- Calculate the amount *generated*, not necessarily the amount *shipped*.

# Some things you don't have to count

- Empty containers
- Universal waste
- Drugs returned to reverse distributor as products
- Lab samples until no longer needed
- Approved wastewater discharges (exemption begins at the point of discharge into sewer system)

TABLE 2.3

# SUMMARY OF THE HAZARDOUS WASTE GENERATOR CATEGORIES AND REQUIREMENTS

	Conditionally Exempt Small Quantity Generator (CESQG) <sup>1</sup>	Small Quantity Generator (SQG) <sup>1</sup>	Large Quantity Generator (LQG)
<b>Amount of acute or severely toxic hazardous waste generated or accumulated at any time<sup>2</sup></b>	1 kilogram (2.2 pounds) or less	1 kilogram (2.2 pounds) or less	More than 1 kilogram (2.2 pounds)
<b>Amount of acute spill residue or contaminated soil generated or accumulated at any time<sup>2</sup></b>	100 kilograms (220 pounds) or less	100 kilograms (220 pounds) or less	More than 100 kilograms (220 pounds)
<b>Amount of non acute hazardous waste generated in 1 calendar month</b>	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
<b>Approximate volume of non acute hazardous waste<sup>3</sup></b>	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
<b>Maximum amount of non acute hazardous waste that can be accumulated on-site</b>	1,000 kilograms (2,200 pounds)	6,000 kilograms (13,200 pounds)	No maximum amount
<b>Maximum time period before waste must be shipped</b>	No time limit unless amount exceeds 2,200 pounds	180 days, unless shipping over 200 miles, then 270 days	90 days

## SUMMARY OF UNIVERSAL WASTE HANDLER CATEGORIES<sup>1</sup>

	Small Quantity Handler <sup>1</sup> (SQH) <sup>2</sup>	Large Quantity Handler <sup>1</sup> (LQH) <sup>1,2</sup>
Amount of all universal waste accumulated at any time <sup>3</sup>	Less than 5,000 kilograms (11,000 pounds) <sup>3</sup>	5,000 kilograms (11,000 pounds) or more <sup>3</sup>
Maximum amount that can be accumulated on-site <sup>3</sup>	Less than 5,000 kilograms (11,000 pounds) <sup>3</sup>	No limit <sup>3</sup>
Maximum time period before waste must be shipped <sup>3</sup>	1 year after generated or received from another facility <sup>3</sup>	1 year after generated or received from another facility <sup>3</sup>

# How do I know what status is on file with DEQ?

- Use the Waste Data System on the Internet [www.deq.state.mi.us/wdsp](http://www.deq.state.mi.us/wdsp)
- Call the WHMD District Office
- Call Environmental Assistance Center at 800-662-9278 for referral to staff



# Department of Environmental Quality



## 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

## 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

Search

Reset Form

Please note: The search is limited to 3000 records

## General Site Information

### General

Site ID / WMD ID

Legal or Site Name

Historic Names

Is Indian Land  Yes  No

### Location Address

Address

City

State

County

Postal Code

Country

Michigan District

### NAICS Codes

NAICS Code

+ click to expand

## Hazardous & Liquid Industrial Waste Site Activity Information

+ click to expand

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

+ click to expand

## Hazardous Waste Permitting & Corrective Action

+ click to expand

## Hazardous Waste Manifest Data (2001 to 2006)

+ click to expand

## Hazardous & Liquid Industrial Waste Transporters

+ click to expand

## Solid Waste

Site Identification

- [CME](#)
- [Compliance Actions](#)
- [Evaluations](#)
- [Violations](#)
- [Manifests](#)
- [Manifests](#)
- [User Charges](#)
- [User Charges](#)

Site Information

<b>Site ID</b>	MID099662439	<b>Site Legal Name</b>	ST JOSEPH MERCY HEALTH SYSTEM
<b>WMD ID</b>	398116	<b>Site Specific Name</b>	ST JOSEPH MERCY HOSPITAL
<b>District</b>	JACKSON		
<b>NAICS Codes</b>	62211 - General Medical and Surgical Hospitals		
<b>Location Address</b>		<b>Mailing Address</b>	
5301 HURON RIVER DR E		P O BOX 995	
ANN ARBOR, MI 48106		ATTN: ACCOUNTS PAYABLE	
County: WASHTENAW		ANN ARBOR, MI 48106	
Country: U.S.A.		County: WASHTENAW	
		Country: U.S.A.	

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

Current Site Activities

Discovery Date	Source	Activity
3/10/2006	Notification (Site)	<p><b>Hazardous Waste Activities</b> Small Quantity Generator</p> <p><b>Polychlorinated Biphenyls</b> Generated an item, product, or material containing a concentration equal to or greater than 100 ppm of PCB</p> <p><b>Liquid Industrial Waste Activities</b> LIW Generator</p> <p><b>Universal Waste Activities</b> Large Quantity Handler Batteries - Generated Thermostats - Generated Mercury Thermostats - Generated Elemental Mercury - Generated</p>

# Need to update notification or get new number?

## 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

<small>Required under authority of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Failure to submit this information may result in civil or criminal penalties.</small>		MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY Waste and Hazardous Materials Division			
<b>SITE IDENTIFICATION</b>					
<b>I. The form to be submitted</b>  CHECK CORRECT BOX(ES)  If submitting a subsequent notification you can contact the MDEQ-WHMD District or Lansing office for a pre-populated form. For locations and phone numbers go to <a href="http://www.michigan.gov/deq">www.michigan.gov/deq</a> .		<input type="checkbox"/> <b>as initial notification:</b> 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 \$50.00 fee on-line using a Master Card, VISA, or Discover Card ( <a href="https://www.paypal.com/mi/deq/initial">https://www.paypal.com/mi/deq/initial</a> ) or by check made payable to the State of Michigan. <b>Mail to MDEQ Revenue Office - HWLUC, PO Box 30657, Lansing, MI 48939-8157</b> OR <input type="checkbox"/> <b>as subsequent notification:</b> to change, update, or verify site information for an existing owner of a site with a previously issued Site ID number. <b>Mail directly to WHMD-MDEQ at WHMD-MDEQ, Notification Unit, PO Box 35241, Lansing, MI 48909-4797</b> if a fee is not required. Otherwise submit to MDEQ Revenue Office (see above).  AND ANY OF THE FOLLOWING <input type="checkbox"/> as a component of a Hazardous Waste Permit Part A (submit to WHMD-MDEQ) <input type="checkbox"/> as a component of the Hazardous Waste (biennial) Report (submit to WHMD-MDEQ)			
<b>II. Site's ID Number</b>		A. Site's Identification (ID) Number:			
<b>III. Name of Site</b>  TYPE OR PRINT CLEARLY		A. Legal Company Name:  B. Site Specific Name (d/b/a):			
<b>IV. NAICS for this site</b>		A.	B.	C.	D.
<b>V. Site Location Address and Other Site Information</b>  TYPE OR PRINT CLEARLY		Street Address line 1:  Address line 2: City, Town, or Village:  State, Province or Subdivision (2 letters): Country:  County Name (MI only): Zip or Postal Code: -  Tax Number: Approx / Ave Number of Employees:			
<b>VI. Site Mailing Address</b>  TYPE OR PRINT CLEARLY		Street Address line 1 or PO Box:  Address line 2:  City, Town, or Village: State, Province or Subdivision (2 letters):  Country: Zip or Postal Code: -			
<b>VII. Site Contact Person</b>  TYPE OR PRINT CLEARLY		First Name:	MI:	Last Name:	
		Phone Number: ( )		Phone number extension:	
		email address:		Fax number: ( )	
<b>VIII. Indian Reservation</b>		Facility on Indian Reservation Land <input type="checkbox"/> yes <input type="checkbox"/> no			

# What's required to handle pharmaceuticals as universal waste?

Need to know:

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

# 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

## 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  $\leq 55$  gallons of their own liquid waste, including hazardous waste
- SQG and LQG may haul  $\leq 55$  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 $\leq 55$ 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

# 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 10<sup>th</sup> of month after shipment:**
- **Get copies back from disposal company**
- **Keep copies at least 3 years**

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number 2. Page 1 of 3 3. Emergency Response Phone 4. Manifest Tracking Number

5. Generator's Name and Mailing Address Generator's Site Address (if different than mailing address)

Generator's Phone

6. Transporter 1 Company Name U.S. EPA ID Number

7. Transporter 2 Company Name U.S. EPA ID Number

8. Designated Facility Name and Site Address U.S. EPA ID Number

Facility's Phone

9a. Unit	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group, if any)	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
1							
2							
3							
4							

14. Special Handling Instructions and Additional Information

15. **GENERATOR/SUPPORTER'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled, and are in all respects (except for transport) according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's Officer's Printed/Typed Name Signature Month Day Year

16. International Shipments  Import to U.S.  Export from U.S. Port of entry/exit Date leaving U.S.

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name Signature Month Day Year

Transporter 2 Printed/Typed Name Signature Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space  Quantity  Type  Residue  Partial Rejection  Full Rejection

Manifest Reference Number U.S. EPA ID Number

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1	2	3	4

20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a.

Printed/Typed Name Signature Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

# 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

# What if we don't handle them 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**

# Common violations

- Improper labeling
- Failure to close containers
  - Unattended lab container with funnel
- Incorrect waste generator status 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

# Satellite Container

- **Label**
  - **Hazardous Waste**
  - **Waste name or waste number**
  - **Date reached 55 gallon limit (and then move within 3 days to accumulation area)**
- **Must be under “staff” control**
- **Keep closed**

# If SQG/LQG, are your hw accumulation containers closed and labeled with...

- Accumulation date?
- The words “Hazardous Waste”?
- Hazardous waste number(s)?



Storage label

**HAZARDOUS WASTE**  
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL  
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY  
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERATOR NAME \_\_\_\_\_ EPA # \_\_\_\_\_  
ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
EPADOT SHIPPING DESCRIPTION  
(PROPER SHIPPING NAME — UNNA NO. — CONSTITUENTS OR EPA WASTE CODE/CHARACTERISTIC)

DATE OF FINAL ACCUMULATION \_\_\_\_\_ SATELLITE ACCUMULATION \_\_\_\_\_ EMERGENCY RESPONSE GUIDE # \_\_\_\_\_  
REPORTABLE QUANTITY "RQ" IN POUNDS \_\_\_\_\_ LBS.

WHEN HANDLING OR DURING ROUTINE OR EMERGENCY EXPOSURE TO THE HAZARDOUS WASTE IN THIS CONTAINER, USE THE SAFETY EQUIPMENT CHECKED BELOW:

<input type="checkbox"/> Hard Hat	<input type="checkbox"/> Respiratory Protection
<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Air-Purifying Respirator
<input type="checkbox"/> Safety Goggles	Type _____
<input type="checkbox"/> Full Face Shield	<input type="checkbox"/> Fully Encapsulated Suit
<input type="checkbox"/> Protective Gloves	<input type="checkbox"/> Airborne Supplying Respirator
<input type="checkbox"/> Splash Apron	Type _____
<input type="checkbox"/> Protective Boots	

ACCEPTANCE ATTSOF \_\_\_\_\_ MANIFEST DOCUMENT # \_\_\_\_\_

IN THE EVENT OF A SPILL OF THIS HAZARDOUS WASTE, CONTACT THE U.S. COAST GUARD NATIONAL RESPONSE CENTER AT 800-424-8802 FOR INFORMATION AND ASSISTANCE AND THE 811 EMERGENCY PHONE, OR THE LOCAL OPERATOR IN THE COMMUNITY WHERE SPILL TOOK PLACE.

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Shipping label

# Emergency Planning & Training

**CESQG encouraged to post information by telephones & train**

**SQG required to post information & train**

**LQG must have written contingency plan, submit notices to responders, have employee training, and documentation**

HAZARDOUS WASTE EMERGENCY INFORMATION		
EMERGENCY	NAME _____	Map of facility with emergency equipment, spill equipment, exit routes, and alarm locations.
COORDINATOR	PHONE _____	
ALTERNATE	NAME _____	
	PHONE _____	
FIRE DEPT.	PHONE _____	
HOSPITAL	PHONE _____	
POLICE	PHONE _____	
Fire alarm is located: _____		
Spill control equipment is located: _____		
Fire extinguishers are located: _____		
_____		
_____		
_____		
National Response Center: 1-800-424-8802		Provided by: The Environmental Assistance Division and the Waste Management Division of the Michigan Department of Environmental Quality Environmental Assistance Center 1-800-662-3778
Michigan Pollution Emergency: 1-800-292-4706		
Other hazardous waste requirements may apply.		 

# NEED MORE HELP?

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

Did you know....

**There are only four words in the English language which end in "dous":**

- **Tremendous**
- **Horrendous**
- **Stupendous**
- **HAZARDOUS**