

What healthcare and vape retailers need to know about the new hazardous waste regulations in Michigan

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Today's Goals

Michigan's Hazardous Waste Pharmaceuticals (HWP) and Electronic Nicotine Delivery Systems (ENDS) Rules

- Overview
- New definitions
- Applicability
- Managing and disposal
- Waste characterization

Michigan's New Rules

Michigan adopted the Federal Subpart P Rules into Part 111 (Rules 824-833), effective May 5, 2025:

- Sewering prohibition (as of federal effective date August 21, 2019)
- 60 days to notify
- Hazardous Waste Pharmaceuticals (HWPs) can no longer be managed as Universal Waste
- Empty Container standards

Who do they apply to?

Rules apply only to specific sectors **and** specific waste types:

Sectors

- Healthcare facilities
- ENDS retailers
- Reverse distributors

Wastes

- Pharmaceuticals
- Electronic Nicotine Delivery Systems (ENDS)

Definitions - Sectors

“Healthcare Facility” means a person authorized to:

- Provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body;
OR
- Distribute, sell, or dispense pharmaceuticals, including over-the-counter pharmaceuticals, dietary supplements, homeopathic drugs, or prescription pharmaceuticals.

Definitions - Sectors

“ENDS Retailer” means a person that distributes or sells ENDS.

Includes retailers that sell products directly to consumers, wholesale distributors, and third-party logistics providers that serve as forward distributors.

Does not include manufacturers or reverse logistics centers.



Definitions - Sectors

“Reverse distributors” means a person that...

...receives and accumulates potentially creditable HWP facilitating or verifying manufacturer credit.

Definitions - Wastes

“Pharmaceuticals” means any drug or dietary supplement for use by humans or animals.

Includes:

- Prescription drugs
- Dietary supplements
- Over-the-counter drugs
- Homeopathic drugs
- Compounded drugs
- Investigational new drugs
- Pharmaceuticals remaining in non-empty containers
- Personal protective equipment contaminated with pharmaceuticals
- Clean-up materials from spills of pharmaceuticals

Definitions - Wastes

“Pharmaceuticals”

Do not include:

- Sharps (needles scalpels, lancets).
- Medical waste
- Medical devices (dental amalgams)

Definitions - Wastes

"Electronic nicotine delivery system" or "ENDS"
means...

any electronic device that can be used to aerosolize and deliver nicotine to the person inhaling from the device and any liquid nicotine, often referred to as "e-liquid", packaged for retail sale for use in an ENDS.



Wastes

ENDS

HWP

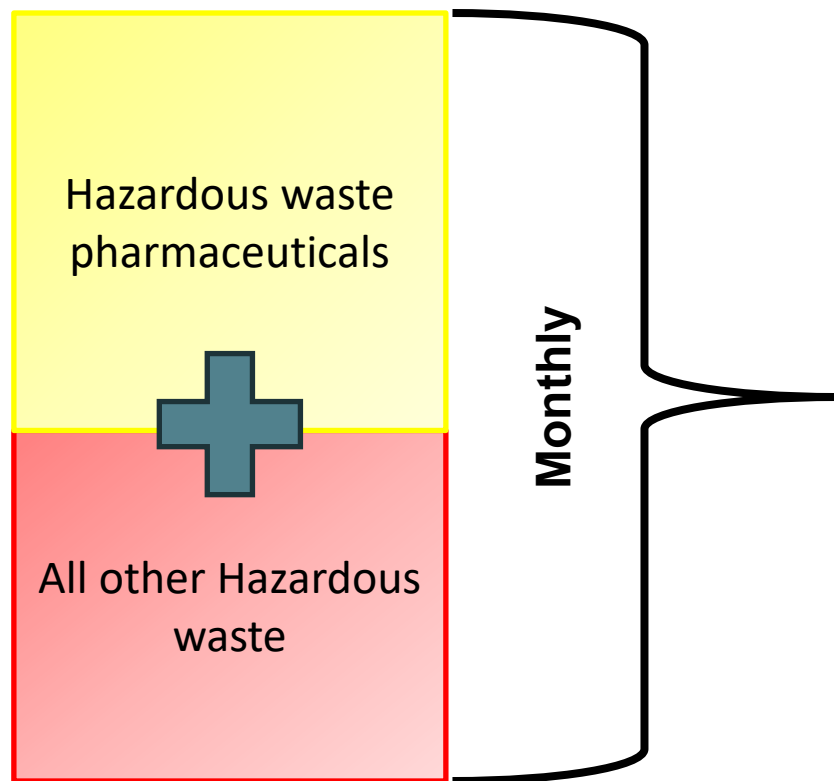
Non-creditable HW
(ENDS and HWP
requiring disposal)

Potentially
Creditable HWP

Evaluated HWP

Applicability

Are you required to manage HWP in accordance with these rules?



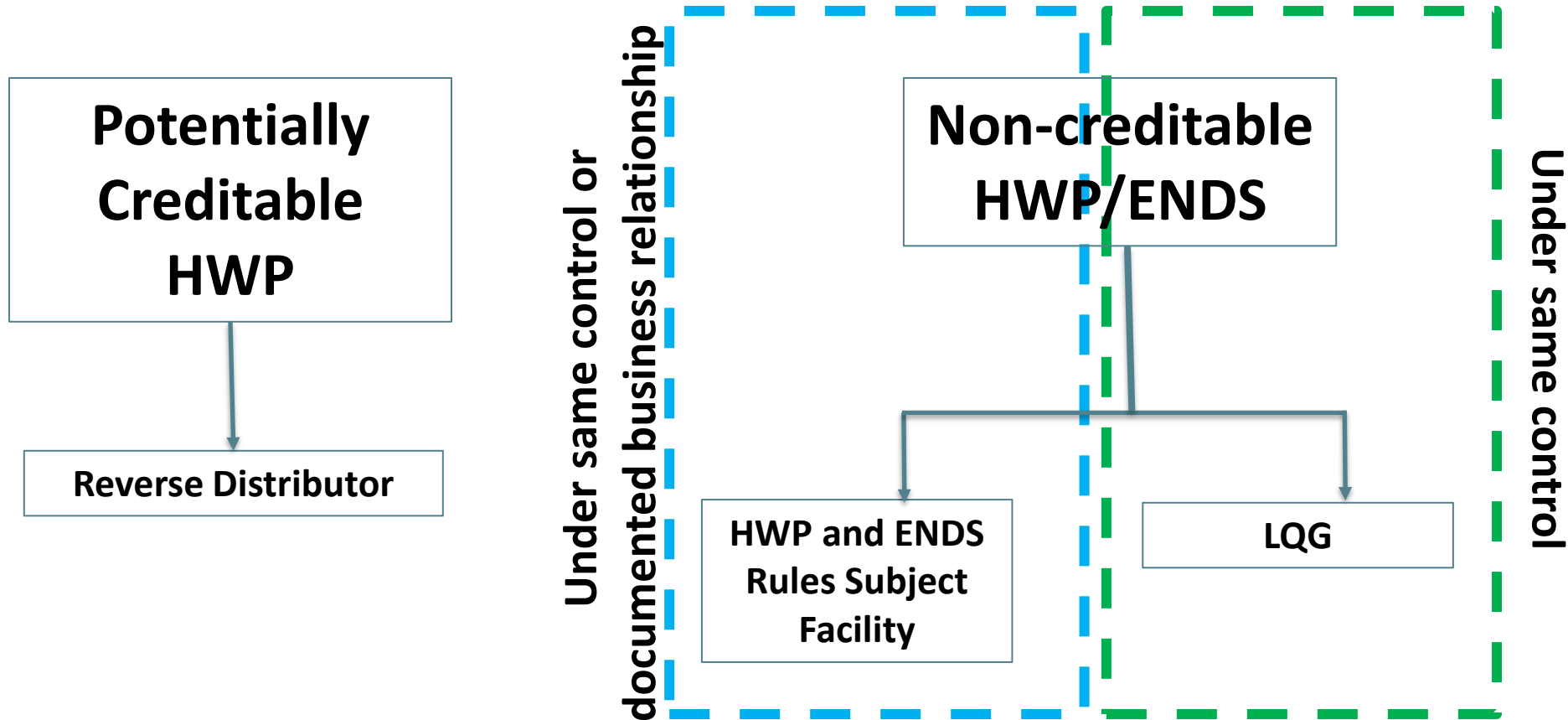
REQUIRED

> 100 kg (220 lbs.) non-acute
HW and/or
accumulate > 1 kg (2.2 lbs.)
acute HW

Optional

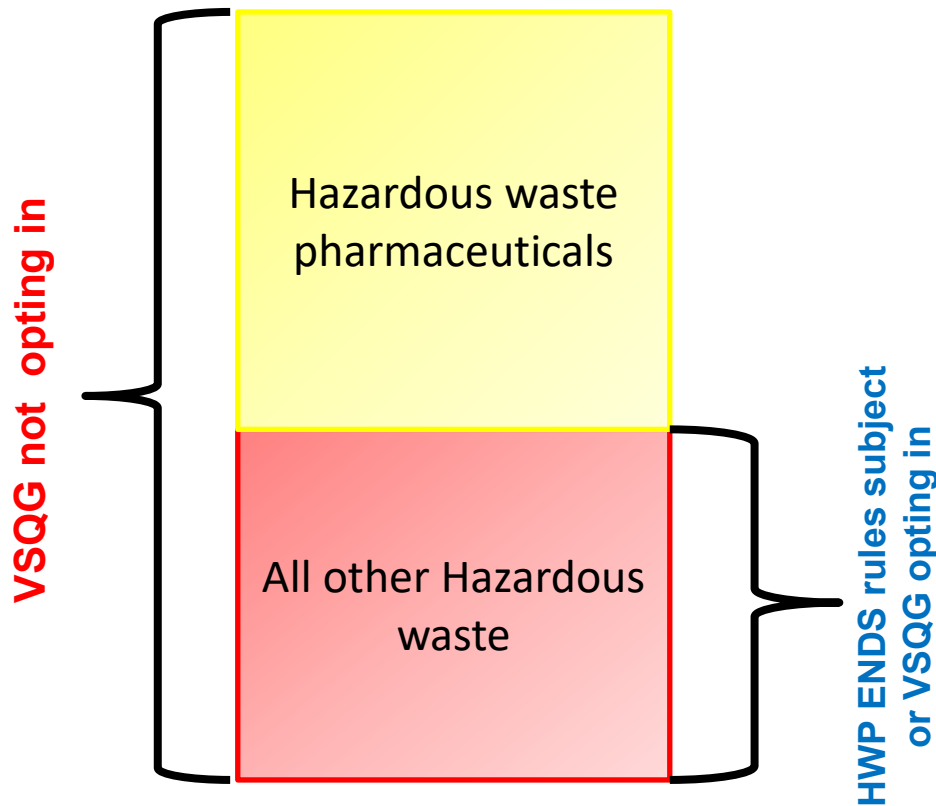
≤ 100 kg (220 lbs.) non-acute
HW and/or
accumulate ≤ 1 kg (2.2 lbs.)
acute HW

Applicability - VSQGs



Applicability

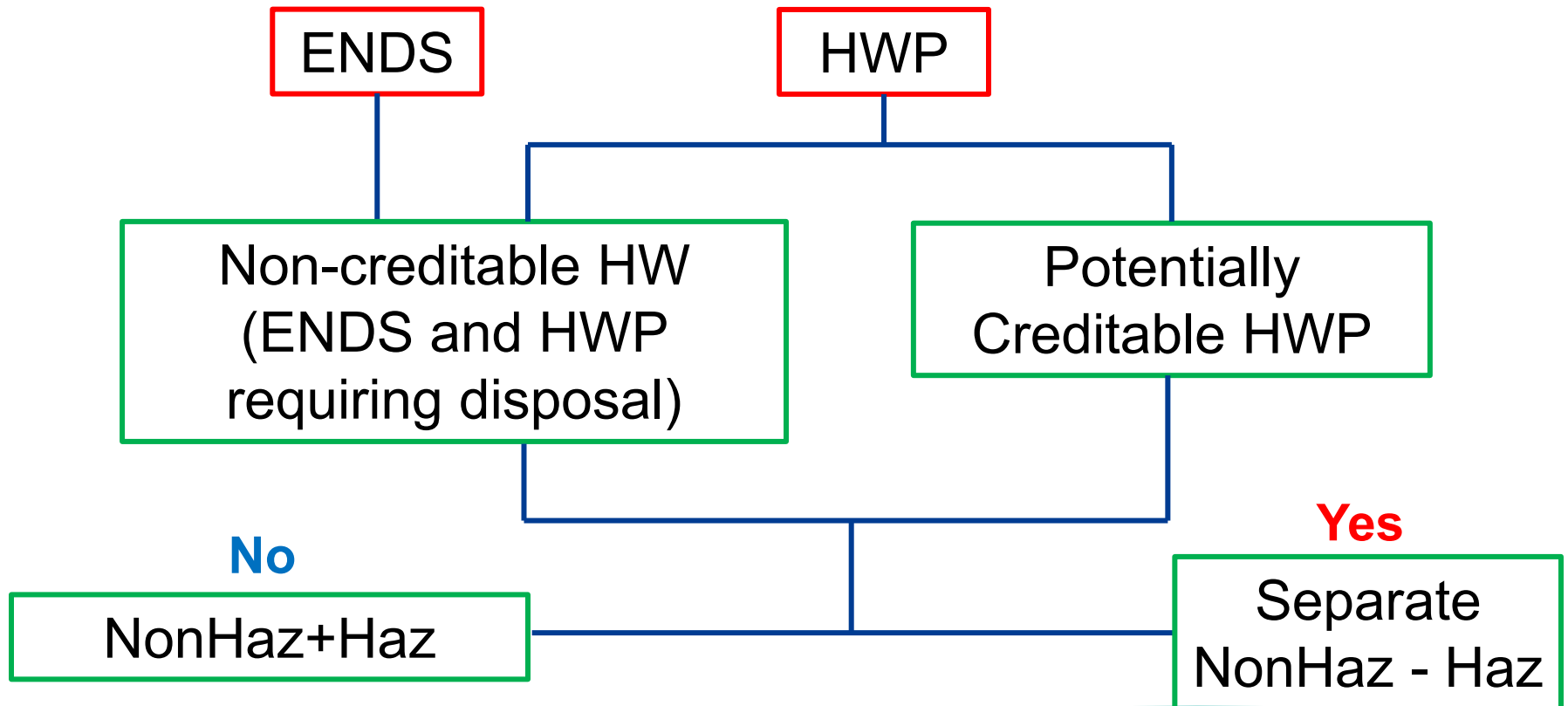
Hazardous waste counting – generator category



Category	Monthly generation of TOTAL hazardous waste
LQG	$\geq 1,000$ kg (2,200 lbs) and/or > 1 kg (2.2 lbs) acute
SQG	> 100 kg – < 1,000 kg (220 lbs – 2,200 lbs) and/or ≤ 1 kg (2.2 lbs) acute
VSQG	≤ 100 kg (220 lbs) and/or ≤ 1 kg (2.2 lbs) acute

Managing Waste

Characterization



Managing Waste

Accumulation Containers

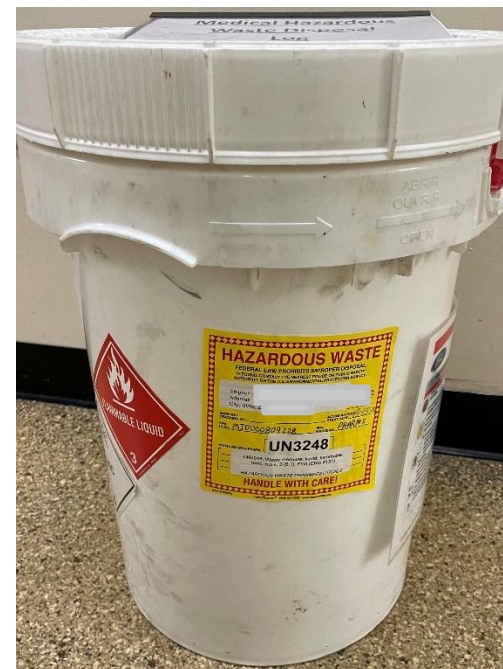
Potentially Creditable HWP

No requirements – Recommend best management practices (BMPs)

Non-creditable HW

Containers labeled with...

- Phrase
“Hazardous Waste
Pharmaceuticals” or “Hazardous
Waste Pharmaceuticals –
Electronic Nicotine Delivery
Systems”
- **All applicable waste codes***
- Containers are:
 - In good condition
 - Compatible with the waste
 - Closed
 - Controlled to prevent unauthorized access
- May commingle ignitable/reactive or incompatibles.
- Waste prohibited from being combusted may be in separate container.

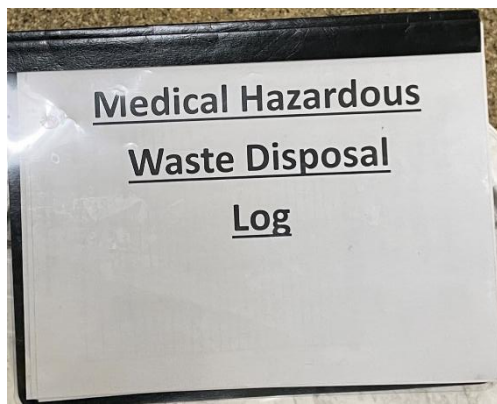


Managing Waste

Accumulation Time Limits

Potentially Creditable HWP

No requirements –
Recommend best
management practices



Non-creditable HW

- One year
- Must demonstrate by:
 - Marking the container with date it became a waste **OR**
 - Maintaining an inventory that identifies when it became a waste **OR**
 - Placing in designated area identifying the earliest date it became waste



Managing Waste

Shipping for disposal

Potentially Creditable HWP

Send to reverse distributor

- Any shipping document
 - Meet DOT regulations
- Confirmation of receipt

Non-creditable HW

Send to Permitted TSDF

- Uniform Hazardous Waste Manifest
 - Meet DOT regulations
 - PHARMS or PHRM waste code
 - Waste codes if prohibited from combustion
 - Confirmation of receipt from TSDF
 - [Exception report](#) if >60 days
- Subject to LDR
 - No waste codes

Managing Waste

Training

Potentially Creditable HWP

No requirements – BMPs!

Non-creditable HW

One time

- Personnel familiar with proper waste handling and emergency procedures
- Maintain records for 3 years

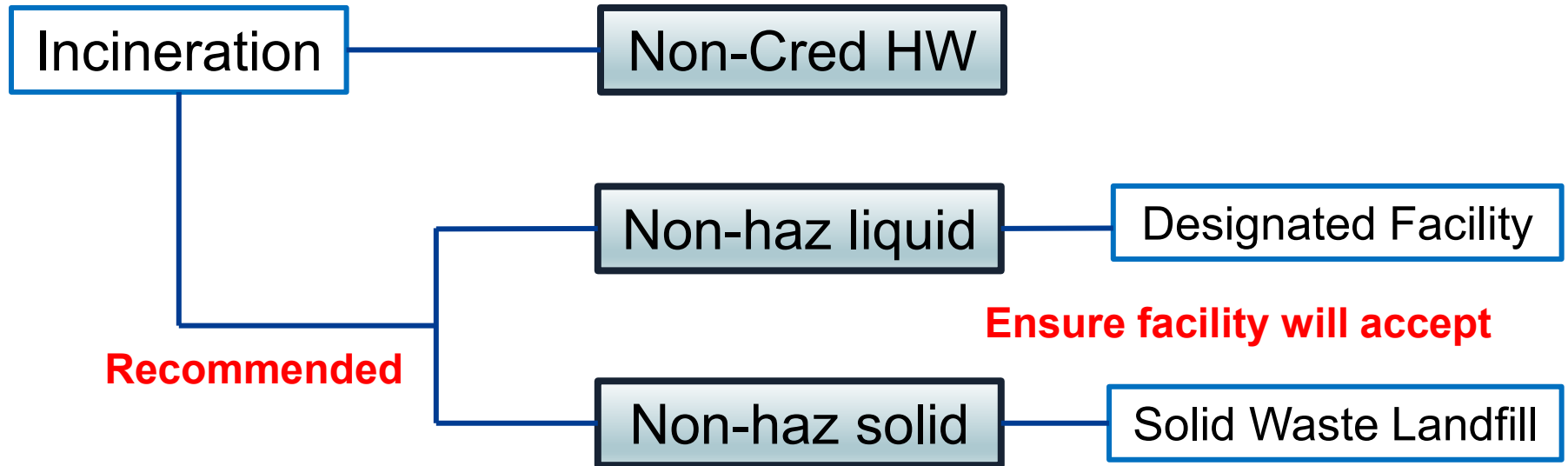
Managing Waste

Records

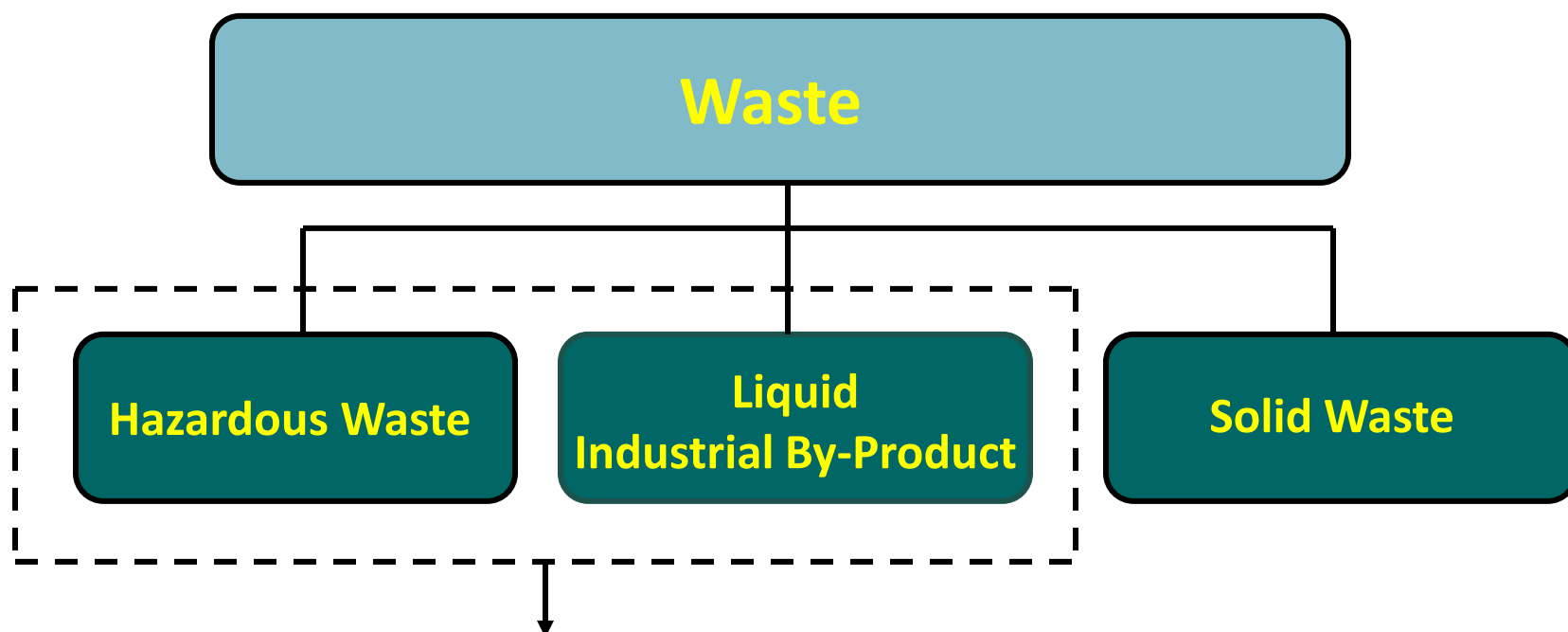
- Shipping documents
 - Confirmation of receipt
 - Documentation of credit
 - Training
 - Land disposal restriction forms
 - Waste characterization
-
- 3 years
- Until withdrawal
- 3 years

Disposal

Dispose of at a licensed hazardous waste or medical waste incinerator



Waste characterization



Non-household waste subject unless excluded:

- **Hazardous if listed or characteristic**
- **Liquid industrial by-product if free liquids**

Waste characterization

- Estimates identify between 5% to 15% pharmaceuticals are hazardous waste (HW):
 - ✓ Listed
 - Acute (P-list) - Non-acute (U-list)
 - ✓ Characteristic
 - Ignitable (D001) - Corrosive (D002)
 - Reactive (D003) - Toxic (D004-43)

Waste characterization

Characterization – Hazardous waste-like pharmaceuticals

Hazardous waste-like qualities include:

- Pharmaceuticals with more than one active ingredient listed on the P- or U-lists
- Chemotherapeutic agents
- NIOSH hazardous drugs
- Pharmaceuticals with $LD50 \leq 50$ mg/kg
- Pharmaceuticals that are carcinogenic or endocrine disrupting compounds
- Vitamin/mineral preparations containing heavy metals

Waste characterization – Michigan

Nicotine Replacement Therapies

- Over-the-counter NRTs no longer carries P075
- Prescription strength NRTs and e-cigarettes/liquids still P075

Requirement	Non-prescription NRTs	Prescription NRTs	E-cigarettes/e-liquids
P075 listed?	No	Yes	Yes
Regulated as?	Drugs by FDA	Drugs by FDA	Tobacco products
Managed as?	Non-hazardous	Hazardous waste, may be managed under HWP and ENDS Rules.	Hazardous waste, may be managed under HWP and ENDS Rules.

Waste characterization – Michigan

- Epinephrine Salts
 - No longer carry P042
 - Base form carries P042
 - Review manufacturer's insert or SDS



Waste characterization – Michigan

Mixture and derived-from rules..

- Nitroglycerin
 - Medicinal nitroglycerin does not carry P081
 - A waste listed *solely* for reactivity is **not regulated as a hazardous waste**
 - If mixed with other substances could become hazardous waste.



What's changed?

- Medical waste (Part 138)
- Non-hazardous solid waste pharmaceuticals: solid waste (Part 115)
or HWP/ENDS Rules (Part 111)
- Non-hazardous liquid waste pharmaceuticals: LIB (Part 121)
or HWP/ENDS Rules (Part 111)
- HWP: Regulated HW or HWP/ENDS Rules (Part 111)
- ENDS: Regulated HW or HWP/ENDS Rules (Part 111)
- Mixed medical with HWPs: Part 138 and Regulated HW or HWP/ENDS Rules (Part 111)

Mixed Medical Waste

Both Rules Apply!

- Maintain label
 - “Pharmaceutical & Medical Waste — Incineration Only”
 - “Hazardous Waste Pharmaceuticals” and Label with all applicable waste codes
- Protect from weather, fire, physical damage, and vandals
- Separate incompatibles
- Do not store over **90** days from date of first use of container (satellite and storage combined) (Sharps $\frac{3}{4}$ full or one year, whichever occurs first)
- Shipping requirements (manifest, comply with DOT requirements, shipping labels)
- Transport to licensed Hazardous Waste TSDF authorized to dispose of infectious, biohazardous, medical waste

Resources

EGLE Websites

- [EGLE's Non-household drug disposal](#)
- [Medical Waste Regulatory Information](#)
- [Medical Waste Disposal Services](#)
- [Pharmaceutical Waste Disposal Vendor List](#)

Guidance

- [Handling Unwanted Pharmaceuticals and their Containers in Healthcare](#) - Guidance
- [Hazardous Waste Pharmaceuticals and Electronic Nicotine Delivery Systems](#) - Guidance
- [What Healthcare Facilities and E-cigarette Retailers need to know about Michigan's new hazardous waste regulations](#) - Webinar

Resources

EGLE

- [Hazardous Waste and Liquid Industrial By-Products staff](#)
- Environmental Assistance Center at 800-662-9278 or EGLE-Assist@Michigan.gov

Questions?

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