

Overview of Michigan's Universal Waste Regulations

Reed Sneller

DEQ, OWMRP, Grand Rapids District Office

616-356-0232

snellerr@michigan.gov

Universal Waste – Why?

- Promotes recycling and proper disposal
- Eases the regulatory burden
- Reduce generator status
- Longer accumulation period, up to one year
- Less labeling
- No hazardous waste manifest required
- Hazardous waste transporter not required

Universal Waste Types

Michigan universal waste types include:

Batteries

Pesticides

Mercury containing equipment

Lamps

Pharmaceuticals

Consumer electronics

Antifreeze

} Michigan Only

Universal Waste Entities

Four Types:

- Small Quantity Handlers
- Large Quantity Handlers
- Transporters
- Destination Facilities

Universal Waste Handler Categories

Two Levels of Handlers:

1. Small Quantity Handler of Universal Waste:
 - Accumulates less than 5,000 kilograms (11,000 pounds) total
 - Notification and Site ID number not required

Universal Waste Handler Categories

Two Levels of Handlers:

2. Large Quantity Handler of Universal Waste:

- Accumulates 5,000 kilograms (11,000 pounds) or more
- Notification and Site ID number required

Basic Handler Requirements All Universal Waste Types

- Prohibited from disposing of universal waste
- Prohibited from diluting or treating universal waste except as authorized by license or rule
- Must manage universal waste to avoid releases
- Employees must be informed about proper handling and emergency procedures

Basic Handler Requirements All Universal Waste Types

- Must accumulate universal waste for one year or less
- Containers must be kept closed (except consumer electronics)
- Meet individual universal waste type labeling requirements

Basic Handler Requirements All Universal Waste Types

- Need to comply with DOT shipping requirements
- Obtain agreement from receiver of universal waste
- Comply with EPA exporter requirements
- Comply with Part 121 if liquid

Universal Waste Transporters

- Prohibited from disposing, diluting, or treating
- Handlers can transport own universal waste to another handler or a destination facility. Same for hired transporters
- If universal waste is a liquid, comply with Part 121 and Act 138

Universal Waste Transporters

- Michigan only universal waste needs to comply with the state requirements that it passes through if it goes out of Michigan
- Comply with DOT shipping requirements
- Can store universal waste up to 10 days at transfer facility

Universal Waste Destination Facilities

- A facility that treats, disposes of, or recycles a universal waste
- Must notify DEQ as a universal waste destination facility
- Keep a record of each universal waste shipment and additional requirements if a waste is rejected

Universal Waste Destination Facilities

- Specific requirements will depend on the type of universal waste received and operations being performed
- Obtain Part 111 license if required

Batteries



Batteries

- Batteries that are not characteristically hazardous can be handled as solid waste
- Spent lead acid batteries have additional options
- Managed to prevent releases
- Closed containers need to be labeled Universal Waste Batteries, Waste Batteries, or Used Batteries

Batteries

Handler can perform some activities as long as casing of battery cell is not breached, including:

- Sort by type
- Mix types together
- Discharge
- Regenerate
- Disassemble packs
- Remove electrolyte

Batteries - Lead Acid

- Lead acid batteries not managed according to Part 111, Rule 804, need to be handled as hazardous waste or universal waste
- Part 111, Rule 804 covers lead acid batteries that will be reclaimed
- Persons managing lead acid batteries to be reclaimed need to characterize any waste they generate

Batteries - Lead Acid

- Need to comply with Land Disposal Restrictions (LDR) – keep copy of exemption in file (40 CFR 268.7(a)(7)) and one time notification
- Level of regulation under Rule 804 depends on type of storage/reclaim combo and who performs reclamation

Pesticides



Pesticides

- Closed containers need to be labeled Universal Waste Pesticides or Waste Pesticides and original label if possible
- Not just containers – tank, transport vehicle or vessel
- Comply with tank regs if in a tank
- Not applicable to empty pesticide containers – may need to triple rinse

Mercury Containing Equipment



Mercury Containing Equipment

- Thermostat
- Mercury switch
- Mercury thermometer
- Device containing elemental mercury
- Label Universal Waste – Mercury Containing Equipment, Waste Mercury – Containing Equipment, or Used Mercury – Containing Equipment
- Can substitute specific names
- Closed, sound, non-leaking containers

Lamps

- Lamp is defined as the bulb or tube portion of a lighting device specifically designed to produce radiant energy.
- Includes fluorescent, high intensity discharge, sodium vapor, mercury vapor, neon, and incandescent lamps
- Lamps cannot be intentionally crushed or broken
- Closed containers labeled Universal Waste Lamps, Waste Lamps, or Used Lamps

Lamps

- Package in structurally sound container and manage to prevent breakage
- Incidental breakage ok IF in closed, non-leaking container and acceptable to universal waste destination facility
- Lamp crushing device requires AQD permit
- Lamp recyclers need to be aware of different requirements pertaining to their facility if they store or not before recycling (Rule 206(5))

Lamps - Cathode Ray Tubes (CRTs)

- There is a special exclusion and exemption in Part 111 for CRTs – Rule 231 if not handled as universal waste
- Must be destined for recycling
- Stored in building with roof, floor, and walls or placed in closed container that minimizes release of CRT glass including fines to environment

Lamps Continued - Cathode Ray Tubes (CRTs)

- Labeled Do not mix with other glass materials and either Used cathode ray tubes – contains leaded glass or Leaded glass from televisions or computers
- Not speculatively accumulated
- Export requirements

Pharmaceuticals

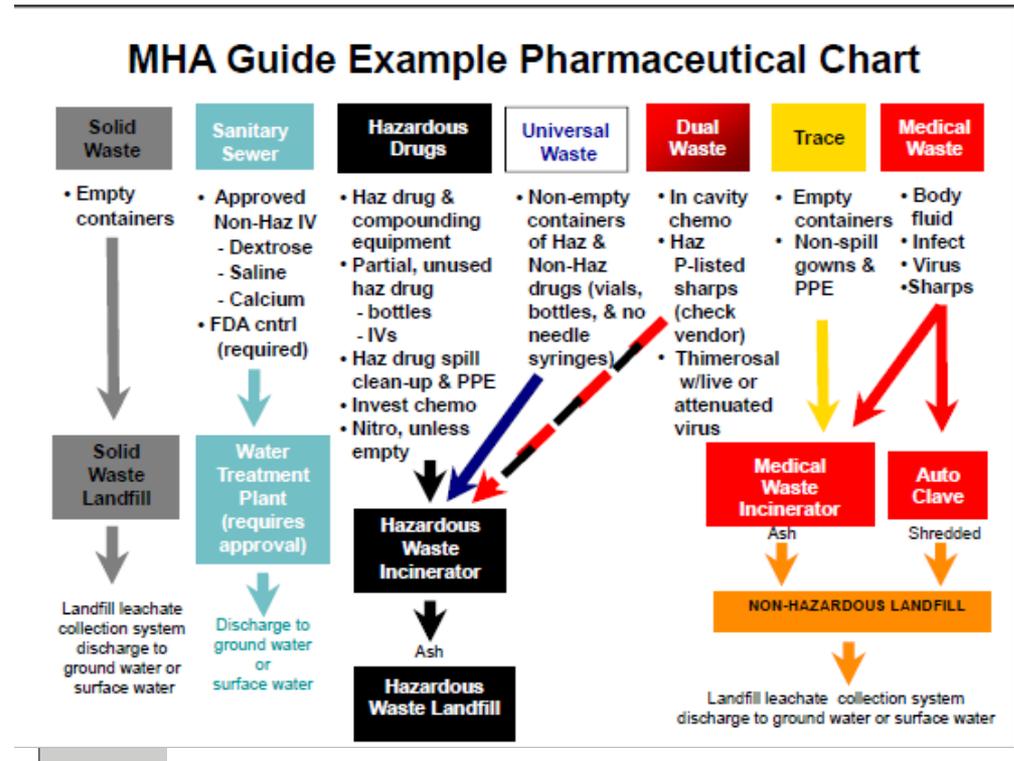
- Closed packaging
- No specific label required - recommend Universal Waste Pharmaceuticals
- Manage to prevent releases
- May disassemble packaging and sort - requires training to prevent incompatible mixing and done safety
- Liquids subject to Part 121
- Michigan may abandon pharmaceuticals as universal waste if EPA rulemaking mandates it ~ 2018

Pharmaceuticals Continued

MHA Pharmaceutical Waste Management Guide

MHA Guide Example Posting

Pharmaceutical Tutorial



www.michigan.gov/deqhealthcare under "Waste Health Care Resources"

Consumer Electronics

- Any device containing an electric circuit board, liquid crystal display, or plasma display commonly found in homes and offices
- Managed to prevent breakage
- Labeled Universal Waste Consumer Electronics or Universal Waste Electronics
- Only universal waste not required to be closed
- Handler can repair for reuse
- Handler can remove other universal waste
- Handler can remove individual modular components for reuse

Antifreeze

- Ethylene or Propylene glycol used as heat transfer or dehydration fluid
- Label containers or tanks Universal Waste Antifreeze, Waste Antifreeze, or Used Antifreeze
- Keep containers closed
- Comply with Part 121
- Immediately clean up releases

How to Find Universal Waste Recyclers and Destination Facilities

- Search WDS
- Department of Agriculture Clean Sweep Program for Pesticides
- Certified recyclers
- Google

Main Take Home Points

- Closed containers
- Labeled containers
- One year maximum accumulation
- Send to proper destination facility
- Call with questions

Questions?

- [Reed Sneller](#)
- snellerr@michigan.gov
- 616-356-0232
- DEQ Assistance Center 800-662-9278