



Michigan Household and Small Generator Collection Site Regulations

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Goals

- Identify what you can and cannot accept from:
 - Households
 - Non-households
- Identify management requirements and primary recordkeeping needed for collections accepting:
 - Household hazardous waste
 - Non-household small generator hazardous waste
- Provide regulatory background for requirements by defining primary waste concepts involved for collected wastes including:
 - Waste characterization
 - Waste types:
 - Hazardous waste
 - Liquid industrial by-product
 - Solid waste
- Clarify regulatory definition including:
 - Household waste
 - Very small generator, CESQG waste
 - Universal waste
 - Diverted waste

What is Waste Characterization?

- Process of determining the characteristics and composition of a waste stream
- Common types of waste include:
 - Hazardous waste
 - Liquid industrial by-product
 - Solid waste
- Household waste is automatically classified solid waste - no waste characterization is required
- Non-households must follow prescriptive steps to determine the type of waste – not just manufacturing, but service, municipal, for profit and not for profit entities
- Sites generating very small volumes of hazardous waste are exempt from full hazardous waste regulation but ONLY IF they meet the exemption requirements.

Common Waste Regulations

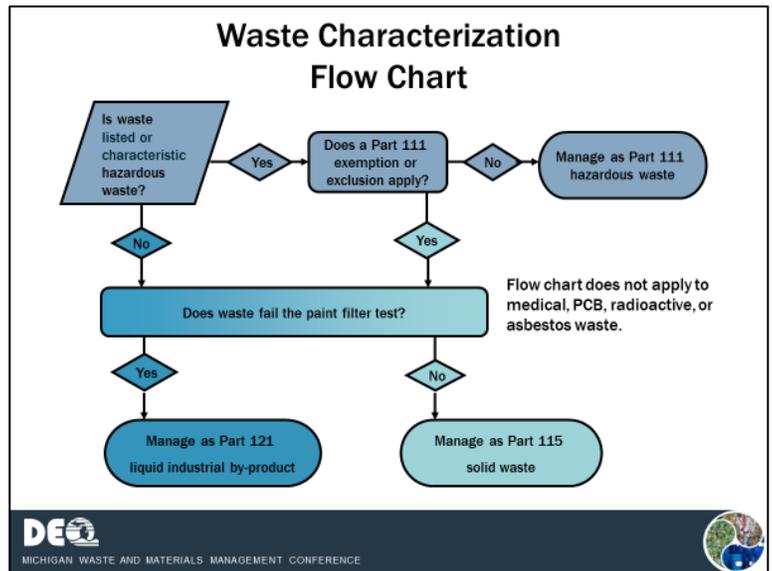
- Waste regulations governing proper characterization, accumulation, and recycling or disposal are found in Act 451, Michigan Natural Resources & Environmental Protection Act (NREPA):
 - [Part 111](#), Hazardous Waste, and the [Part 111 rules](#)
 - [Part 121](#), Liquid Industrial By-Product
 - [Part 115](#), Solid Waste, and the [Part 115 rules](#)

Waste Characterization Steps

1. Is waste listed?
 - Review lists of waste types & codes in rules
2. Is waste characteristic
 - Perform prescribed analytic test or use knowledge (MSDS, knowledge of process, materials, etc.)
 - Ignitable (flashpoint < 140 F)



- Toxic (has one or more of 40 chemicals in Table 201a of Part 111 rules at or above limit in the table, presume above or test to prove it does not)
 - Corrosive (pH < 2 or > 12.5)
 - Reactive
3. Does an exclusion or exemption apply?
 - Household hazardous waste
 - Very small quantity generator exemption (CESQG)
 4. Do other regulations apply? (liquid industrial by-product, solid waste, etc.)
 5. Create and maintain records of characterization for at least 3 years from the date waste was last shipped off-site
 6. Re-characterize if there is a change in process or materials



Common Hazardous Waste Exclusions & Exemptions

- Household hazardous waste - Part 111, Rule 204(2) and Part 121, Section 12101(n)
- Very small quantity generator or conditionally exempt small quantity generator (CESQG) - Part 111, Rule 205
- Universal waste - Part 111, Rule 228 (partial exclusion)
- Collected waste must qualify for these exclusions to be managed at a household or a very small business hazardous waste collection
- Learn more by:
 - Viewing the recorded webinars at www.michigan.gov/deq/waste, under “Announcements,” and “Hazardous Waste and Liquid Industrial By-Product Webinar Series” covering topics like:
 - Waste Characterization and Generator Status
 - What Small Businesses Need to Know About Hazardous Waste
 - Universal Waste
 - Used Oil
 - Seeing guidebook at www.michigan.gov/ehsguide, Chapter 2

What is Household Hazardous Waste?

- Household waste is what that comes from:
 - single and multiple residences
 - hotels and motels
 - bunkhouses
 - ranger stations
 - crew quarters
 - campgrounds
 - picnic grounds
 - day-use recreation areas
- Household waste must be generated AT a residence and:
 - generated as a result of daily living activities
 - composed of materials generally found in waste generated by consumers in their home
- Household waste does not include waste generated at a household from a business operation like auto repair or from an illegal activity like a meth lab.

What is Small Generator CESQG Hazardous Waste?

- Hazardous waste from a site that:
 - Generates ≤ 220 lbs. (~ 1/2 drum) non-acute hazardous waste in a calendar month;
 - Generates ≤ 2.2 lbs. acute hazardous waste in a calendar month; and
 - NEVER accumulates > 2,200 lbs. (~ 5 drums) non-acute nor > 2.2 lbs. acute hazardous waste
- Required small generator CESQG records include:

- Waste characterization records
- Generator status records
- Shipping/disposal records
- Required small generator CESQG records must be maintained on-site at the generator for at least three years from the last date of off-site shipment of each waste and be available for inspection

Waste Characterization

- Until it is known...
 - what type(s) of waste(s) a non-household site has and
 - how much hazardous waste is generated monthly....

you can't know if waste from a very small generator can be accepted at an unlicensed collection location
- Until it's known if a waste is from a household, you don't know if waste can be accepted either!
- Very small generator/CESQG liquids subject to management as a liquid industrial by-product, when commingled with similar compatible household hazardous waste, must all be managed to meet the liquid industrial by-products regulations.

Common Hazardous Waste Examples

- Non-empty aerosol cans
- Cleansers
- Solvents
- Paints
- Contaminated fuel being disposed
- Pesticides
- Fluorescent and HID electric lamps
- Batteries

Common Liquid Industrial By-products Examples

- Very small generator/CESQG liquids
- Used oil
- Contaminated fuels being recycled
- Antifreeze
- Animal and vegetable fats, oil, and grease
- Catch basin clean-out
- Sanitary sewer clean-out waste

Universal Waste

- Common hazardous waste types that can be managed under streamlined requirements for businesses
- [Federal Universal Waste](#) Types
 - Batteries
 - Pesticides
 - Mercury containing equipment
 - Lamps
- Michigan Only Universal Waste Types
 - Pharmaceuticals
 - Consumer electronics
 - Antifreeze
- Primary benefit to managing waste as universal waste is that the generator does NOT count the weight of universal waste when determining its monthly generator status
- Additional benefits include less labeling, no manifesting or shipping documents for batteries, lamps, electronics and solid pesticides, and up to 1 year accumulation period
- Universal waste mixed with household hazardous waste must all be managed as a universal waste

What is a Diverted Waste?

- Diverted waste was first established in the law in March 2014
- Part 115, Solid Waste Management, of the NREPA was amended to authorize collection of specified liquid waste, solid waste, and exempted hazardous waste
- Diverted waste operating center requirements were added under Section 11521b

- Section 11503 defines diverted waste as a waste that is...
 - generated by a household, business, or governmental entity that can be lawfully landfilled or destroyed via municipal solid waste incineration;
 - is separated from other waste;
 - is collected and sent to an environmentally preferred management option; and
 - is any of the following materials:
 - pesticides
 - liquid waste
 - light bulbs
 - batteries
 - pharmaceuticals
 - elemental mercury devices
 - electronics
 - hazardous material
 - sharps/needles
 - other DEQ approved wastes



- Household hazardous waste and small business CESQG hazardous waste can both be managed as diverted waste

Diverted Waste Environmentally Preferred Options

- Corrosive, ignitable solvent, or toxic hazardous waste – Licensed hazardous waste recycling or disposal facility
- Pesticides – Licensed hazardous waste incineration
- Fluorescent bulbs – Clean Air Act permitted bulb recycler
- Batteries – State authorized battery recycler meeting state and federal waste regulation
- Pharmaceuticals – Clean Air Act permitted incinerator authorized to destroy pharmaceuticals
- Used oil – State and federally notified used oil recycler/processor
- Sharps – State and Clean Air Act authorized medical waste treatment facility or Clean Air Act permitted medical waste incinerator

Waste Diversion Center Operating Requirements

- Diverted waste must be:
 - Collected safely and lawfully by personnel knowledgeable about safe management of the material
 - Not processed except to the extent necessary for safe and efficient transport
 - Managed to prevent release to the environment
- Diverted waste must be collected in an area where:
 - access is limited to a time when a responsible individual is on duty
 - the waste protected from weather, fire, physical damage, and vandals
 - if stored overnight, in an area that is secure and has adequate containment to prevent any release of diverted wastes
 - the general area is clean and free of litter
- The waste diversion center must
 - Document each collected waste types, volume, and disposition for at least 3 years
 - Be able to identify how all wastes accepted and stored are not stored for more than 1 year
 - Have mechanisms to ensure accepted materials are at least 90%, by volume, free of other waste materials

How Do these Regulations Mix?

- If collecting only household hazardous waste, simply collect only diverted waste and meet Section 11521b
- If collecting non-household with household, in addition to meeting Section 11521b, the site must also meet:
 - Part 121, Sections 12111, 12112, and 12113 liquid industrial-byproduct designated facility requirements
 - Part 111, Rule 205(4) CESQG collection center requirements

- Part 111, Rule 228 universal waste requirements where universal wastes are accepted

What Does This Mean?

- For sites also collecting non-household waste:
 - Manage all wastes to meet the waste diversion center requirements
 - Manage universal waste types to meet the universal waste regulations
 - Manage any universal waste liquids to meet both the liquid industrial by-products and universal waste regulations
 - Manage all other liquids to meet the liquid industrial by-product handling requirements
 - Manage all CESQG hazardous waste, not managed to meet the universal waste regulations, to meet Rule 205(4)
- The operator of a waste diversion center may reject any diverted waste
- Collection operators should:
 - Only accept materials that can be safely accumulated and diverted to an environmentally preferred management option
 - Establish acceptance and rejection procedures to ensure only materials that can be properly and safely managed are accepted
 - Ensure all staff recognize there are additional compliance requirements, training, and documentation requirements for accepting non-household waste

Liquid Industrial By-Products Designated Facility Collection Requirements

- Liquid industrial by-product, a liquid waste not subject to hazardous waste regulation must be placed in containers or tanks that are labeled or marked to identify their contents
- Liquid Industrial by-product tanks and containers must be:
 - Kept closed or covered when not in use and free of by-product or residues on the exteriors
 - Protected from weather fire physical damage and vandals
 - Managed to prevent release to the environment
- Used oil must be:
 - Labeled “Used Oil” if stored in a container or above ground storage tank
 - Have fill pipes used to transfer used oil labeled “Used Oil”
 - Only stored in containers or tanks
 - Stored in containers in good condition with no visible signs of leaks
- Designated facilities:
 - Can only accept delivery of by-product if the facility is the destination indicated on the shipping document
 - Must provide the generator or authorized representative confirmation of receipt of by-product
 - Must maintain records of characterization
- All deliveries must be documented on a shipping document certified by the generator and transporter.
- The shipping document must include:
 - Name and address of the generator
 - Name of the transporter
 - Type and volume of by-product shipped
 - Date the by-product was shipped
 - Name, address and Site ID number of the designated facility
- Transporters delivering liquid industrial by-product must:
 - Have an active, current Site ID number and
 - Be permitted and registered under Act 138 to transport liquid industrial by-product unless the by-product is self-transported by the generator
- Possess a copy of the credential in the transport vehicle showing they are authorized to transport liquid industrial by-product.
- By-product cannot be stored for longer than 1 year UNLESS:
 - It is stored for reclamation AND

- Not less than 75% of the cumulative amount, by weight or volume of each type of by-product stored is reclaimed or transferred to a different site for reclamation during that calendar year
- Documentation is required to ensure storage beyond is authorized
- Owner/operator of a designated facility shall:
 - Retain all required records for 3 years
 - Make records readily available for review and inspection
 - Electronic recordkeeping is acceptable but must be readable, have all the required information, and be accessible
 - Training
Designated Facility

Liquid Industrial By-Products Designated Facility Emergency Response & Training Requirements

- Designated facilities must have a plan to respond to and minimize hazards to human health and the environment from unplanned sudden and non-sudden releases
- Designated facilities must document that employees who manage by-product are trained in proper handling and emergency response as appropriate for their job duties

Liquid Industrial By-Products Designated Facility Reporting Requirements

- Liquid Industrial By-Product Designated Facilities are required to annually report their previous calendar year activity by April 30th using EQP 1602 Form including:
 - Name and address of the designated facility
 - Types and quantities of liquid industrial by-product accepted
 - Description of the manner in which the liquid industrial by-product was processed or managed

Universal Waste Collection Requirements

- 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
- Must accumulate universal waste for one year or less
- Employees must be informed about proper handling and emergency procedures
- Must meet individual universal waste type labeling requirements
- Containers must be:
 - Labeled “Universal Waste [insert waste type],” “Waste [insert waste type],” or “Used [insert waste type]”
 - Kept closed, except for electronic waste
 - Structurally sound & compatible with the contents
 - Managed to prevent leaks or releases to environment
- Must comply with DOT shipping requirements
- Must obtain agreement from receiver of universal waste to receive the waste, and receiver must be a universal waste destination facility
- Must comply with EPA exporter requirements
- Must meet with Part 121 liquid industrial by-product requirements if contains any free liquids

Small Business CESQG Waste Collection Requirements

- Part 111, Rule 205(4), CESQG collection center requirements:
- Mirror Small Quantity Generator accumulation requirements
- Only exception is that if the site exceeds 6,000 lbs. of accumulated non-acute hazardous waste, the site is subject to hazardous waste storage facility licensing requirement!
- Can only accumulate CESQG waste from off-site for \leq 180 days
- Per Part 111, Rule 205(4), CESQG collected materials must be:
 - managed to prevent release to air, water, sewers, or the ground
 - accumulated in closed, compatible, good condition containers or certified tanks
 - accumulated in containers and tanks labeled with receipt date, hazardous waste codes, and words “Hazardous Waste”
- accumulated in an area protected from weather, fire, physical damage, and vandals and having secondary containment adequate to collect a release from the largest container or tank

- Per Part 111, Rule 205(4), CESQG collections must:
- Notify of CESQG collection using EQP 5150 Form within 15 days after accumulating 1,000 kg of non-acute hazardous waste
- Have an emergency response plan
- Report releases, see www.michigan.gov/chemrelease
- Provide proper training and emergency response
- Inspected accumulation area weekly (containers) or daily (tanks)
- Per Part 111, Rule 205(4), CESQG collections must:
 - Have at least 1 employee on the premises or on call who is responsible for coordinating all emergency response measures who can reach the facility quickly
 - Post, next to the telephone emergency coordinator information, the location of emergency response equipment, any alarm, and local emergency response contact information
- Ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal operations and emergencies.
- Per Part 111, Rule 205(4), CESQG collection containers must:
- Be labeled with the words “Hazardous Waste”
 - Have a visible start accumulation date
 - Have hazardous waste numbers
 - Be in good condition
 - Be stored closed
- Part 121 shipping documents are required for incoming and outgoing shipment of CESQG liquids and recommended for all CESQG solids
- Generators may self-transport CESQG hazardous waste liquids without a permit/registration for transport
- CESQG liquid shipments may only be offered to (and accepted from) an Act 138 permitted and registered liquid industrial by-product permitted and registered transporter
- Collection program should institute pre-delivery waste screening for non-household waste to ensure that the wastes received are exempted from hazardous waste regulation
- Collection program must maintain records that trace the receipt, characterization, storage, and off-site management of the CESQG regulated waste to demonstrate compliance with Rule 205(4) of Part 111.
- CESQG self-certification of having viewed the DEQ webinar, CESQG guidance and with additional profiling records verifying the site meet the CESQG exemptions are recommended

Small Business CESQG Waste Collection Resources

- [Epinephrine Auto-Injector Disposal Guide](#)
- [School Laboratory Chemical Management](#)
- [School Fluorescent Lamp Drum Top Crusher Guide](#)

General Household and CESQG Hazardous Waste Collection Resources

- Resources at www.michigan.gov/degwaste, select “Hazardous Waste” tab, and “Household Hazardous Waste” link
 - [List of Household Hazardous Waste Collection Companies](#)
 - [Example CESQG/Liquid Industrial By-products Shipping Document](#)
 - CESQG/Liquid Industrial By-products Generator Certification
 - CESQG/Liquid Industrial By-products Inventory Form
 - CESQG/ Liquid Industrial By-products Medication Inventory Form
- [Michigan Guide to Environmental Health and Safety](#)
 - Resources at www.michigan.gov/degwaste, select “Announcements” tab, and “Hazardous Waste and Liquid Industrial By-products Recorded [Webinar Series](#)” to find webinars, webinar notes and additional resources covering waste characterization, universal waste, used oil, and CESQG/very small generator requirements

} Under Development

New **free** DEQ Directory for Household Hazardous Waste and Recycling Locations - [Register now](#) to help people find your collection from free.180