EGLE Webinar Series

Waste Characterization and Generator Status (4/2/20)

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Waste Characterization and Generator Status

Jenny Bennett
Hazardous Waste and Liquid Industrial By-Products Inspector
Gaylord District Office
Materials Management Division

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Welcome

Jim Ostrowski
Environmental Support Division
Moderator

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All lines are muted during the webinar.

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We are recording this webinar

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Materials Management Division

Jenny Bennett
Hazardous Waste Inspector
Gaylord District Office
bennettj@michigan.gov | 231-429-1413

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Materials Management Division

Trisha Confer
Hazardous Waste Specialist and Inspector
Saginaw Bay District Office
989-225-7968 | confert@michigan.gov

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Materials Management Division

Jeanette Noechel
Transportation Specialist and Inspector
Warren District Office
586-494-5091 | noechelj@michigan.gov

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Materials Management Division

Al Taylor
Hazardous Waste Licensing Supervisor
Lansing Central Office

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Materials Management Division

Tracy Kecskemeti
Field Office Supervisor
Warren District Office

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Environmental Support Division

Christine Grossman
Environmental Specialist
Lansing Central Office
grossmanc@michan.gov | 517-284-6860

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What Type of Waste Do I Generate?

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Goals

Characterization

- Who, When, How
- Steps
- Common Test
- Sampling Protocols

Waste Generator Category or Status

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Covid-19 Emergency

In determining whether your business is considered critical infrastructure for the purposes of the Stay Home Stay Safe order, please:

1. Review Executive Order 2020-21 and related Frequently Asked Questions at Michigan.gov/Coronavirus
2. Refer to the federal Cybersecurity and Infrastructure Security Agency (CISA) guidance, which EO 2020-21 uses for identification of critical infrastructure workers
3. Visit Guidance for Business

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Covid-19 Emergency

The order must be construed broadly to prohibit in-person work that is not necessary to sustain or protect life.

Conducting minimum basic operations may include activities required to comply with EGLE permits and environmental laws/standards

EGLE continues to monitor questions related to EO 2020-21 sent to EGLE-Reporting@mi.gov

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Covid-19 Emergency

EGLE established a process for handling enforcement discretion due to COVID-19

To access this information, go to Michigan.gov/EGLE, and find it spotlighted on the top of the page

All requests for enforcement discretion should follow the procedures provided and be submitted to EGLE-EnforcementDiscretion@mi.gov

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What is a Waste

Q: What is a Waste?

A: A waste is any discarded material.

A waste can be a solid, liquid, semisolid, or gaseous material.

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What is a Waste

Q: What is a Waste?

A: A waste is any material that cannot be used for its original intended purpose, including materials that are:

- Burned as fuel;
- Accumulated and recycled or reclaimed; or
- Discarded, abandoned or disposed.

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Do I Need to Know All of This?

Hazardous waste regulations…

- apply to all businesses, including municipalities, hospitals, & service industries, not just manufacturing industries.
- are written broadly to address hazards posed by all waste streams.

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Why Cover These Topics?

Hazardous waste regulations require each business at each site to…

- evaluate the character & composition of their wastes.
- determine the total weight of all hazardous waste generated each month.

This is necessary to determine the legal disposal options for the waste!!!

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Why Cover These Topics?

As a general rule of thumb…
…less hazardous waste = less regulation & more disposal options under the law.

There is no one best answer for how to dispose of waste for all businesses and locations.

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Why Cover These Topics?

Less Regulation

Solid Waste

Liquid Industrial By-Products Generators (LIB)

Universal Waste Generators

Soon to Be Very Small Quantity Generators (VSQG), currently Conditionally Exempt Small Quantity Generators (CESQGs)

Small Quantity Generators (SQGs)

More Regulation

Large Quantity Generators (LQGs)

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Waste Characterization

Public Act 451, Michigan Natural Resources and Environmental Protection Act:
- Part 111, Hazardous Waste Management
- Part 121, Liquid Industrial By-Products
- Part 115, Solid Waste Management
- Part 169, Scrap Tires

Public Act 368, Michigan Public Health Code:
- Part 138, Medical Waste Regulatory Act
- Part 2, Ionizing Radiation Rules

Federal Toxic Substance Control Act (TSCA)

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Waste Characterization
(Rule 302)

Where do I start?

- Perform a waste survey at each site where you generate waste – job sites and office.
- Tour the entire location and inventory all of the waste streams.
- Don't overlook identifying & characterizing *ALL* waste streams.

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Waste Survey
Drains and Discontinued Lines

Drains

* Automatically subject to waste regulations 90 days after equipment taken out of service

Discontinued lines

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Waste Survey
Office Activities

Electronics

Batteries

Electric Lamps

Elemental Mercury

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Waste Survey
Aerosol Cans

NEW 2020 rules establish aerosol cans as a universal waste type eligible for streamlined handling

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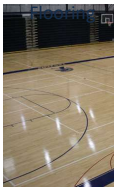
Waste Survey
Remodeling/Demolition Debris

Demolition

Gym



Abrasive Blasting

Expired Products

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Waste Survey
Fleet & Shop Equipment Maintenance

Antifreeze & Mercury Switches

Parts Washer

Used Oil

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Waste Survey
Laboratory and Art Class Waste

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Waste Survey
Rags & Textiles

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Waste Characterization

Who does it?

- Do the waste characterization yourself.
- Hire a consultant.
- Use your disposal company services.
- Use a combination of the above.

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Waste Characterization

Knowledge

- SDS
- Facility Process Information
- Technical Information
- Manufacturer Information
- Hazardous Waste Listings

Testing

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Waste Characterization

Cautionary example for use of knowledge:

Analyses of wastes from dry cleaning processes using the newer "green" solvents are testing positive for chromium.

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Waste Characterization

Waste determination must be made:

- At the point of waste generation, before any dilution, mixing, or other alteration of the waste, and
- At any time the waste has or may have changed as a result of exposure to the environment or other factors that may change the properties of the waste making the classification change.

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Waste Characterization

Basics

Listed Hazardous Waste (F, K, P & U wastes)
A common waste stream known to be hazardous without testing.

Characteristic Hazardous Waste (D wastes)
A waste stream found to be ignitable, corrosive, reactive, and/or toxic by testing.

Hazardous Waste Mixture Rule
Mixture of a listed hazardous waste with other non-hazardous wastes is a listed hazardous waste.

Hazardous Waste Derived From Rule
Residues derived from treating a listed hazardous waste is listed hazardous waste.

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Waste Characterization

Basic Steps

1. Is waste listed? Review lists of waste types & codes in rules.
2. Is waste characteristic? Analytic test or by knowledge (SDS, knowledge of process, etc.).
3. Does an exclusion or exemption apply?
4. Do other regulations apply? (liquid industrial, solid, etc.).
5. Create & maintain characterization records for at least 3 years from the date waste was last shipped off-site.
6. Re-characterize if change process or materials.

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Waste Characterization

Step 1

Listed Hazardous Waste
(Rules 302 and 213)

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Waste Characterization
What are listed hazardous wastes?

Generators use knowledge to determine if a listing applies by looking at the:

- origin of the waste
- waste composition
- process producing the waste

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Waste Characterization
What are listed hazardous wastes?

F Codes (Table 203a) – Wastes from non-specific sources (e.g. spent chlorinated solvents, metal treatment wastewaters & sludges).

K Codes (Table 204a) – Wastes from specific industries.

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Waste Characterization
What are listed hazardous wastes?

P & U Codes (Table 205a-c) – Commercial chemical products, off-specification products, container and spill residues including some Michigan only U Codes (e.g., formaldehyde, parathion, benzene, DDT, xylene).

P Codes are all acutely hazardous.

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Waste Characterization
Listed Hazardous Waste Codes

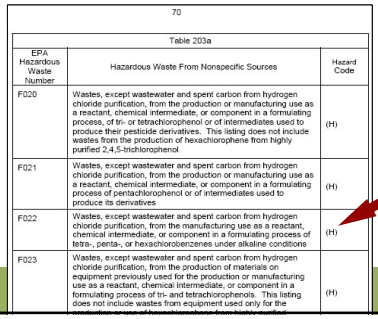

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Table 203a

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process, of tri- or tetrachlorophenol or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol or of intermediates used to produce its derivatives	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the	(H)

Acutely hazardous when "H" appears in Hazard Code Column.

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Waste Characterization

Step 2

Characteristic Hazardous Waste
(Rules 302 and 212)

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Waste Characterization
What are characteristic hazardous wastes?

When making a characteristic determination, generator may use knowledge or testing like:

- Information about chemical feedstocks and other inputs to the process.
- Knowledge of products, by-products, and intermediates produced by the process.
- Chemical or physical characteristics of wastes.

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Waste Characterization

What are characteristic hazardous wastes?

When making a characteristic determination, generator may use knowledge or testing like:

- Information on the chemical and physical properties of the chemicals used, produced by the process, or contained in the waste.
- Testing that illustrates the properties of the waste.

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Waste Characterization

What are characteristic hazardous wastes?

Characteristic Hazardous Waste & Codes:

- Ignitable - D001
- Corrosive - D002
- Reactive - D003
- Toxic - D004 – D043 (Table 201a)
- Severely Toxic – 001S - 007S (Table 202)

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Characteristic Hazardous Waste

Common Tests

Flash point – Used for testing ignitability < 140 F (D001)

Examples: paints, solvents, U.S. DOT oxidizers and ignitable compressed gasses.

pH – Used for testing corrosivity ≤ 2 or ≥ 12.5 (D002)

Examples: acids, bases.

Reactivity –Test as required for DOT classification for materials that are unstable at normal conditions, reacts violently with water, explode, and/or emit toxic gas (D003)

Examples: lithium hydride & trichlorosilane.

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Characteristic Hazardous Waste

Common Tests

TCLP (Toxicity Characteristic Leaching Procedure) - Used for testing leaching potential for Table 201a hazardous constituents (D004-D043) and determining a waste is toxic.

Examples: Paints or sludges containing metals or MEK, contaminated media.

Total Halogens – Used for testing used oils for chlorine, fluorine, bromine, etc. to determine if a "presumed" hazardous waste.

Examples: Used to process used oil into lubricants and to process used oil into specification/off-specification fuels.

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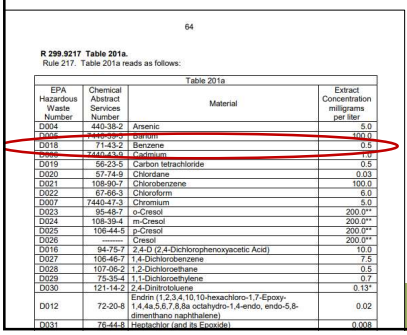
Characteristic Hazardous Waste

Common Tests



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R 299.9217 Table 201a.
Rule 217. Table 201a reads as follows:

Table 201a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Material	Extract Concentration milligrams per liter
D004	440-38-2	Arsenic	5.0
D005	7440-39-3	Barium	100.0
D018	71-43-2	Benzene	0.5
D006	7440-43-9	Cadmium	1.0
D019	56-23-5	Carbon tetrachloride	0.5
D020	57-74-9	Chlordane	0.03
D021	108-90-7	Chlorobenzene	100.0
D022	67-66-3	Chloroform	6.0
D007	7440-47-3	Chromium	5.0
D023	95-48-7	o-Cresol	200.0**
D024	108-39-4	m-Cresol	200.0**
D025	106-44-5	p-Cresol	200.0**
D026	---------	Cresol	200.0**
D016	94-75-7	2,4-D (2,4-Dichlorophenoxyacetic Acid)	10.0
D027	106-46-7	1,4-Dichlorobenzene	7.5
D028	107-06-2	1,2-Dichloroethane	0.5
D029	75-35-4	1,1-Dichloroethylene	0.7
D030	121-14-2	2,4-Dinitrotoluene	0.13*
D012	72-20-8	Endrin (1,2,3,4,10,10-hexachloro-1,7-Epoxy-1,4,4a,5,6,7,8,8a octahydro-1,4-endo, endo-5,8-dimenthano naphthalene)	0.02
D031	76-44-8	Heptachlor (and its Epoxide)	0.008

TCLP Sample Extract Concentration Limit

If sample extract meets or exceeds limits, waste is a characteristic toxic hazardous waste

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Characteristic Hazardous Waste

Severely Toxic

If a waste contains > 1.0 part per million of the dioxin and furans in Table 202, the material is a severely toxic hazardous waste.

Table 202

Michigan Hazardous Waste Number	Substance
001S	Aflatoxin
002S	2,3,7,8-Tetrachlorodibenzo-p-dioxin
003S	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
004S	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
005S	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
006S	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
007S	2,3,7,8-Tetrachloridibenzo furan

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Waste Characterization

Step 3

Exemptions and Exclusions

(Rules 202, 203, 204, 206, 207 and 228 of Part 111 - not all inclusive)

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Waste Characterization

What are exemptions & exclusions?

Wastewater discharges to municipal wastewater treatment plant authorized by that sewer authority are exempted at the point of discharge to the sewer.

Batteries, pesticides, mercury devices, electric lamps, pharmaceuticals, consumer electronics, antifreeze, and soon to be aerosol cans handled as Universal Waste enjoy a partial exemption.

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Waste Characterization

What are exemptions & exclusions?

Wastes that are used or reused in a process to make a product are excluded provided there is no reclamation - Beware of sham recycling & get EGLE concurrence on exemption. Supporting documents required!!!

Laboratory samples are exempt until being discarded.

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Waste Characterization

What are exemptions & exclusions?

Used oil that is recycled.

Petroleum contaminated media from leaking UST systems that fail the TCLP for D018 – D043 only & are being remediated under EGLE approval pursuant to Part 213.

Off-specification fuel (gasoline, kerosene, diesel, etc.) being recycled for use as fuel or burned as fuel.

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Waste Characterization

What are exemptions & exclusions?

Materials remaining in manufacturing units that would otherwise be hazardous wastes - if taken out of service the material becomes a hazardous waste (degreasers, paint pots).

Excluded wipes contaminated with solvents that are laundered and reused or disposed properly.

NEW 2017!!!!

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Solvent Contaminated Wipes

Exemption

To be excluded, must be managed in closed, labeled containers and cannot contain free liquids when sent for laundering and reuse or disposal.

Requires records and cannot accumulate wipes for longer than 180 days.

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Solvent Contaminated Wipes
Exemption

Disposable wipes sent to an intermediary, the generator would need to maintain records regarding both the intermediate facility and the ultimate disposal facility.

See Solvent Contaminated Wipes Guide.

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Waste Characterization
What are exemptions & exclusions?

Hazardous wastes from which precious metals are recovered enjoy a partial exemption.

Dredge spoils from projects permitted by the U.S. Army Corps of Engineers or EGLE.

Hazardous secondary materials.

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Waste Characterization
What are exemptions & exclusions? NEW 2017!!!!

Hazardous Secondary Materials –Exempt if meet the legitimacy criteria established in Rule 232 and recycled:

- Under generator control (Rule 204(1)(aa)).
- Transferred to a verified recycler (Rule 204(1)(bb)).
- Transferred to another person for the purpose of remanufacturing (Rule 204(1)(cc)).

See Hazardous Secondary Materials Guide.

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Waste Characterization
What are exemptions & exclusions?

Household waste, including single & multiple residences, hotels & motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, & day-use recreational areas.

Empty container residues.

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Empty Containers
Rule 207

After all non-acute hazardous waste has been removed using common practices and the amount of waste residue remaining in the container does not exceed:

- No more than 1 inch or 3.0% by weight of the total capacity of the container for containers less ≤ to 119 gallons.
- No more than 1 inch or 0.3% by weight of the total of the container for containers > than 119 gallons.

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Empty Containers
Rule 207

For acute hazardous or severely toxic hazardous waste containers to be empty, they must:

- Be triple rinsed with appropriate solvent or cleaned by proven equivalent method.
- Have inner liner that prevented contact with container removed.
- If listed due to characteristic, no longer exhibit the characteristic.
- Note: rinse water used to removed residue and any inner liner would still be a hazardous waste.

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Empty Containers
Rule 207

Compressed gas:

- Container pressure is equal to atmospheric. pressure.
- Container is not clogged.
- No audible liquids in container when shaken.

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Waste Characterization

Step 4

Do Other Waste Regulations Apply?
(Parts 121, Part 115, etc.)

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Waste Characterization
What is Liquid Industrial By-Product?

Defined under Section 12101, Part 121 of Public Act 451.

Determine using the Paint Filter Test, Method 9095 in EPA SW-846.

If there are any free liquids in the by-product or if the by-product is thinner than butter at or < 100 F, it should be managed as a liquid industrial by-product.

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Waste Characterization
What is Liquid Industrial By-Product?

Liquid wastes from locations other than "industrial" sites, like municipal, and commercial facilities including:

- Health care (hospital, pharmacy).
- Office.
- Nail salon.
- Car wash.

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Waste Characterization
What is Liquid Industrial By-Product?

Liquid hazardous wastes from a CESQG/VSQG.

Wastewaters, including most mobile power washing wastewater, carpet cleaning wastewater, food processing wastewater, and abrasive blasting wastewaters that are NOT a hazardous waste.

Most sludges from trench drains or blind sumps (unless there's been a release making it a hazardous waste).

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Waste Characterization
What is Liquid Industrial By-Product?

Some storm sewer cleanout

Most antifreeze

Landfill leachate

Brine

Most used oil being recycled

Grease trap waste

Off-specification fuels being recycled

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Waste Characterization

What are exemptions & exclusions?

- Most used oil being recycled.
- Liquids remaining in manufactured articles, until it is removed or the item is discarded (auto, light ballast).
- Liquid vegetable or animal fat transported directly to biofuel manufacturer or handled under MDARD.
- Some off-specification fuels being re-refined into fuel products.

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Waste Characterization

What are exemptions & exclusions?

- Liquids subject to medical waste regulation.
- Sanitary clean-out liquids subject to a wastewater permits.
- Biosolids subject to a residuals management plan.
- Septage.
- Empty containers.

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Empty Containers

Part 121, Section 12102a

- After all liquid industrial by-product has been removed using common practices and the amount of waste residue remaining in the container does not exceed:
  - no more than 1 inch or 3.0% by weight of the total capacity of the container for containers ≤ to 110 gallons or
  - no more than 1 inch or 0.3% by weight of the total capacity of the container for containers > than 110 gallons.

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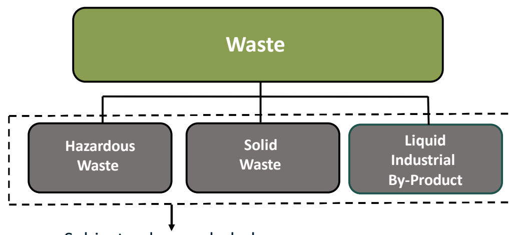

Subject unless excluded:
- ✓ Hazardous waste if listed or characteristic
- ✓ Solid waste if solid
- ✓ Liquid industrial by-product if contains liquids

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Waste Characterization

Step 5

Waste Characterization Record

(Part 111, Rule 307 and Part 121, Section 12103)

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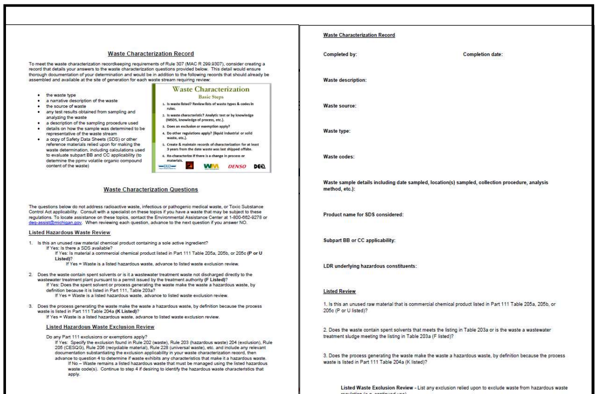

Waste Characterization Record

To meet the waste characterization recordkeeping requirements of Rule 307 (MAC R 299.9307), consider creating a record that details your answers to the waste characterization questions provided below. This detail would ensure thorough documentation of your determination and would be in addition to the following records that should already be assembled and available at the site of generation for each waste stream requiring review:

- the waste type
- a narrative description of the waste
- the source of waste
- any test results obtained from sampling and analyzing the waste
- a description of the sampling procedure used
- details on how the sample was determined to be representative of the waste stream
- a copy of Safety Data Sheets (SDS) or other reference materials relied upon for making the waste determination, including calculations used to evaluate subpart BB and CC applicability (to determine the ppmv volatile organic compound content of the waste)

Waste Characterization
Basic Steps
1. Is waste listed? Review lists of waste types & codes in rules.
2. Is waste characteristic? Analytic test or by knowledge (MSDS, knowledge of process, etc.).
3. Does an exclusion or exemption apply?
4. Do other regulations apply? (liquid industrial or solid waste, etc.).
5. Create & maintain records of characterization for at least 3 years from the date waste was last shipped offsite.
6. Re-characterize if there is a change in process or materials.

Waste Characterization Questions

The questions below do not address radioactive waste, infectious or pathogenic medical waste, or Toxic Substance Control Act applicability. Consult with a specialist on these topics if you have a waste that may be subject to these regulations. To locate assistance on these topics, contact the Environmental Assistance Center at 1-800-662-9278 or deq-assist@michigan.gov. When reviewing each question, advance to the next question if you answer NO.

Listed Hazardous Waste Review

1. Is this an unused raw material chemical product containing a sole active ingredient?
   If Yes: Is there a SDS available?
   If Yes: Is material a commercial chemical product listed in Part 111 Table 205a, 205b, or 205c **(P or U Listed)**?
   If Yes = Waste is a listed hazardous waste, advance to listed waste exclusion review.
2. Does the waste contain spent solvents or is it a wastewater treatment waste not discharged directly to the wastewater treatment plant pursuant to a permit issued by the treatment authority **(F Listed)**?
   If Yes: Does the spent solvent or process generating the waste make the waste a hazardous waste, by definition because it is listed in Part 111, Table 203a?
   If Yes = Waste is a listed hazardous waste, advance to listed waste exclusion review.
3. Does the process generating the waste make the waste a hazardous waste, by definition because the process waste is listed in Part 111 Table 204a **(K Listed)**?
   If Yes = Waste is a listed hazardous waste, advance to listed waste exclusion review.

Listed Hazardous Waste Exclusion Review

Do any Part 111 exclusions or exemptions apply?
If Yes: Specify the exclusion found in Rule 202 (waste), Rule 203 (hazardous waste) 204 (exclusion), Rule 205 (CESQG), Rule 206 (recyclable material), Rule 228 (universal waste), etc. and include any relevant documentation substantiating the exclusion applicability in your waste characterization record, then advance to question 4 to determine if waste exhibits any characteristics that make it a hazardous waste.
If No – Waste remains a listed hazardous waste that must be managed using the listed hazardous waste code(s). Continue to step 4 if desiring to identify the hazardous waste characteristics that apply.

Waste Characterization Record

Completed by: **Completion date:**

Waste description:

Waste source:

Waste type:

Waste codes:

Waste sample details including date sampled, location(s) sampled, collection procedure, analysis method, etc.):

Product name for SDS considered:

Subpart BB or CC applicability:

LDR underlying hazardous constituents:

Listed Review

1. Is this an unused raw material that is commercial chemical product listed in Part 111 Table 205a, 205b, or 205c (P or U listed)?

2. Does the waste contain spent solvents that meets the listing in Table 203a or is the waste a wastewater treatment sludge meeting the listing in Table 203a (F listed)?

3. Does the process generating the waste make the waste a hazardous waste, by definition because the process waste is listed in Part 111 Table 204a (K listed)?

Listed Waste Exclusion Review - List any exclusion relied upon to exclude waste from hazardous waste regulation (e.g. continued use).

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Waste Characterization

Step 6

Recharacterize if process or materials change!

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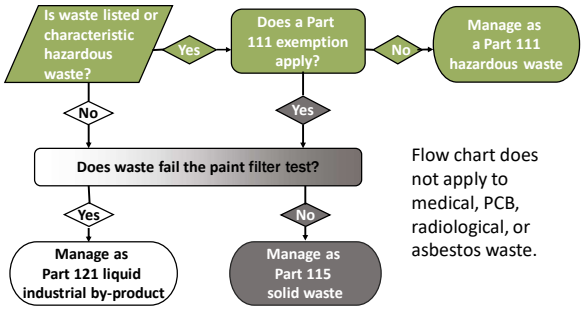
Basic Waste Characterization



Flow chart does not apply to medical, PCB, radiological, or asbestos waste.

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Generator Improvement Rules

11/16 EPA published the "General Improvement Rules" to recodify the generator rules, and provide regulatory relief, and clarification.

EGLE is currently in the final process of adopting these new rules, so the new rules are not yet effective.

The new rules must reside with the Joint Committee on Administrative Rulemaking for fifteen session days after which they can be filed with the Office of Great Seal and will take effect seven days later.

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Generator Category

NEW 2020

Less Regulation

Very Small Quantity Generator (VSQG) formerly Conditionally Exempt Small Quantity Generator (CESQG)

Small Quantity Generator (SQG)

Large Quantity Generator (LQG)

More Regulation

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Generator Category

(Rule 304)

NEW 2020

Conditionally Exempt Small Quantity Generator (CESQG), soon to be Very Small Quantity Generator (VSQG) :

- Monthly nonacute hazardous waste generation ≤ 220 lbs. or ~ 1/2 drum, acute <2.2 lbs. and clean-up waste with acute constituent 220 lbs.
- Total haz waste accumulation must always be ≤ 2200 pounds (~ 5 drums).
- Wastes are properly disposed under other regs.
- Records of waste characterization, generator status, and lawful disposal are maintained for 3 years.
- Waste accumulated on site never exceeds 6,000 kilograms.

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Generator Category

(Rule 304)

NEW 2020

Small Quantity Generator (SQG):

- Monthly hazardous waste generation > 220 lbs. to < 2,200 lbs. or ~ 1/2 to 5 drums.
- Total hazardous waste accumulation must always be ≤13,200 lbs. or ~ 30 drums.

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Generator Category
(Rule 306)

NEW 2020

Large Quantity Generator (LQG):

- Generates ≥ 2200 lbs. of non-acute hazardous waste per month AND/OR

- Generates and accumulates ≥ 2.2 pounds of acute or severely toxic hazardous waste.

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Generator Category Calculation
(Rule 303)

NEW 2020

Calculate the amount ***generated***, not the amount ***shipped***.

Calculate the amount in pounds or kilograms.

Include hazardous waste treated and/or disposed on-site unless it is hard piped to POTW.

80

Generator Category
Calculating Hazardous Waste Generated

NEW 2020

Do not include hazardous waste managed as a universal waste, like…

Electronics 

Batteries 

Pesticides 

Aerosol Cans 

Thermostats 

Lamps 

Pharmaceuticals 

Antifreeze 

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Generator Category
Calculating Hazardous Waste Generated

Do not include liquid industrial by-product and/or used oil.

Do not include waste specifically excluded from Part 111 like:

- Scrap metal being recycled.
- Contaminated fuel being recycled into fuel.
- POTW approved direct discharges.
- Excluded solvent wipes.
- Hazardous secondary materials.

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Generator Category
Calculating Hazardous Waste Generated
(Rule 303)

NEW 2020

Review total/maximum amount of hazardous waste generated and accumulated at any 1 time during the month.

Compare amount of hazardous waste generated and total accumulated during the month to the CESQG/VSQG, SQG, and LQG definitions/limits.

Generator limits in the new final rules are found in Rule 303 of the Part 111 rules.

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Generator Category

Generator Type	Maximum amount of non-acute hazardous waste generated per month	Approximate maximum volume of non-acute hazardous waste generated per month	Maximum amount of acute or severely toxic hazardous waste generated per month	Maximum amount of contaminated soil, water or other debris from clean-up of acute or severely toxic hazardous waste generated per month
Very Small Quantity Generators (VSQG)	≤ 100 kilograms or less (220 lbs.)	≤ half a 55-gallon drum or ≤ 25 gallons	≤ 1 kilogram (2.2 lbs.)	≤ 100 kilograms
Small Quantity Generators (SQG)	> 100 kilograms (220 lbs.) but < 1,000 kilograms (2,200 lbs.)	> half a 55-gallon drum and < five 55-gallon drums, or > 25 gallons and < 250 gallons	≤ 1 kilogram (2.2 lbs.)	≤ 100 kilograms
Large Quantity Generators (LQG)	≥ 1,000 kilograms or more (2,200 lbs.) or more	≥ five 55-gallon drums or ≥ 250 gallons	> 1 kilogram (2.2 lbs.)	> 100 kilograms

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EGLE Webinar Series

Waste Characterization and Generator Status (4/2/20)

Reorganization of Generator Regulations

Topic	New Rule	Old Rule
Applicability	Rule 301	Rule 301
Waste Characterization	Rule 302	Rule 302
Generator Status Calculation	Rule 303	Rule 205(5)
VSQG Accumulation	Rule 304	Rule 205(1), (2), (3)
Satellite Accumulation	Rule 305	Rule 306(2)
SQG Accumulation	Rule 306	Rule 306(4)
LQG	Rule 307	Rule 306(1)
Site ID	Rule 308	Rule 303
Manifest Requirements	Rule 309	Rule 304
Pre-transport Requirements	Rule 310	Rule 305
Recordkeeping for SQG/LQG	Rule 311	Rule 307
Reporting for SQG/LQG	Rule 312	Rule 308
LDR	Rule 313	Rule 311
Transfrontier Shipments	Rule 314	Rule 312
Academic Laboratory	Rule 315	Rule 313
Episodic Generation	Rule 316	NEW
VSQG Collections	Rule 304(e)(v)	Rule 205(4)

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Hazardous Waste Generator

Requirements

To learn more...

- See updated Waste Characterization and Contingency Planning Guidance
- See the new **draft** Very Small Quantity Generator and Generator Accumulation Requirements Guides
- Join us our upcoming webinars in the Waste Webinar Series accessible at Michigan.gov/EGLEEvents
- See Chapter 2 in EGLE Guidebook at Michigan.gov/ehsguide.
- See the Solvent Wipes, Hazardous Secondary Materials, Aerosol Can and Universal Waste guides

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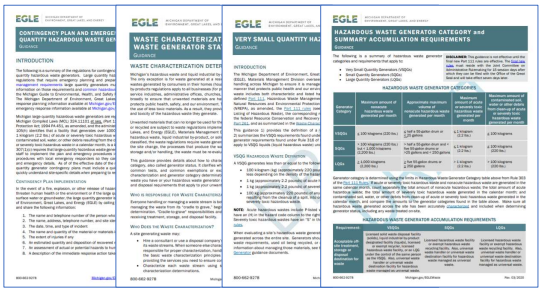
Revised/New Guidance



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Questions?

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