

Common Hazardous Waste Violations

Jill Coulter

CoulterJ5@Michigan.gov

Reeve Rogers

RogersR12@Michigan.gov

Hazardous Waste and Liquid Industrial By-product Inspectors

Today's Goals

Violations

Parts 111 and 121

Inspections

Resources

Contacts



What Inspectors Look For

Waste Characterization

- What is a waste?
- Waste survey and waste characterization steps
- Common waste characterization tests
- Recharacterized

Waste Accumulation and Handling

- Labeled
- Closed
- Protected from weather, fire, physical damage and vandals

Waste Training & Recordkeeping

Target Audience

Part 111 and 121 regulations apply to any non-household facility generating waste, including:

- Municipalities
- Healthcare providers
- Service Industries
- Churches
- Administrative Offices



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.

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

- Accumulated and recycled or reclaimed; or
- Discarded, abandoned or disposed.
- Materials sent for fuel burning

Commonly Overlooked Wastes

- o Blind sump wastes
- o Aerosol cans
- o Expired products
- o Maintenance, construction, or demolition waste
- o Electric lamps
- o Electronic equipment
- o Batteries
- o Solvent rags, wipes, and sorbents
- o Spent paint filters
- o Spent activated carbon filter media
- o Sand blasting residue

Waste Survey



What Makes a Waste “Hazardous”?

Listed Hazardous Wastes

- o F Codes- Table 203a- Nonspecific Sources
- o K Codes- Table 204a- Specific Sources
- o P and U Codes- Table 205a-c Unused Commercial Chemical Grade Products
- o S Codes- Table 202- Michigan specific identified hazardous waste

Things to Consider

Mixture Rule

- Mixture of listed hazardous waste with non-hazardous waste is a listed hazardous waste

Derived from Rule

- Residues derived from treating a listed hazardous waste is listed hazardous waste

Characteristic Wastes

- D Codes
 - D001- Ignitable
 - Flash < 140 F
 - D002- Corrosive
 - $\text{pH} \leq 2$ or ≥ 12.5
 - D003- Reactive (use US DOT designation)
 - D004-D0043- Toxic (Table 201a)



Common Exclusions

- o Universal Wastes
- o Used Oil Being Recycled
- o Excluded Contaminated Wipes
- o Household Hazardous Waste
- o Hazardous Secondary Materials



Waste Characterization Record

Records for each waste stream may include:

- o Date/person performing evaluation
- o Waste type/description and codes
- o Source of waste
- o Test results
- o Safety Data Sheets
- o Sample procedure
- o Representative sample information

PAGE 3	PAGE 2	WASTE CHARACTERIZATION RECORD	
Solid Waste Review 6. Is the material excluded from the definition of solid waste? 7. Is the material an ignitable, corrosive, reactive, or toxic solid waste? 8. Is the material a liquid, sludge, or semi-solid waste? 9. Has the material been tested for hazardous waste characteristics? 10. Is the material a hazardous waste? 11. Is the material a solid waste? 12. Is the material a liquid, sludge, or semi-solid waste?	Listed Review 1. Is this an unused container? 2. Does the process generate waste by definition? 3. Does the waste code 203a or is the waste listed in Table 204a (K list)? Listed Waste Exemption waste regulation Characteristic Review 4. Does the waste exhibit any of the following characteristics? ☐ Ignitable Characteristic Waste full hazardous waste solvent wipes, etc. Attach Liquid Industrial Byproduct 5. Does the waste pass the paint filter test? Liquid Industrial Byproduct from liquid industrial process vegetable/animal products	Completed By: Completion Date: Waste Details Waste type: Waste description: Waste source: Waste codes: Other:	Sample Details Date sampled: Location(s) sampled: Sample procedure: Analysis method: Basis for concluding the sample is representative of the waste and analysis method is valid: Accuracy and precision of the test: Other: Product name(s) for safety data sheets (SDS) considered: Subpart BB or CC applicability: Land disposal restrictions underlying hazardous constituents:

Key Take-Away

- **If Hazardous- WHY?**
Document!!! Include knowledge
AND lab results (always
representative sampling)
- **If Non-Hazardous- WHY?**
Document!!! Include knowledge
AND lab results (always
representative sampling)



Waste Characterization Guidance



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

WASTE CHARACTERIZATION AND HAZARDOUS WASTE GENERATOR STATUS

GUIDANCE

WASTE CHARACTERIZATION DETERMINATION

Michigan's hazardous waste and liquid industrial by-products regulations apply to facilities generating waste. The only exception is for waste generated at a residence that is composed primarily of materials found in wastes generated by consumers in their homes (household waste). The hazardous waste and liquid industrial by-products regulations apply to all businesses (for profit and non-profit), municipalities, healthcare providers, service industries, administrative offices, churches, etc. The environmental waste regulations were written broadly to ensure that unwanted materials are handled, recycled, and disposed safely in a manner that protects public health, safety, and our environment. They were also written to encourage reuse, recycling, and the use of less toxic materials. As a result, they provide regulatory relief to facilities that minimize the amount and toxicity of the hazardous waste they generate.

Unwanted materials that can no longer be used for their original intended purpose without first being reclaimed or recycled are subject to waste regulations implemented by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Materials Management Division. Most waste materials are classified as either a hazardous waste, liquid industrial by-product, or solid waste. When evaluating a waste to determine how it is classified, the waste regulations require waste generators to follow prescriptive steps. If the materials used at the site change, the processes that produce the waste change, or the nature of the waste changes due to storage and/or handling, the waste must be re-evaluated.

This guidance provides details about how to characterize waste and how to determine a site's generator category, also called generator status. It clarifies who does the characterization, the characterization steps, common tests, and common exemptions or exclusions from hazardous waste regulation. Accurate characterization and generator category determination is important because if you don't know what type of waste you have or your hazardous waste generator category, you cannot determine the handling, recycling, and disposal requirements that apply to your unwanted materials.

WHO IS RESPONSIBLE FOR WASTE CHARACTERIZATION?

Everyone handling or managing a waste stream is both personally and professionally responsible for properly managing the waste from its "cradle to grave," beginning with performing a representative, accurate waste determination. "Cradle-to-grave" responsibilities and liabilities apply to the generator, transporter, and the receiving treatment, storage, and disposal facility.

WHO DOES THE WASTE CHARACTERIZATION?

A site generating waste may:

- Hire a consultant or use a disposal company's waste characterization services to characterize each of its waste streams. When someone else characterizes a generator's waste, the waste generator remains responsible for proper characterization, handling, and recycling or disposal. As a result, understanding the basic waste characterization principles is key to ensuring a consultant or disposal vendor is providing the services you need to ensure compliance.
- Characterize each waste stream using site staff with technical expertise in making waste characterization determinations.

800-662-9278

Michigan.gov/EGLE

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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

WASTE CHARACTERIZATION RECORD

EXAMPLE AND GUIDANCE

To meet the waste characterization and recordkeeping requirements of the waste regulations,¹ consider creating a record that details your answers to the waste characterization questions provided in the form below. This detail will help ensure thorough documentation of your determination and provide a comprehensive resource for your site's management team. Answers to the questions provided on the form would supplement the following records that are specifically required under the rules and required to be available at the site of generation for each waste stream requiring review:

- Waste type.²
- Narrative description of the waste.²
- Source of waste.
- Chemical composition and properties of the waste and anticipated fluctuations in its chemical composition and properties.
- Test results obtained from sampling and analyzing the waste.
- Records documenting the validity and relevance of the tests, sampling, analytical or other methods used, including all of the following information:
 - a. The sampling procedure used and the reasons for determining that the sample is representative of the waste.
 - b. The accuracy and precision of any tests conducted.
 - c. The knowledge basis for the generator's determination if testing, sampling, and waste analyses were not conducted.
- Safety Data Sheets (SDS) or other reference materials relied upon for making the waste determination.
- Any calculations used to evaluate subpart BB and CC applicability (to determine the parts per million volume (ppmv) volatile organic compound content of the waste).

¹ Part 111, Rules 302 and 311; Part 121, Section 12103(1)(a) and 12103(3); and Part 115 section 11504(2) and 11518(4).

² Use the same waste type, waste description, and any other unique waste identifier on this form as you use on the land disposal restriction notification and uniform hazardous waste manifests created for this waste stream.

800-662-9278

Michigan.gov/EGLEWaste

Rev. 8/2021

Manifest Sections

Generator

International
Transporter

Destination Facility

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. Emergency Response Phone	4. Manifest Tracking Number
					000061119 FLE
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. HM	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.
		No.	Type		
1.					
2.					
3.					
4.					
14. Special Handling Instructions and Additional Information					
15. GENERATOR'S/OFFEROR'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/placarded, and are in all respects in proper condition 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/Offeror'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					
18b. Alternate Facility (or Generator)					
Manifest Reference Number: 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)

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. 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				
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. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
1.						
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information						
15. GENERATOR'S/OFFEROR'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/placarded, and are in all respects in proper condition 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/Offeror'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.:						
Transporter signature (for exports only):						
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						
18b. Alternate Facility (or Generator)		Manifest Reference Number:		U.S. EPA ID Number		
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)		Month Day Year				
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Printed/Typed Name		Signature		Month Day Year		

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DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Generator I.D.
MIK, MID, MIR, etc. followed by 9
numerical digits
e.g. MIK000000000

Actual Volumes Required;
Multiple Waste Codes
e.g. D001 Ignitability; F002
Spent Solvents; D007 Chromium

MECC

MICHIGAN ENVIRONMENTAL
COMPLIANCE CONFERENCE



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 INFORMATION:

NAME [REDACTED]
ADDRESS [REDACTED] PHONE [REDACTED]
CITY Detroit STATE MI ZIP 48238
MANIFEST TRACKING NO. [REDACTED] ACCUMULATION START DATE [REDACTED]
EPA ID NO. [REDACTED] EPA D006, D007, F006, F008, F019 WASTE NO. [REDACTED]

UN/NA NO. WITH PREFIX

UN3077

RQ Waste Environmentally Hazardous Substance, solid, n.o.s., 9, PG III

(Cadmium, Cyanide (Metal Filter cake))

D.O.T. PROPER SHIPPING NAME

HANDLE WITH CARE!

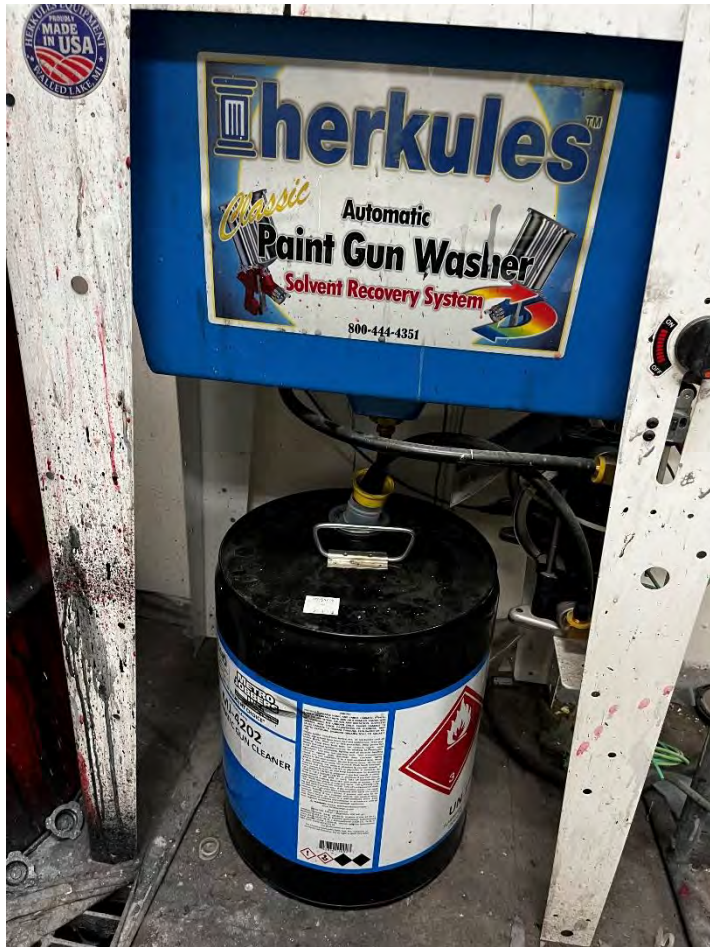
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Labeling



Satellite Accumulation





Central Accumulation







Central Accumulation?



What is “closed”?



Used Oil







The background of the slide is a photograph showing numerous large, stacked industrial containers. In the foreground and middle ground, there are several blue metal drums and larger, silver-colored metal tanks with cages. Some of the tanks appear to be filled with a yellowish liquid. The stacks are piled high, reaching towards the top of the frame. In the background, there are green trees and a clear blue sky with some light clouds. A semi-transparent grey rectangle is overlaid on the upper left portion of the image, containing the main text.

Thank You. Questions?

Jill Coulter
Reeve Rogers

CoulterJ5@Michigan.gov
RogersR12@Michigan.gov