


Hazardous Waste and Liquid
Industrial By-Products
Generator Accumulation, Labeling,
and Shipping



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Waste Webinar Series

1

Welcome




Jim Ostrowski
Environmental Support Division
Moderator

Waste Webinar Series



2




All lines are muted during the webinar.

Submit your questions using the "Question/Chat" box in your Go To Webinar tool bar.

We are recording this webinar

Waste Webinar Series



3

Materials Management Division



MaryAnn St. Antoine
Hazardous Waste Inspector
Marquette District Office
989-370-8035 or StAntoineM@Michigan.gov

Waste Webinar Series



4

Environmental Support Division



Christine Grossman
Environmental Specialist
Lansing Central Office
grossmanc@michigan.gov or 517-284-6860

Waste Webinar Series



5

Today's Goals

Identify Generator Accumulation, Labeling and Shipping Requirements for:

- Liquid Industrial By-Products
- Used Oil
- Universal Waste
- Conditionally Exempt Small Quantity Generators (aka Very Small Quantity Generators)
- Small Quantity Generators
- Large Quantity Generators

Share info on NEW Rules!!!

Waste Webinar Series



6

Today's Goals

Introduce Basic Applicability Concepts Related to

- Hazardous Waste Tanks
- Subpart CC

Define Closed Containers for

- Liquid Hazardous Waste
- Solid Hazardous Waste
- Liquid Industrial By-products

Review Generator Transport Requirements

7
Waste Webinar Series

7

Regulations

Public Act 451, Michigan Natural Resources and Environmental Protection Act:

- Part 111, Hazardous Waste Management
- Part 121, Liquid Industrial By-Products

Public Act 138, Michigan Hazardous Materials Transportation Act

U.S. Department of Transportation Act and Rules

8
Waste Webinar Series

8

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)

NEW!!!

9
Waste Webinar Series

9

Do I Need to Know All of This?

Hazardous waste regulations apply to all businesses, including municipalities, hospitals, and service industries, not just manufacturing industries and are written broadly:

- To address hazards posed by all waste streams
- To prevent releases and
- To ensure adequate response to emergency situations

10
Waste Webinar Series

10

Why Cover These Topics?

Hazardous waste and liquid industrial by-products regulations require each business to...

- Properly label all containers of hazardous and liquid industrial by-product
- Properly store all containers of hazardous waste and liquid industrial by-products to prevent the escape of any constituents into the environment

11
Waste Webinar Series

11

Why Cover These Topics?

Proper accumulation and storage will...

- Prevent release to the environment
- Prevent costly clean up expenses

12
Waste Webinar Series

12

Prevent Devastating Situations Like This!

13 Waste Webinar Series **EGLE**

13

Waste Accumulation, Labeling and Transport Requirements vary based on Type and Amount of Waste

Less Regulation ↑

Solid Waste
Liquid Industrial By-Products Generators (LIB)
Universal Waste Generators
NEW - Very Small Quantity Generators (VSQG)

↓ More Regulation

Small Quantity Generators (SQGs)
Large Quantity Generators (LQGs)

14 Waste Webinar Series **EGLE**

14

Hazardous Waste Generators

Less Regulation ↑

CESQG/VSQG
Generate < 220 lbs. non-acute monthly
~ ½ drum non-acute monthly
Never accumulate > 2,200 lbs.

SQG
Generate > 220 lbs. & < 2200 lbs. non-acute monthly
~ ½ drum to 5 drums monthly
Never accumulate > 13,200 lbs.

↓ More Regulation

LQG
Generate ≥ 2200 lbs. non-acute > 5 drums monthly,
> 2.2 lbs. acute or severely toxic, or
> 220 lbs. acute or severely toxic media and/or debris from a spill

15 Waste Webinar Series **EGLE**

15

Liquid Industrial By-Products Accumulation

Part 121, Section 12103 -
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

Part 121, Section 12113 -
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

16 Waste Webinar Series **EGLE**

16

Used Oil

Part 111, Rule 810 –
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/tanks in good condition with no leaks

17 Waste Webinar Series **EGLE**

17

Used Oil

18 Waste Webinar Series **EGLE**

18

Universal Waste Types NEW!!!

Part 111, Rule 228 – Michigan’s universal waste types include:

- Aerosol Cans – Once final rules are effective
- Batteries
- Pesticides
- Mercury containing equipment
- Lamps
- Pharmaceuticals
- Consumer electronics
- Antifreeze

} Michigan Only

19
Waste Webinar Series

19

Universal Waste

Batteries

Part 111, Rule 228(4) – Containers must be:

- Labeled “Universal Waste Batteries,” “Waste Batteries,” or “Used Batteries”
- Kept closed
- Structurally sound and compatible with the contents
- Managed to prevent leaks or releases to environment

20
Waste Webinar Series

20

Universal Waste

Pesticides

Part 111, Rule 228(4) – Containers must be:

- Labeled “Universal Waste Pesticides” or “Waste Pesticides”
- Kept closed
- Structurally sound and compatible with the contents, and free of evidence of leakage, spillage or damage
- Managed to prevent leaks or releases to environment
- Meet all tank requirements

21
Waste Webinar Series

21

Universal Waste

Mercury Containing Equipment

Part 111, Rule 228(4) – Containers must be:

- Labeled “Universal Waste Mercury Thermometers,” “Waste Mercury Thermometers,” or “Used Mercury Thermometers,” (substitute device or name, if it is not a thermometer)
- Structurally sound, compatible with device with no evidence of leakage or spillage
- Designed to prevent the escape of mercury

22
Waste Webinar Series

22

Universal Waste

Electric Lamps

Part 111, Rule 228 (4) – Containers must be:

- Labeled “Universal Waste Lamps” OR “Waste Lamps” OR “Used Lamps”
- Structurally sound and compatible with lamps
- Able to prevent breakage
- Kept closed

23
Waste Webinar Series

23

Universal Waste

Consumer Electronics

Part 111, Rule 228(4) – Packaging must be:

- Labeled “Universal Waste Consumer Electronics” or “Universal Waste Electronics”
- Managed to prevent breakage during normal handling conditions

24
Waste Webinar Series


24

Universal Waste

Antifreeze

Part 111, Rule 228(4) – Containers must be:

- Labeled “Universal Waste Antifreeze,” “Waste Antifreeze” or “Used Antifreeze”
- Kept closed
- Structurally sound & compatible with the contents
- Managed to prevent leaks or releases to environment



25

Waste Webinar Series

EGLE

25

Universal Waste

Pharmaceuticals

Part 111, Rule 228 (4) – Must be managed to prevent release of any universal waste and packaging must be:

- Structurally sound and compatible with contents
- Able to prevent breakage
- Kept closed

As of 8/21/19 healthcare is prohibited from drain disposing of any hazardous waste pharmaceuticals under 40 CFR 266, Subpart P, regardless of generator category

26

Waste Webinar Series

EGLE

26

Universal Waste

Aerosol Cans

NEW!!!

Rule 228(2)(e)

- Non-empty aerosol cans that contain pesticides may be managed as universal waste aerosol cans

Rule 228(4)(c)

- HHW and VSQG aerosols when mixed with other universal waste are subject to the universal waste regulations

27

Waste Webinar Series

EGLE

27

Universal Waste

Aerosol Cans

NEW!!!

Part 111, Rule 228(4) - Handler must:

- Label can or container “Universal Waste—Aerosol Cans,” “Waste Aerosol Cans,” or “Used Aerosol Cans”.
- Manage universal in a way that prevents releases
- Accumulate aerosol cans in a structurally sound container compatible with the aerosol can contents and lacking evidence of leakage, spillage, or damage that could cause leakage

28

Waste Webinar Series

EGLE

28

Universal Waste

Aerosol Cans

NEW!!!

Handler must:

- Accumulate aerosol cans in an area protected from heat sources
- Package aerosol cans showing leakage in a separate closed container or overpacked with absorbents, or immediately puncture and drain in accordance with the rule.

29

Waste Webinar Series

EGLE

29

Universal Waste

Aerosol Cans

NEW!!!

Handler may:

- Sort aerosol cans by type if the aerosol cans are intact
- Mix intact cans in 1 container
- Remove actuators to reduce risk of release
- Puncture and drain **empty** aerosol cans, if the cans are recycled and residual liquids are properly characterized and managed

30

Waste Webinar Series

EGLE

30

Universal Waste NEW!!!

Aerosol Cans

If processing **empty** aerosol cans,

- Use device designed to safely puncture aerosol cans and contain both liquid and air emissions
- Maintain a copy of the manufacturer's specification and instruction on site
- Ensure employees operating the device are trained in the proper procedures.

31
Waste Webinar Series

31

Universal Waste NEW!!!

Aerosol Cans


If processing **empty** aerosol cans, handler must establish and follow written procedures covering:

- Safe processing
- Proper assembly, operation, and maintenance of processing equipment
- Segregation of incompatible wastes
- Practices to prevent fires or releases, and how to respond to a release

32
Waste Webinar Series

32

Very Small Quantity Generators



33
Waste Webinar Series

33

Very Small Quantity Generators NEW!!!

Part 111, **Rule 304(1)(f)** –

- Accumulation area must be protected from weather, fire, physical damage, and vandals

Part 111, **Rule 304(1)(g)** –

- Waste must be accumulated so that constituents cannot escape by gravity into soil (directly or indirectly), into surface water or ground water, into drains or sewers, or to the air in violation of Part 55

34
Waste Webinar Series

34

Small Quantity Generators



35
Waste Webinar Series

35

Small Quantity Generators NEW!!!

Part 111, **NEW Rule 306** – Containers must:

- Be labeled "Hazardous Waste" and with something indicating the hazards associated with the waste
- Have accumulation date
- Have hazardous waste numbers
- Be in good condition
- Be stored closed
- Be handled and stored to prevent leaks
- Be accumulated in an area protected from weather, fire, physical damage, and vandals

36
Waste Webinar Series

36

Small Quantity Generators

Part 111, **NEW Rule 306** – Containers must:


- Be inspected weekly
- Be compatible with the waste
- Not contain incompatible wastes
- Be separated from each other if incompatibles
- Be washed if they previously held incompatibles
- Have secondary containment if > 1000 kg (2,200 lbs.) or ~ 5 drums
- Have emergency plans and training coordinated with LEPC

EGLE


37

Hazard Indicator Examples NEW!!!


US DOT



OSHA



NFPA



EGLE

38

Marking and Labeling NEW!!!

- Labeling is required at the point of generation
- Generators can mark the outer/secondary container or attach a tag with the required information on containers with small containers inside (e.g., tubes, vials, etc.),
- Existing marking and labeling is sufficient for containers that already have appropriate marking and labeling (e.g., a commercial chemical product (CCP) in its original container with an intact label), provided it indicates the hazards of the chemical when the generator adds the words "Hazardous Waste"

EGLE

39

Satellite Containers NEW!!!

Same for SQGs and LQGs

Part 111, **NEW Rule 305** –

Must be accumulated at or near the point of generation and containers must:

- Be < 55 gallons of hazardous waste (all types/all containers combined)
- Be < 1 quart of acutely or severely toxic waste
- Be under the control of the operator
- Be labeled "Hazardous Waste"
- Be labeled with either the hazardous waste number(s) or chemical name **and with something indicating the hazards associated with the waste**

EGLE

40

Satellite Containers

Same for SQGs and LQGs

Part 111, **NEW Rule 305** – Containers must be:

- In good condition
- Compatible with the waste in them
- Closed when not in use
- Marked with date and moved to storage area within 3 days of exceeding 55 gallons non-acute or 1 quart severely/acutely toxic
- Managed to prevent leaks

EGLE

41

Comparing Labeling Requirements NEW!!!

CESQG/VSQG Liquid Containers – CESQGs/VSQGs do not have marking requirements under the hazardous waste regulations but they must be marked to identify their contents under the liquid industrial by-product regulations

SQG/LQG Accumulation Containers – SQGs/LQGs have to mark accumulation containers with the words "Hazardous Waste", the waste code(s) for the waste, the accumulation start date, **AND a hazard indicator** (OSHA, U.S. DOT or characteristic)

SQG/LQG Satellite Containers - SQGs/LQGs have to mark satellite containers with the words "Hazardous Waste", the waste(s) code **OR** the chemical name(s) **AND a hazard indicator**

EGLE

42

Satellite Containers

43 Waste Webinar Series EGLE

43

Large Quantity Generators

44 Waste Webinar Series EGLE

44

Large Quantity Generators

Part 111, **NEW Rule 307** – Containers must: **NEW!!!**

- Be labeled "Hazardous Waste" and with something indicating the hazards associated with the waste
- Have accumulation date
- Have hazardous waste number(s)
- Be in good condition
- Be stored closed
- Be handled & stored to prevent leaks
- Be accumulated in an area protected from weather, fire, physical damage, and vandals

45 Waste Webinar Series EGLE

45

Large Quantity Generators

Part 111, **NEW Rule 307** – Containers must:

- Be inspected weekly with inspections documented and records kept on-site 3 years
- Be compatible with the waste
- Not contain incompatible wastes
- Be separated from each other if holding incompatibles
- Be washed if previously holding incompatibles
- Have secondary containment

46 Waste Webinar Series EGLE

46

Large Quantity Generators

Part 111, **NEW Rule 307** – Containers must:

- Have emergency plans and training coordinated with LEPC and documented
- Be stored 50 feet from property line if ignitable and/or reactive (written FD approval if < 50 ft)

47 Waste Webinar Series EGLE

47

Generator Accumulation/Storage Time Frames

SQG's

- Generate > 220 lbs. & < 2200 lbs. non-acute monthly
- Accumulate not more than 13,200 lbs.
- **Store 180 days or less**

LQG's

- Generate > 2200 lbs. non-acute or > 2.2 lbs. acute or severely toxic monthly, or > 220 lbs. acute or severely toxic media and/or debris from a spill
- **Store 90 days or less**

48 Waste Webinar Series EGLE

48

Secondary Containment

Same for SQGs and LQGs

For Small Quantity Generator –

- Part 111, **NEW Rule 306(1)(d)(i)** refers to 40 CFR 264.175

For Large Quantity Generator –

- Part 111, **NEW Rule 307(1)(b)(i)** refers to 40 CFR 264.175

49 Waste Webinar Series **EGL**

49

Secondary Containment

Same for SQGs and LQGs

40 CFR 264.175 –

Secondary Containment must:

- Have an impervious base free of cracks
- Be sloped or otherwise designed to elevate/protect containers from liquids
- Hold 10% of total container volume or 100% of the volume of the largest container, whichever is greater
- Prevent run on - unless of sufficient capacity
- Have accumulated liquids removed to prevent over-flow


50 Waste Webinar Series **EGL**

50


Secondary Containment

Same for SQGs and LQGs

Solid



Liquid



51 Waste Webinar Series **EGL**

51

Episodic Generation Events

NEW!!!

New Rule 316 provides additional management requirements for episodic waste

Allows VSQG and SQG to maintain their existing generator category during episodic event if they follow alternate requirements

Requires notification

- Planned - 30 or more days prior with Site ID form
- Unplanned - Within 72 hours by phone/email, followed by a Site ID form

Fee for higher status is not waived

52 Waste Webinar Series **EGL**

52

Episodic Events Requirements

VSQG and SQG episodic hazardous waste must: **NEW!!!**

- Be managed to meet the SQG accumulation provisions in Rule 306
- Be transported by a hazardous waste transporter using a manifest to a licensed hazardous waste TSDF
- Be shipped within 60 calendar days of the episodic event
- Be labeled "Episodic Hazardous Waste," with the hazard indicators, and the date the event started

VSQG episodic hazardous waste is not subject to LDRs, but SQG episodic waste is

53 Waste Webinar Series **EGL**

53

VSQG Consolidation

NEW!!!

When a LQG and VSQG(s) are under the control of the same person, the LQG can consolidate their VSQG's waste and send it for hazardous waste disposal

- Person means an individual, trust, firm, joint stock company, federal agency, corporation, including a government corporation, partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body
- Control means the power to direct policies at the facility

54 Waste Webinar Series **EGL**

54

VSQG Consolidation NEW!!!

VSQGs must:

- Characterize waste streams and keep records of the determinations for at least 3 years
- Maintain information to verify the VSQG monthly generator category determination for at least 3 years
- Mark each container of hazardous waste with the words "Hazardous Waste"
- Mark each container of hazardous waste with a description of the waste and an indication of the hazards of the contents

55 Waste Webinar Series **EGL**E

55

VSQG Consolidation NEW!!!

VSQGs must:

- Accumulate VSQG hazardous waste liquids in an area protected from weather, fire, physical damage, and vandals and prevents hazardous waste from escaping by gravity into the soils, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions do not violate the air pollution control regulations.
- Ensure no hazardous wastes with free liquids are landfilled
- Use a shipping document and liquid industrial by-products transporter is for VSQG liquids

56 Waste Webinar Series **EGL**E

56

VSQG Consolidation NEW!!!

LQGs must:

- Notify EGL E of the VSQG consolidation activities at least 30 days prior to receiving the first shipment using the Site ID Form
- Label VSQG containers with the date accumulation starts, which is the date the hazardous waste was received from the VSQG.
- If the LQG consolidates hazardous waste from a VSQG with its own hazardous waste or with hazardous waste from other VSQGs, the LQG must label each container or tank with the earliest date any hazardous waste was placed in the container at the LQG location
- Maintain adequate aisle space at all times for emergency personnel to access hazardous waste

57 Waste Webinar Series **EGL**E

57

VSQG Consolidation NEW!!!

LQGs must:

- Maintain records that provide the following details for each VSQG shipment for at least three years:
 - VSQG name and site address
 - VSQG contact, phone number and e-mail
 - Description of the hazardous waste received
 - The quantity and the date the hazardous waste was received
- Manage consolidated waste as fully regulated LQG hazardous waste

58 Waste Webinar Series **EGL**E

58

VSQG Consolidation NEW!!!

LQGs must:

- Send the VSQG waste for treatment/disposal at a licensed TSDF within **90 days** of the accumulation date
- Use a hazardous waste permitted and registered transporter
- Document shipment for recycling/disposal on a Uniform Manifest
- Reports VSQG consolidation activities in Biennial Reporting using a G51 source code to distinguish from the LQG's own waste

59 Waste Webinar Series **EGL**E

59

Academic Laboratories

Part 111, Rule 313 & 40 CFR 262.200 –

- Applies to colleges, universities, or college - university affiliated teaching hospitals and non-profit research institutes
- Allows academic entities to decide when & where on-site hazardous waste determinations are made
- Requires hazardous waste determinations to be made by trained professionals (not students)
- Requires development of a lab management plan
- Requires hazardous waste to be removed every six months
- Unused hazardous wastes generated during once/year lab clean-out are not counted towards generator status



60 Waste Webinar Series **EGL**E

60

Academic Laboratories

Comparison of Subpart K, Academic Lab Rule vs. Satellite Accumulation available on-line at:
www.epa.gov/wastes/hazard/generation/labwaste/saa-vs-alr.pdf


Subpart K	Satellite Accumulation	Academic Lab Rule
Quantity	55 gallons	55 gallons
Location	On-site	On-site
Labeling	Not required	Required
Secondary Containment	Not required	Required
Inspection	Not required	Required
Recordkeeping	Not required	Required
Management	Not required	Required
Prohibited	Not required	Prohibited
Exemptions	Not required	Exemptions
Other	Not required	Other

61
Waste Webinar Series
EGLE

61

Tanks



62
Waste Webinar Series
EGLE

62

Tanks

SQG & LQG

Part 111, **NEW Rules 306 and 307** & 40 CFR 265 Subparts J – Tanks must:

- Be labeled “Hazardous Waste”
- Be marked with accumulation date
- Not contain wastes which could cause rupture, leaks, corrosion or other failures
- Be managed to prevent reactions that would threaten human health and the environment
- Be decontaminated (washed) if they previously held incompatible waste before adding waste

63
Waste Webinar Series
EGLE

63

Tanks

Part 111, **NEW Rules 306 and 307**

Additional Requirements:

- Ignitable and reactive wastes (40 CFR 265.198)
- Controls and practices to prevent spills & overflows (40 CFR 265.194)
- Secondary containment (40 CFR 265.193)
- Inspection requirements and records
- Tank certification (40 CFR 265.192)

64
Waste Webinar Series
EGLE

64

Tanks

Certification

Part 111, **NEW Rules 306 and 307** & 40 CFR 265.192 –

Must obtain a written assessment that is reviewed and certified by a qualified professional engineer that includes:

- Design standards
- Hazard characteristics of the waste
- Determination performed by corrosion expert if the external shell of a metal tank is in contact with soil or water
- Design considerations if tank affected by vehicles

65
Waste Webinar Series
EGLE

65

Subpart CC Rules

What Are They?

EPA rules for controlling certain air emissions from hazardous waste storage containers, tanks and piping

Part 111, **NEW Rule 307(1)(b)** and Rule 634 adopts by reference 40 CFR Part 264, Subpart CC

Certain LQGs and treatment, storage, and disposal facilities (TSDFs) are subject to 1 of 3 different sets of requirements for containers/tanks

66
Waste Webinar Series
EGLE

66

Subpart CC Rules

What Are They?

Container/tank requirements depend on:

- The size of container
- The organic content of the waste placed in the container
- Whether or not waste stabilization occurs in container

67

Waste Webinar Series

EGLE

67

Subpart CC Rules

TSDFs as well as certain LQGs must comply with Subpart CC if they:

- Generate a hazardous waste which has an average volatile organic (VO) concentration > 500 parts per million by weight (ppmw) at the point of waste origination and
- It is stored in containers larger than ~ 26 gallons.

SQGs are exempt from Subpart CC

68

Waste Webinar Series

EGLE

68

Subpart CC Rules

Records

If hazardous waste < 500 ppmw, records to be kept include:

- Test Results
- Date, time, and location of sampling for EACH hazardous waste
- Measurements
- Calculations

Records documenting the rationale for the exemption must be reviewed and updated, when necessary, and at least once every twelve months and available on site

69

Waste Webinar Series

EGLE

69

Closed Container

What Is It?

Regulations do not define "closed container"

Requiring containers to be closed is a means to minimize emissions of volatile wastes, to protect ignitable or reactive wastes from sources of ignition or reaction, to prevent spills, to reduce the potential for mixing of incompatible wastes and reduce direct contact of personnel with waste

70

Waste Webinar Series

EGLE

70

Closed Container

Liquid Hazardous Waste

For containers in satellite accumulation:

- Lids properly affixed to prevent spills
- Funnels with manual or spring-loaded lids or tightly screwed into bung hole with a one-way valve

71

Waste Webinar Series

EGLE

71

Closed Container

Liquid Hazardous Waste

For containers in accumulation/storage:

- Cover secured with snap rings bolted
- Bung holes capped
- If needed, pressure-vacuum relief valve to avoid explosions

72

Waste Webinar Series

EGLE

72

Closed Container

Solid Hazardous Waste

Container is closed if there is complete contact between the lid and the rim all around the top of the container.


If continuously receiving wastes, containers should be capable of catching and retaining all of the material.

73 Waste Webinar Series **EGLE**


73

Closed Containers

Solids



Liquids



74 Waste Webinar Series **EGLE**

74

Closed Container

Liquid Industrial By-Products

Same as liquid hazardous waste except:

- Non-pressurized mobile oil drain pans, at a minimum, must be emptied when not in use or generally at the end of the day to be considered closed
- Those not emptied when not in use must be equipped with closure device to prevent spills in the event the container is knocked over




75 Waste Webinar Series **EGLE**

75

Closure Devices






76 Waste Webinar Series **EGLE**

76





Not Closed

77 Waste Webinar Series **EGLE**

77

Pre-transport Labeling

NEW!!!

Rule 310 Pre-transport requirements

Before transporting hazardous waste or offering hazardous waste for transport, small quantity and large quantity generators shall:

- (d) Mark each container of 119 gallons or less with the following words and information :
- (v) The hazardous waste number identifying the waste.

(e) A generator may use a nationally recognized electronic system, such as bar coding, to identify the hazardous waste number, as required by subdivision (d)(v) or subdivision (f) of this subrule.

78 Waste Webinar Series **EGLE**

78

Transport - Manifests & Shipping Documents

Track waste from "cradle to grave" or from the time it is created, while it is transported, to...

Hazardous Waste Generation

Hazardous Waste Transportation

79 Waste Webinar Series **EGLE**

79

Transport - Manifests & Shipping Documents

... where it is treated, stored, and until it is ultimately disposed.

Hazardous Waste Transportation

Recycling

Treatment

Disposal

80 Waste Webinar Series **EGLE**

80

Manifests & Shipping Documents

As of a March 2016 law change, uniform manifests are no longer required for documenting shipment of **liquid industrial by-products**

Shipping document is required for shipping liquid industrial by-products and can be written or electronic

81 Waste Webinar Series **EGLE**

81

Shipping Document

Can be a log, invoice, bill of lading, or uniform hazardous waste manifest

Required information:

- 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

82 Waste Webinar Series **EGLE**

82

Shipping Document

Generator or generator representative signs/certifies shipping document - keeps record for inspection

Transporter signs/certifies shipping document - keeps record during transport and for inspection

Transporter delivers only to the designated facility identified on the shipping document

83 Waste Webinar Series **EGLE**

83

Shipping Document

Designated facility provides confirmation of receipt to the generator

If confirmation from designated facility is not received timely, generator must contact designated facility, and if receipt is not verified, report to the EGLE

84 Waste Webinar Series **EGLE**


84

e-Manifests

Uniform manifests are required for shipping hazardous waste from a SQGs and LQGs

In April 2017, new rules became effective in Michigan requiring use of e-Manifest system

Now all hazardous waste manifest must be loaded to the e-manifest system by the receiving facility who receives a fee to cover the cost of processing


85
Waste Webinar Series


85

e-Manifests Options

Four options for e-manifest submittal:

- Paper manifest (via Mail) - \$20
- Scanned, adobe (pdf) image of each paper manifest - \$13
- Data file of all manifests - \$7
- e-Manifest, originated in the e-manifest system, signed electronically by the generator, transporter and receiving TSD (paperless manifest) - \$4

86
Waste Webinar Series



86

Hybrid e-Manifest

The hybrid e-Manifest is populated by an agent for the generator

The generator:


- Is provided with a paper copy of the e-Manifest
- Signs the paper copy by hand
- Files and retains the paper copy after it's signed by the transporter

87
Waste Webinar Series



87

E-Manifest Tracking

After registering for e-manifest use, the generator can track waste movement from the transporter to the receiving facility in the e-Manifest system.



Only if a paper manifest is used will the TSD be **required** to send the generator a signed copy of the manifest by mail.

88
Waste Webinar Series



88

E-Manifest Tracking

Generators not registered in the e-manifest system using the hybrid manifest must make arrangements with the receiving facility to return a hand signed paper copy of the manifest

Generators must track shipments and verify delivery at the disposal facility (SQG verify within 60 days and LQG verify within 45 days)

Generators unable to verify receipt of shipments must submit an exception report to EGLE

89
Waste Webinar Series


89

Permitted & Registered Transporter

Transporters must be permitted and registered by EGLE under Act 138

Generators can only offer shipments of liquid industrial by-products to permitted/registered transporters



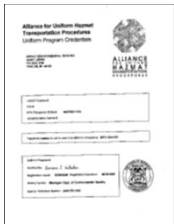
90
Waste Webinar Series


90

Permitted & Registered Transporter

Credential must be carried in power unit at all times

Separate authorizations are issued for transport of hazardous waste and liquid industrial by-products




The image shows a Michigan Hazardous Waste Transporter Credential. It includes the Michigan Department of Environment, Great Lakes, and Energy logo, the text 'Alliance for Uniform Hazardous Waste Transporter Procedures', and a section for 'Transporter Information' with fields for Name, License Number, and Expiration Date. There is also a section for 'Hazardous Waste' with fields for Material Name, Quantity, and Manifest Number.

91

Waste Webinar Series

EGLE

Questions?



The image shows a white dog with brown patches, possibly a pit bull mix, wearing a black hat and a black collar. The dog is sitting on a grassy area with a house and trees in the background.

92

Waste Webinar Series

EGLE

Follow us at: Michigan.gov/EGLEConnect

Michigan Department of
Environment, Great Lakes, and Energy
800-662-9278
Michigan.gov/EGLE

MaryAnn St. Antoine
Hazardous Waste Program
(989) 370-8035
StAntoineM@Michigan.gov



The image shows a suspension bridge over a body of water. The bridge has two tall towers and cables. The water is dark blue and there are white waves in the foreground.

93

Waste Webinar Series

EGLE