



Hazardous Waste and Liquid Industrial By-Products Inspections and Recordkeeping

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Covid-19 Emergency

- On March, 23, 2020, Governor Whitmer issued her [Stay Home, Stay Safe, Executive Order \(EO\) 2020-21](#) which was extended by [EO 2020-42](#), and again by [EO 2020-59](#) which took effect April 24, 2020
- According to EO 2020-59, no person or entity shall operate a business or conduct operations that require workers to leave their homes or places of residence except to the extent that those workers are necessary to sustain or protect life, to conduct minimum basic operations, or to perform a resumed activity specifically authorized under [EO 2020-59](#)
- Government, businesses and operations are to designate workers who are authorized to work under EO 2020-59
- Government, businesses and operations must also adopt social distancing practices, provide personal protective equipment specified under EO 2020-59 for employees and use other mitigation measures to protect workers and patrons in the performance of that in-person work.
- Executive Order 2020-59 designates workers who are necessary to sustain or protect life and adopts the [March 19, 2020, U.S. Cybersecurity and Infrastructure Security Agency guidance](#) for determining critical infrastructure workers
- In determining whether a business or operation is considered critical infrastructure or otherwise authorized to work under the [EO 2020-59](#), businesses and operations are to:
 - Review [EO 2020-59](#) available at Michigan.gov/Coronavirus
 - Refer to the [March 19, 2020, Cybersecurity and Infrastructure Security Agency guidance](#),
- The executive order broadly prohibits in-person work unless specifically authorized in EO 2020-59, necessary to sustain or protect life, or necessary to conduct minimum basic operations
- Conducting minimum basic operations may include activities required to comply with EGLE permits and environmental laws/standards
- EGLE monitors questions related to EO-2020-59 sent to EGLE-Reporting@mi.gov
- EGLE established a process for handling enforcement discretion due to COVID-19
- To access information on that process, go to Michigan.gov/EGLE, where it is 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
- Procedure requires that the following information be submitted to EGLE:
 - The specific regulatory requirement in question, including identification of any permit, order, or agreement that applies to the entity's obligations
 - A concise statement describing the circumstances preventing compliance and how the compliance issue is impacted by the COVID-19 response - regulatory flexibility is only for COVID-19 prompted non-compliance
 - The steps taken to avoid the compliance issue, including whether you contacted EGLE for assistance and why the compliance issue was not reasonably avoidable
 - The anticipated duration of the compliance issue and whether it may create an acute risk or imminent threat to human health or the environment, if this is the case, please call 800-292-4706
 - A description of measures planned to protect public health and environment during period the requirement(s) cannot be met
 - A central point of contact for the site, including an email address and phone number

Presentation Goals

- Reduce inspection anxiety
- Provide opportunity and tools to be prepared for an inspection
- Highlight inspector constraints
- Share examples of good and bad inspection observations

When and Why Does an Inspector Visit?

- Routine inspection
- Complaint
- Record discrepancy
- Request of another agency

How to Survive an Inspection

- Relax
- Be nice
- Don't hide anything
- Fix things immediately, where possible
- Have your records in order

Waste Regulations

- Public Act 451, Michigan Natural Resources & Environmental Protection Act:
 - Part 111, Hazardous Waste Management Statute and Rules
 - Part 121, Liquid Industrial By-Products, Statute
 - Part 115, Solid Waste Management Statute and Rules
 - Part 169, Scrap Tires Statute
- Act 368, Michigan Public Health Code:
 - Part 138, Medical Waste Regulatory Act Statute and Rules
 - Part 2, Ionizing Radiation Rules, Statute and Rules
- Federal Toxic Substance Control Act (TSCA)

Required Paperwork

- Waste Characterization Determination
- Generator Category Determination
- Notification of Hazardous Waste Activity
- Manifests and Shipping Documents
- Land Disposal Restriction Forms (LDR's)
- Waste Area Inspection Documents
- Annual Liquid Industrial By-Product Reports - **NEW in 2017**
- Biennial Hazardous Waste Reports
- Training Records
- Contingency Plans

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 2020

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Waste Webinar Series

EGLE

Waste Characterization

- Must have record documenting your waste determination for each waste stream, whether it is:
 - Hazardous waste
 - Liquid industrial by-product

- Solid waste
- Other like medical waste, PCB, or radioactive
- Records for each waste stream must include: **NEW Rule 311**
 - Date/person performing evaluation
 - Waste type, description, codes
 - Source of waste
 - **Chemical composition and properties of the waste and the anticipated fluctuations in its chemical composition and properties**
 - **Details on duration process and materials are used before discard**
 - Test results
 - Waste sampling records
 - Safety Data Sheets
 - Sampling procedure **and accuracy**
 - Representative sample information
 - **The knowledge basis for the determination if testing was not conducted**

Generator Category

- Conditionally Exempt Small Quantity Generator (CESQG), soon to be **Very Small Quantity Generator (VSQG) (NEW Rule 304)**
 - Monthly nonacute hazardous waste generation ≤ 220 lbs. or $\sim 1/2$ drum, acute ≤ 2.2 lbs. and clean-up waste with acute constituents ≤ 220 lbs.
 - Total hazardous waste accumulation must always be ≤ 2200 lbs. (~ 5 drums).
 - Wastes are properly disposed under other regulations.
 - Records of waste characterization, generator status, and lawful disposal are maintained for 3 years
 - Waste accumulated on site never exceeds 13,200 lbs. or ~ 30 drums
- **Small Quantity Generator (SQG) (NEW Rule 306)**
 - Monthly nonacute hazardous waste generation > 220 lbs. to $< 2,200$ lbs. or $\sim 1/2$ to 5 drums, acute ≤ 2.2 lbs., and clean-up waste with acute constituents ≤ 220 lbs.
 - Total hazardous waste accumulation must always be $\leq 13,200$ lbs. or ~ 30 drums
- **Large Quantity Generator (LQG) (NEW Rule 307)**
 - Generates ≥ 2200 lbs. of non-acute hazardous waste per month AND/OR
 - *Generates or accumulates* > 2.2 lbs. of acute or severely toxic hazardous waste AND/OR
 - *Generates or accumulates* > 220 lbs. clean-up waste with acute constituents

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 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.)	\leq 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)	$\geq 1,000$ kilograms or more (2,200 lbs.) or more	\geq five 55-gallon drums or ≥ 250 gallons	> 1 kilogram (2.2 lbs.)	> 100 kilograms

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Generator Category

HAZARDOUS WASTE GENERATOR ACCUMULATION			
	VSQGs	SQGs	LQGs
Maximum amount of hazardous waste that can be accumulated on-site	<p>3,000 kilograms (2,200 lbs.) for nonacute, 1 kilogram (2.2 lbs.) for acute or severely toxic, and 100 kilograms (220 lbs.) for contaminated soil, water or other debris from the clean-up of acute or severely toxic.</p> <p>If exceed 3,000 kilograms (2,200 lbs.) nonacute, subject to SQG requirements unless the site meets Rule 116 episodic generator requirements under the Part 111 Rules.</p> <p>If exceed 1 kilogram (2.2 lbs.) acute or severely toxic or if exceeds 100 kilograms (220 lbs.) of contaminated soil, water or other debris from clean-up of acute or severely toxic hazardous waste generated per month, subject to LQG requirements, unless the site meets the Rule 116 episodic generator requirements under the Part 111 Rules.</p>	<p>6,000 kilograms (13,200 lbs.) for nonacute, 1 kilogram (2.2 lbs.) for acute or severely toxic, and 100 kilograms (220 lbs.) for contaminated soil, water, or other debris from the clean-up of acute or severely toxic.</p> <p>If exceed 6,000 kilograms (13,200 lbs.) nonacute, requires a hazardous waste license for storage.</p> <p>If exceed 1 kilogram (2.2 lbs.) acute or severely toxic, or 100 kilograms (220 lbs.) for contaminated soil, water, or other media from the clean-up of acute or severely toxic, subject to LQG requirements, unless the site meets the Rule 116 episodic generator requirements under the Part 111 Rules.</p>	No maximum amount.

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- Generator Category Calculation (**NEW Rule 303**)
 - Calculate the amount **generated**, not the amount **shipped**
 - Calculate the amount in lbs. or kilograms.
 - Include hazardous waste treated and/or disposed on-site unless it is hard piped to POTW

Notification of Hazardous Waste Activity

- Michigan hazardous waste small quantity generators (SQG) and large quantity generators (LQGs) must notify of their regulated waste activity on an **EQP 5150 form**
- The Materials Management Division issues SITE IDENTIFICATION NUMBERS (Site ID) to facilities *per site*
- Liquid industrial by-product generators are no longer required to have a Site ID number **New March 2016**
- Site notification using the EQP 5150 form is also required for:
 - Hazardous waste and liquid industrial by-product transporters
 - Liquid industrial by-product treatment, storage, and disposal facilities (called liquid industrial by-product “designated facilities” in the statute)
 - Hazardous waste treatment, storage, and disposal facilities
 - Large quantity universal waste handlers accumulating 11,000 lbs. or more of all universal waste types combined at any time during the calendar year
 - Used oil transport, transfer, processing, re-refining, marketing, and collection/aggregation
 - **Hazardous secondary materials** exemption **NEW 2017**
 - e-Manifest Brokers **NEW 2017**
 - **Academic lab rule** exemption **NEW 2013**
 - Aerosol cans universal waste large quantity handler (**NEW Rule 228**)
- SQGs and LQGs must re-notify SQGs and LQGs must renotify (**New Rule 308**)
 - SQGs must re-notify every 4 years starting in 2021 and thereafter. This re-notification must be submitted by September 1 of each year in which the re-notifications are required.
 - LQGs must re-notify every 2 years by March 1 in each even-numbered (biennial reporting) year

Notification of Hazardous Waste Activity - **NEW Rule 304 (VSQG), 306 (SQG) and Rule 307 (LQG)**

- LQG consolidating VSQG waste notification - Requires LQGs notify if they accept waste generated off-site by a VSQG they own or control for consolidation
- VSQG sending waste to a controlling LQG must
 - Submit a Notification of Hazardous Waste Activity Form and obtain a Site ID
 - 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
 - Maintain proper labeling and storage requirements
 - Use proper shipping documents
- LQGs consolidating VSQG waste must:
 - Notify EGLE 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.
 - Report VSQG consolidation activities in Biennial Reporting using a G51 source code to distinguish from the LQG’s own waste
 - Maintain records for 3 years

- Send the VSQG waste for treatment/disposal at a licensed TSD facility within 90 days of the accumulation date following normal LQG requirements
- Episodic generator provisions would:
 - Allow generators having once a year generating event at higher generator category to not have to comply with all of the higher-level requirements
 - Sets alternate regulations for short period of time
- Episodic events include:
 - Planned periodic maintenance cleanouts
 - Unplanned production upset condition, spills, or acts of nature
- One episodic event is allowed per calendar year, can petition approval for a second
- If first event is planned, a petition for a second event must be unplanned event or vice versa
- Episodic generators must
 - Notification on EQP 5150 required at least 30 days prior to planned episodic event
 - Notification on EQP 5150 required within 72 hours after an unplanned episodic event using the Site ID form
 - VSQGs need a Site ID
 - Maintain records of event for 3 years
- Notification on EQP 5150 is required for closure of LQG central accumulation area(s).
- LQG closure notification must verify that the site meets or does not meet the closure performance standards 40 CFR 262.17(a)(8)

Manifests & Shipping Documents

- Track waste from "cradle to grave" or from the time it is created, while it is transported, treated, stored, and until it is ultimately disposed.

Shipping Documents

- As of a March 2016 law change, uniform manifests are no longer required for documenting shipment of **liquid industrial by-product**
- "Shipping Document" is a log, invoice, bill of lading, or other record, written or electronic, that contains:
 - Name and address of the generator
 - Name of the transporter
 - Type and volume of the liquid industrial by-product(s)
 - Date of shipment
 - Name, address, and Site ID of the Designated Facility
- Must have record of shipping document and written confirmation from designated facility it received shipment
- If confirmation isn't provided, generator must contact designated facility and report to the EGLE any lost shipment

Liquid Industrial By-Product Designated Facility Annual Report **NEW 2016**

- First report was due April 30, 2017
- Fourth round of reporting was due April 30, 2020
- Report identifies liquid industrial by-product received in prior calendar year or 1/1/19 to 12/31/19
- E-mail completed EQP 1602 form (fillable adobe file) to EGLE-Part-121-Reporting@michigan.gov

Uniform Manifests/e-Manifests

- Uniform Manifests are required for shipping hazardous waste from 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 processing fee (\$8 to \$25 per manifest fees to EPA and most vendors also collect and additional charge for processing)
 - Generators must have copy of the manifest to document shipment and ultimate delivery of hazardous waste to the licensed hazardous waste TSDF
 - If confirmation isn't provided generator must contact license hazardous waste facility and report to EGLE

Hazardous Waste [Land Disposal Restrictions \(LDR\)](#)

- LQGs and SQGs must determine if the waste requires treatment before land disposal
- LQGs and SQGs must provide notice of LDR information for initial waste shipment to each off-site TSD
- Applies to listed & characteristic hazardous wastes from SQGs & LQGs
- Notification required even for shipment to non-land-based disposal options like incineration
- Keep LDRs & related documents for at least 3 years after waste last sent to TSDF
- LDR's must have complete information such as categories of waste and underlying hazardous constituents, Manifest document number, EPA waste codes, and treatment standards
- Information on LDR must be consistent with the waste characterization
- There is no standard EPA notification form for the LDR notice!

Hazardous Waste Biennial Report

- Details hazardous waste activity in the previous odd numbered year
- Required to be submitted electronically of LQGs and TSDs
- Submit to Materials Management Division by March 1 of even-numbered year
- Report includes both MI & EPA hazardous waste codes

Biennial Reports (Rule 313) **NEW Rules**

- Must file biennial report for all months in calendar year if an LQG (even for 1 month) in odd year
- Must file a biennial report if recycling hazardous waste without storing prior to recycling
- Submit by March 1 of even-numbered year over RCRAInfo (same system as e-Manifests)
- **Must include VSQG consolidated at LQG during odd years**

Hazardous Waste Area Inspection Documents

- SQG & LQG must perform central accumulation area inspections
- SQG must inspect containers and tanks weekly
- LQGs must inspect:
 - Containers weekly
 - Tanks daily
- SQGs and LQGs must document required inspections
- **SQG inspection records requirement is new**
- See [Hazardous Waste Inspection Checklist](#)

Emergency Planning & Training Requirements **New Rules 306 and 307**

- CESQG have no specific requirements
- SQG requirements include:
 - Basic training for handling hazardous waste and responding to emergencies
 - **Training must be documented is new**
 - No stipulated review period

- Must post *CURRENT* emergency info by phone near operations
- Must ensure emergency coordinator is identified and on premises or on-call
- See [Small Quantity Generator Emergency Posting](#)
- LQG employee training documents
 - Must have written hazardous waste training program
 - Must conduct annual training for employees
 - Must keep written training records for 3 years
 - Must have description of the type of training given
 - Must be conducted by someone who is qualified to conduct training
 - Must cover normal and emergency operations
- SQGs and LQGs must:
 - Make contact and arrangements with local fire department, police, hospitals, emergency response contractors, and local emergency response teams
 - **Both SQGs and LQGs** must document that they made this contact
 - Have *CURRENT* & complete written contingency plan on-site
 - **SQGs documenting arrangements were made is new**
- LQG Contingency Plan Requires Quick Reference Guide detailing **NEW Rule 307**
 - Types/names of hazardous waste and associated hazards
 - Estimated maximum amounts of hazardous wastes
 - Hazardous wastes requiring unique/special treatment
 - Map showing where hazardous wastes are generated, accumulated or treated at the facility
 - Map of facility and surroundings to identify routes of access and evacuation
 - Location of water supply
 - Identification of on-site notification systems
 - Name of emergency coordinator(s) or listed staffed position(s) and 7/24-hour emergency telephone number(s)

Other Recordkeeping **New Rule 307**

- 50-foot Waiver – if needed, containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from a LQGs property line unless a written approval is obtained from the authority having jurisdiction over the local fire code allowing hazardous waste accumulation to occur within this restricted area. A record of the written approval must be maintained on site as long as ignitable or reactive hazardous waste is accumulated in this area.

Other Recordkeeping **New Rules 306 and 307**

- SQG and LQG Tanks, New Rules 306(1)(d)(ii)(L) and 307(b)(ii)(B), must use inventory logs, monitoring equipment, or other records to demonstrate that hazardous waste has been emptied within 90 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 90 days of first entering. The inventory logs or records must be kept onsite and readily available for inspection.

Tank Certification

- Must obtain a written assessment that is reviewed and certified by a 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

All Records

- All required records must be:
 - Kept on-site
 - Kept for at least three years from the last date the waste was shipped off-site and
 - Made available to EGLE staff upon request.

What Do Inspectors Look at Beyond Records?

- Waste Handling and Accumulation Areas:
 - Process equipment
 - Waste point of origin
 - Waste containers and tanks
 - Labeling
 - Secondary containment

Inspection Day - Gallery of Violations

- e-Manifest & Shipping Documents Common Violations
 - Using wrong Site ID number
 - Failing to keep signed manifests for three years
 - Failing to have records of used oil or other liquid industrial by-products shipped on a consolidated shipping document
- Common recordkeeping violations
 - Failing to have waste characterizations on site for all wastes
 - Failing to have copy of last Biennial Report on-site (LQG)
 - Failing to have updated contingency plan on-site (LQG)
 - Failing to have annual personnel training records on-site (LQG)
 - Not keeping records for 3 years
 - Missing or incomplete information or inconsistencies
- Common Storage Violations
 - Failing to have adequate aisle space to properly inspect containers and for emergency personnel
 - Failing to have labels visible for inspections
 - Leaning drum, stacked more than 2 high
 - Exceeding the allowable on-site accumulation time limit for hazardous waste without requesting an extension or obtaining a storage permit
 - Using containers or tanks in poor condition
 - Leaving containers exposed to weather or vandals
 - Failing to keep the containers closed, except when waste is added or removed
 - Using funnels that are not screwed into the bung and not capable of being kept closed would be considered open
- Compliant Storage Options - Keep totes, drums and containers stored securely away from driveways, alleys and public access
- Compliant Closure Options
 - Use lockable options!
 - Use valves that automatically close when handle is released
- Storage Container Labeling Violations
 - Listing incorrect or incomplete information on hazardous waste labels

- Missing the accumulation date
- Missing the words “Hazardous Waste”
- Missing the hazardous waste number(s)
- New Labeling Requirement
 - Generator Improvement Rules will require that the hazardous waste tanks and containers be labeled to indicate the hazards of the contents.
 - Allows use of:
 - RCRA characteristic (e.g. ignitable, corrosive, reactive, or toxic)
 - U.S. DOT hazard communication placard
 - OSHA hazard statement or pictogram
 - NFPA chemical hazardous label
- Labeling - Liquid Industrial By-products
 - Labels must identify the contents of the tanks or containers
 - Good example includes marking a container of liquid industrial by-product antifreeze as “spent antifreeze,” “spent ethylene glycol,” or “spent propylene glycol”
 - Bad example of a labels that do not adequately describe the contents include “spent cleanser” or “lab waste.”
- Common Used Oil Violations
 - Using used oil to suppress dust
 - Unpermitted burning of used oil - Must be burned in Air Quality Division permitted or exempted fuel burning equipment
 - Storage in tanks and containers in poor condition, possibly leaking
- Common Secondary Containment Violations
 - Lacking or inadequate secondary containment for LQG, SQG with over 2200 lbs. & any facility storing acutely hazardous wastes
 - Failing to elevate containers or have containment sloped to drain when required
 - Lacking or inadequate squirt protection
 - Lacking or inadequate chemical resistant coating and having cracked surfaces
 - Failing to remove precipitation in a timely manner from containment areas
- Compliant Secondary Containment Options
 - Spill pallets OK for solids but does NOT provide squirt protection for liquids
- Sorbents
 - Sorbents used to clean up hazardous waste by SQG or LQG must be handled as hazardous waste
 - Can be landfilled IF:
 - Don’t contain free liquids, AND
 - Not a hazardous waste, OR
 - Were generated by CESQG/VSQG and approved by the receiving landfill

What Kind of Inspection Follow-up Is Necessary?

- Respond according to the letter sent by the Materials Management Division
- Accompany inspector if there is a follow-up second inspection
- Have a question about the inspection? Call the inspector who visited your facility