

SMALL QUANTITY HAZARDOUS WASTE GENERATORS

GUIDANCE

INTRODUCTION

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Materials Management Division (MMD) oversees hazardous waste handling across Michigan to ensure it is managed properly and in a manner that protects public health and our environment. Hazardous waste includes both characteristic and listed hazardous wastes as defined in [Part 111](#), Hazardous Waste Management, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451 (NREPA), as amended, in the [Part 111 rules](#) (see Identification and Listing of Hazardous Waste), and in the corresponding regulations found in the federal Resource Conservation and Recovery Act (RCRA) [40 CFR Part 261](#), which are also summarized in the [Waste Characterization and Generator Category](#) guidance.

This guidance provides the definition of a small quantity generator (SQG) of hazardous waste found in Rule 303 and summarizes the SQG requirements found in the following rules:

- The accumulation, labeling, and emergency preparedness and prevention requirements - Rule 306.
- The satellite accumulation requirements - Rule 305.
- The pre-transport requirements - Rule 310.
- The manifest requirements - Rule 309.
- The recordkeeping requirement - Rule 311.
- The land disposal restriction requirements - Rule 313.
- The episodic generator requirements - Rule 316.

SQG HAZARDOUS WASTE DEFINITION

An SQG generates the following amounts of hazardous waste in a calendar month:

- More than 100 kilograms (kg) (220 pounds) but less than 1,000 kg (2,200 pounds) of nonacute hazardous waste.
- Less than or equal to 1 kg (2.2 pounds) of acute hazardous waste.
- Less than or equal to 1 kg (2.2 pounds) of severely toxic hazardous waste.
- Less than or equal to 100 kg (220 pounds) of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste or severely toxic hazardous waste.

Note: Acute hazardous wastes include P-listed wastes in Table 205a of the [Part 111 rules](#) and wastes that have an (H) in the hazard code column to the right of the waste description in Table 203a of the [Part 111 rules](#). Severely toxic hazardous wastes have an “S” in their waste number and are listed in Table 202 of the [Part 111 rules](#).

When evaluating a site’s hazardous waste generator category, generators must count all of the hazardous waste generated across the entire site. Generators should not count hazardous waste managed under the universal waste requirements, used oil that is being recycled, or other non-hazardous liquid industrial by-products. For more information about managing those materials, see the [Universal Waste](#), [Used Oil](#) and [Liquid Industrial By-Products Generator](#) guidance documents.

Generators who generate acute or severely toxic hazardous waste and nonacute hazardous waste in the same calendar month must determine the generator category by counting separately the total amount of acute hazardous waste, severely toxic hazardous waste, and nonacute hazardous waste generated in the calendar month. See the [Waste Characterization and Generator Category](#) guidance for additional details.

Hazardous Waste that is managed as part of an episodic event in compliance with Part 111 is also exempt from being counted. Episodic events are discussed further in this document.

SQG CHARACTERIZATION AND GENERATOR CATEGORY REQUIREMENTS

SQGs are required to comply with the following characterization and generator category requirements:

- [Characterize](#) all waste streams and keep records of the determination for at least three years. The generator may determine if the waste meets one or more of the characteristics of hazardous waste by applying knowledge and/or testing the waste.
- Maintain information to support the SQG monthly generator status determination for at least three years.

MICHIGAN SITE IDENTIFICATION NUMBER

If a SQG does not have a Site Identification (ID) Number (sometimes called an EPA ID Number), an [EQP 5150](#) Site ID form must be submitted to notify EGLE of the hazardous waste activities. There is a \$50 application fee. EGLE will process the form and issue a unique Site ID Number for tracking the hazardous waste shipments. When completing the form, all of the regulated waste activities occurring at the site need to be identified. For example, if the business is a SQG and also generates used oil, they would file as a SQG and a liquid industrial by-products generator form. If it isn’t known for sure if a business has a Site ID Number, or what activities are on file, search the Waste Data System at www.deq.state.mi.us/wdsp/Home.aspx or contact the Environmental Assistance Center at 800-662-9278 or EGLE-Assist@Michigan.gov.

SQG HAZARDOUS WASTE ACCUMULATION AND TIME LIMITS

SQGs have accumulation time and quantity limits.

ACCUMULATION TIME LIMITS

Accumulated hazardous waste may be kept onsite for up to *180 days*, or *270 days* if the waste is shipped over 200 miles to a licensed Treatment, Storage, Disposal (TSD) or recycling facility. SQGs that accumulate beyond the SQG time limits are unlicensed, hazardous waste storage facilities.

ACCUMULATION QUANTITY LIMITS

SQGs have the following accumulation quantity limits:

- 1 Nonacute hazardous waste: If a SQG accumulates > 6,000 kg (13,200 pounds) of nonacute hazardous waste, the SQG does not meet the exemption and it is an unlicensed storage site. If an accumulation is expected to exceed 6,000 kg (13,200 pounds) of nonacute hazardous waste, the site must meet the LQG requirements before the site exceeds any of the LQG limits for nonacute hazardous waste. The beginning of the 90-day accumulation time limit is when onsite accumulation exceeds 1,000 kg (2,200) of nonacute hazardous waste.
- Acute or severely toxic hazardous waste: If a SQG accumulates > 1 kg (2.2 pounds) of acute or severely toxic hazardous waste, the SQG must manage the waste under the conditions for a LQG, unless the SQG hazardous waste is managed to meet the episodic event requirements discussed later in this document. The beginning of the 90-day accumulation time limit begins when onsite accumulation exceeds 1 kg (2.2 pounds) of acute or severely toxic hazardous waste.
- Cleanup residues from spills of acute or severely toxic hazardous waste: If a SQG accumulates > 100 kg (220 pounds) of cleanup residue from spills of acute hazardous waste, the SQG must manage the waste under the conditions for an LQG, unless the SQG hazardous waste is managed to meet the episodic event requirements discussed later in this document. The beginning of the 90-day accumulation time limit is when onsite accumulation exceeds 100 kg (220 pounds) of cleanup residues from spills of acute hazardous waste.

SQG SATELLITE ACCUMULATION

Hazardous waste managed in a satellite accumulation area must be counted when determining a site's generator category, but it is not included when evaluating the total amount of hazardous waste accumulated at the site and comparing it to the 6,000 kg (13,200 pounds) accumulation limit.

To qualify as a satellite accumulation container, the container must be at or near the point of generation and under the control of the operator. The point of generation for a listed hazardous waste is when it first meets the listing description. The point of generation for a characteristically hazardous waste is when the waste first exhibits the characteristic of ignitability, corrosivity, reactivity and/or toxicity.

A satellite accumulation area is limited to 55 gallons of nonacute hazardous waste, 1 quart of liquid acute hazardous waste or severely toxic hazardous waste or 1 kg of solid acute hazardous waste or severely toxic waste, for all waste streams combined. Once the limit is reached, the container must be labeled with an accumulation date that coincides with the date the excess amount began accumulating. Within three days, the excess accumulation must be moved to a central accumulation area.

SQGs with containers in satellite accumulation must also meet all of the following requirements:

- Accumulate the hazardous waste in containers that are in good condition and in a manner that prevents puncture or rupture.
- Accumulate the hazardous waste in containers made of or lined with materials that will not react with the hazardous waste, and are compatible with the waste
- Accumulate the hazardous waste in a manner that prevents any mixing of incompatible waste and keeps incompatible hazardous wastes separated.
- Immediately transfer hazardous waste from any leaking containers into containers in good condition.
- Label containers with the words “Hazardous Waste,” a description of the hazardous waste or the hazardous waste numbers, and a hazard indicator, all of which are to be clearly visible for inspection. Hazard indication options include hazard communications consistent with the U.S. Department of Transportation (USDOT) placards, OSHA Globally Harmonized System (GHS) pictograms, or NFPA chemical hazard labels. Hazard characteristics can also be labeled with the words ignitable, toxic for lead, corrosive, and/or reactive.
- Accumulate hazardous waste in containers that are kept closed except when adding or removing waste, and that are free of any liquids or residues on the exterior of the containers and/or tanks,

SQG CENTRAL ACCUMULATION AREA REQUIREMENTS

SQGs are required to comply with the following accumulation requirements:

General Requirements

- Accumulate the hazardous waste in containers or tanks that are in good condition and in a manner that prevents puncture or rupture.
- Accumulate the hazardous waste in containers and tanks that are compatible with the waste, will not react with the waste, and in a manner that prevents any mixing of incompatible waste.
- Accumulate the hazardous waste in a manner that prevents any mixing of incompatible waste and keeps incompatible hazardous wastes separated.
- Accumulate the hazardous waste in an area that is protected from weather, fire, physical damage and vandals and in a manner that prevents hazardous waste or hazardous waste

constituents from escaping, directly or indirectly, into soil, surface water, groundwater, drains, or sewers and so that fugitive emissions do not violate the air pollution control regulations under Part 55 of the NREPA.

- Accumulate the hazardous waste in containers or tanks that are kept closed except when adding or removing waste that are free of any liquids or residues on their exteriors.
- Have sufficient aisle space to allow movement of people and emergency response equipment. MIOSHA standard Part 75 for flammable and combustible liquids requires one clear aisle at least three feet wide.
- Accumulated in an area that meets the secondary containment requirements specified below.
- If shipping greater than 1,000 pounds of hazardous waste, have USDOT placards available for the transporters for the hazardous wastes that they generate.

Containers

- Immediately transfer hazardous waste from any leaking containers into a container that is in good condition.
- Inspect containers weekly for signs of corrosion or leaks and maintain a written log of the inspections, any deficiencies, and repairs.
- Label containers with the accumulation date, the words “Hazardous Waste,” a description of the hazardous waste or the hazardous waste numbers, and a hazard indicator, all of which are to be clearly visible for inspection. Hazard indication options include hazard communications consistent with the USDOT placards, OSHA GHS pictograms, or NFPA chemical hazard labels. Hazard characteristics can also be labeled with the words ignitable, toxic for lead, corrosive, and/or reactive.
- Provide secondary containment if accumulating more than 1,000 kg (2,200 pounds) of hazardous waste.

Tanks

- Label tanks with the words “Hazardous Waste,” a description of the hazardous waste or the hazardous waste numbers, and a hazard indicator, all of which are to be clearly visible for inspection. Hazard indication options include hazard communications consistent with the USDOT placards, OSHA GHS pictograms, or NFPA chemical hazard labels. Hazard characteristics can also be labeled with the words ignitable, toxic for lead, corrosive, and/or reactive.
- Inspect discharge control equipment daily to ensure it is in good working order and maintain a written log of the inspections, any deficiencies and repairs.
- Inspect data gathered from monitoring equipment daily to ensure the tank is being operated as designed and maintain a written log of the inspections, any deficiencies and repairs.
- Inspect construction materials for the tank weekly to detect corrosion or leaking of fixtures or seams and maintain a written log of the inspections, any deficiencies and repairs.

Records of inspections and inventories must be maintained for at least three years and be made available upon request. There are additional requirements for accumulating hazardous waste in tanks and alternate requirements for accumulating universal waste, which are not discussed in this guidance. For additional details on generator tank accumulation requirements, please see Rule 306(1)(d)(ii) of the [Part 111 rules](#) and the [SQG Tank Inspection form](#). For additional details on managing universal waste, please see the [Universal Waste](#) guidance.

SQG SECONDARY CONTAINMENT

Secondary containment is required for containers if the generator exceeds 1,000 kg (2,200 pounds) or roughly 4-5 drums of accumulated hazardous waste on site. The secondary containment must meet the following conditions:

Liquid hazardous waste and F020, F021, F022, F023, F026 and F027 wastes:

- Have an impervious base free of cracks or gaps.
- Be sloped or otherwise designed to elevate/protect containers from liquids.
- Hold 10% of the total volume of all containers or 100% of the volume of the largest container, whichever is greater.
- Prevent run on – unless the containment is of sufficient capacity to hold the run on and required volumes.
- Have accumulated liquids removed to prevent over-flow.
- Provide squirt protection so, if the container ruptures, the liquids stay within the containment area.

A general rule of thumb for determining squirt distance is to measure the tallest height of the containers and use that measurement as the minimum distance between the stored containers and the edge of the containment area. Splash guards or baffles may also be attached to the walls to extend the height of the wall to prevent squirting outside of the system.

Solid hazardous wastes with no free liquids:

- The containment area must be sloped and operated to drain liquid from precipitation.
- The containers must be elevated or protected from contact with accumulated liquid.

When accumulating hazardous waste in tanks, the tanks must be certified by a professional engineer as being able to contain the hazardous waste, having full secondary containment, and having a leak detection system that alerts personnel to leaks or established workplace practices that ensure leaks are promptly identified.

SQG SHIPPING AND DISPOSAL REQUIREMENTS

When [hiring](#) a company to transport hazardous waste, SQGs must contract with [permitted and registered transporters](#) to take the waste to [licensed TSD facilities](#) or recycling facilities with U.S. Environmental Protection Agency (USEPA) ID Numbers. SQGs must comply with applicable USDOT requirements for shipping waste off-site. The hazardous waste must be packaged, labeled, and marked to meet USDOT regulations. Each container of less than 119 gallons must be marked with the following information:

- 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 name and address.
- Generator Site ID Number.
- Manifest Tracking Number.
- Hazardous waste codes for the waste.

For questions about USDOT requirements, please see Chapter 4 of the Michigan Guide to Environmental, Health and Safety Regulations available at [Michigan.gov/EHSGuide](https://www.michigan.gov/EHSGuide) or contact the Michigan State Police Commercial Vehicle Enforcement Division at 517-284-3250 or the USDOT at 517-316-1205.

SQG UNIFORM HAZARDOUS WASTE MANIFESTS

A [uniform hazardous waste manifest](#) (USEPA Form 8700-22) must be used when shipping hazardous waste. The form provides cradle to grave tracking of hazardous waste shipments. Although the registered transporter may assist with completing the manifest on behalf of the generator, **generators remain responsible for all information on the manifests.**

The USEPA's RCRA Info system, available at <https://rcrainfo.epa.gov/rcrainfoprod/action/secured/login>, allows users to register as a SQG site for e-Manifesting if they wish to electronically create and sign manifests. RCRA Info registration is also required to view manifest records in the system or to submit post-receipt data corrections to manifests, regardless of the type of manifest (i.e., paper versus electronics).

There are three types of waste manifest creation options:

1. Paper (generator, transporter, and receiving facility all sign on paper). If a paper manifest is used, generators must make arrangements with their receiving facilities to obtain paper copies of the completed manifests for their files.
2. Hybrid (starts as paper manifest signed by the generator and then is signed electronically by the transporter and receiving facility).
3. Electronic (created in e-Manifest and electronically signed by all entities listed on the manifest).

All receiving facilities must submit manifests to the USEPA. Electronic and Hybrid Manifest are submitted instantaneous as they are signed electronically into the system. If a paper manifest is used, the receiving facility must submit the manifest to the USEPA within 30 days of receipt.

A manifest copy signed by the receiving facility must be received by the SQG within 60 days of shipping the hazardous waste. If you have not received the TSD facility copy of the manifest within 60 days, send a copy of the manifest along with an explanation to the EGLE, Hazardous Waste Program stating you have not received confirmation of the delivery from the TSD facility. For more information, please see the [USEPA e-Manifest Fact Sheet for Generators](#). Manifest records must be kept for at least three years from the date the waste was shipped off site.

SQG LAND DISPOSAL RESTRICTIONS

SQGs must determine if their waste requires treatment before land disposal and submit a [land disposal restriction](#) (LDR) form, also called a land ban form, to the licensed TSD facility with the initial shipment of that hazardous waste. Most TSD facilities will provide the forms and help their customers complete them. The LDR notices must be kept on site for at least three years from the date the hazardous waste was last shipped. If the generator uses multiple TSD facilities for the disposal of a waste stream, they are required to submit and retain a LDR form for each TSD facility used. LDR forms must be kept for at least three years from the date the waste was last shipped off site and be made available upon request.

SQG STANDARDS FOR EMERGENCY PREPAREDNESS AND PREVENTION

SQGs must maintain and operate their facility to minimize the possibility of fire, explosion, or release of hazardous waste. SQGs must train employees so they are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities. Employees must have training specific to the type of hazardous waste they are responsible for or will be handling. Records of employee training must be maintained on file and be made available upon request for not less than three years.

SQGs must post the following information next to the phone:

- Name and phone number of the emergency coordinator(s).
- Map of facility showing the location of fire extinguishers, fire alarms (if any), spill control equipment, and any public alert systems, etc.
- The phone number of the fire department, hospital, and police.

Download the template for the [SQG emergency posting](#) or request a self-sticking poster of the emergency posting by calling 800-662-9278.

SQGs must designate an emergency coordinator who is responsible and available for responding to any emergencies that arise. All areas where hazardous waste is generated or accumulated must be equipped with the following unless none of the hazards posed by the waste would require the type of equipment specified:

- An internal alarm system capable of providing immediate emergency instruction, voice or signal to personnel.
- A device, such as a telephone immediately available at the scene of operations or a hand-held two-way radio capable of summoning emergency assistance.
- Portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment.
- Water in adequate volume and pressure and supply hose, or foam producing equipment, automatic sprinkling equipment or water spray system.

All SQGs must test and maintain all communication and alarm systems, fire protection equipment, spill control equipment and decontamination equipment to ensure it is in proper working order if ever an emergency were to occur.

SQGs must also make arrangements with local police, fire department, hospitals, and hired response companies and those arrangement must be documented. Arrangements consist of sending a diagram or discussing the layout of the business, access roads, evacuation routes, and submitting to local hospitals the possible types of injuries or illnesses resulting from hazardous waste onsite, offering an opportunity for local responders an opportunity to become familiar with site specific details and hazards. The waste regulations also require SQGs to report a fire, explosion, or other release of hazardous waste, or hazardous waste constituents, that could threaten human health or the environment, or has reached surface water or groundwater. Immediate notification is required by calling the EGLE Pollution Emergency Alert System (PEAS) at 800-292-4706. To learn more, please see the resources at Michigan.gov/ChemRelease.

SQG REQUIREMENTS FOR PLANNED AND UNPLANNED EPISODIC EVENTS

An episodic event is an activity or activities, either planned or unplanned, that does not normally occur during generator operations and that results in an increase in the generation of hazardous wastes that exceeds the calendar month quantity limits for the generator's usual category. Episodic events can be planned or unplanned. A clean out of a tank or laboratory, or a facility expansion would be considered planned episodic events. A spill caused by a flood, damaged equipment, or a product recall would be considered an unplanned episodic event. Increased production of hazardous waste due to an increased rate of production is not an episodic event.

An SQG can maintain their existing generator category during a planned or unplanned episodic event if the site meets the SQG requirements, manages the episodic waste as specified in Rule 316 of the Part 111 rules, and the event does not result in an accumulation of more than 6,000 kg (13,200 pounds) of nonacute hazardous waste at any one time onsite. If the accumulation is expected to exceed 6,000 kg (13,200 pounds) of nonacute hazardous waste, the site may:

1. Meet the episodic requirements in Rule 316 by shipping waste off site to avoid exceeding the 6,000 kg (13,200 pounds) accumulation limit for nonacute hazardous waste in Rule 306; OR
2. Meet the LQG requirements when the site exceeds the LQG generator category limit of 1,000 kg (2,200 pounds) of nonacute hazardous waste.

If the episodic event is expected to exceed the event 6,000 kg (13,200 pounds) of nonacute hazardous waste, meeting the LQG requirements will maintain the site's exemption from having to obtain a hazardous waste storage license for the activity.

SQGs that exceed the 1 kg (2.2 pounds) limit for acute or severely toxic hazardous waste may manage the acute or severely toxic hazardous waste as an episodic event and maintain their SQG category

SQGs must maintain records associated with the episodic event. SQGs are limited to one episodic event per calendar year; however, the generator may petition EGLE for a second episodic event. The second episodic event cannot be the same as the first episodic event (if the first event in the calendar year was planned, the second must be unplanned and vice versa).

An episodic event cannot last more than 60 days beginning on the first day episodic waste is generated and concluding on the day the hazardous waste is removed from the generator's site. To maintain SQG status during an episodic event, the SQG must comply with the following:

- Notify EGLE of a *planned episodic event* at least 30 calendar days before the event using the Site ID Form. The notification must include the start date and end date of the episodic event, the reason(s) for the event, types and estimated quantities of hazardous waste expected to be generated as a result of the episodic event, and shall identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to an emergency.

SQGs remain SQGs if they meet the Rule 316 episodic requirements, and the event does not result in an accumulation of more than 6,000 kg (13,200 pounds) of nonacute hazardous waste at any one time on site. When completing the initial [Site ID form](#), there is a \$50 fee. SQGs notifying for an episodic event are to notify as a SQG and complete the addendum on Page 8 for the episodic event. When completing the form, notify EGLE of all of the regulated waste activities occurring at the site. The form can be submitted electronically or by mail. It must be signed and dated by the person responsible for the site's hazardous waste activities. See the [Hazardous Waste Program Forms and License Application Web page](#) for additional details on completing and submitting the notification and paying the fee.

- Notify EGLE by phone, email, or fax within 72 hours of an unplanned episodic event, followed by written notification of the *unplanned episodic* event using the Michigan Site ID Form. The notification must include the start date and end date of the episodic event, the reason(s) for the event, types and estimated quantities of hazardous waste expected to be generated as a result of the episodic event, and shall identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to an emergency.
- When accumulating the episodic waste in containers, label the container with the words “Episodic Hazardous Waste” and the date the episodic event began.
- When accumulating hazardous waste in tanks, label the tank with the words “Episodic Hazardous Waste” and use inventory logs, monitoring equipment, or other records to identify the date upon which the episodic event began.

Send the episodic hazardous waste for treatment, storage and/or disposal within 60 days of the start of the episodic event to a licensed hazardous waste disposal facility using both a Uniform Hazardous Waste Manifest and a permitted and registered hazardous waste transporter.

- Maintain the following records of the SQG episodic event for at least three years from the end of the episodic event:
 - The beginning and end dates of the episodic event.
 - A description of the episodic event.
 - A description of the types and quantities of hazardous wastes generated during the event.
 - A description of how the hazardous waste was managed and the name of the hazardous waste designated facility that received the hazardous waste.
 - The name(s) of the hazardous waste transporter(s).
 - A written approval from EGLE, if the generator petitioned for a second event during the same calendar year.
- Meet the LDR requirements for the episodic hazardous waste.

SQGs with an episodic event will be charged the LQG handler fee for any year that they have an episodic event.

ADDITIONAL RESOURCES

To learn more, consider reviewing the following:

- Michigan Guide to Environmental Regulations, Chapter 2 - [Michigan.gov/EHSGuide](https://www.michigan.gov/EHSGuide).
- Recorded Waste Webinar Series available at [Michigan.gov/EGLEEvents](https://www.michigan.gov/EGLEEvents) under Recorded Webinars.
- USEPA Frequent Questions About Implementing the Hazardous Waste Generator Improvements Final Rule
- USEPA Map of Where the Hazardous Waste Generator Improvements Rule is in Effect

To find disposal options, search online using any search engine, see the [list of vendors](#) that assist with the collection of household hazardous waste, or contact your local [household hazardous waste coordinator](#). For additional assistance from EGLE staff, contact the Environmental Assistance Center at 800-662-9278 or EGLE-Assist@Michigan.gov and ask them for hazardous waste program staff in your county.

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