



NON-HAZARDOUS LIQUID INDUSTRIAL BY-PRODUCTS GENERATOR REQUIREMENTS

Guidance

Many different types of entities, including government agencies, produce unwanted, discarded liquids and sludges that are regulated as liquid industrial by-products under Michigan's waste regulations. Liquid industrial by-products are not just generated by industrial activities. Common examples of liquid industrial by-products include used petroleum, animal or vegetable oils being recycled; storm sewer, catch basin, and sanitary sewer clean-out residues being disposed; grease trap waste; industrial wastewaters; uncontaminated precipitation removed from secondary containment structures; wash waters; [antifreeze](#) that is not a hazardous waste; and some off-specification commercial chemical products. This guidance summarizes the liquid industrial by-product generator requirements found in [Part 121, Liquid Industrial By-Products](#), of Act 451 (Part 121). Household waste is not subject to the liquid industrial by-products regulation unless it is mixed with non-household discarded liquids. If unwanted household liquids are collected and managed separately from liquid industrial by-products, they may be managed to meet the waste diversion requirements found in [Part 115, Solid Waste Management](#) of Act 451 of 1994, as amended (Act 451). When mixed with discarded liquids from non-households, they too are subject to the liquid industrial by-product regulations.



Liquid industrial by-product includes any unwanted liquids or sludges that meet all of the following conditions:

- The discarded material is a liquid. The paint filter test or Test Method 9095 is the test method required to demonstrate a representative sample of waste is/is not liquid. This test method is described in the "Test Methods for Evaluating Solid Wastes, Physical-Chemical Methods" SW-846 available on-line at www.epa.gov/sw-846/main.htm. When performing Test Method 9095, a predetermined amount of the sample is placed in a paint filter. If any portion of the material passes through and drops from the filter within the 5-minute test period, the sample contains free liquids and is subject to regulation as a liquid industrial by-product. Any unwanted non-hazardous material containing free liquids is a liquid for the purpose of compliance with Part 121.
- The discarded material is not subject to hazardous waste regulation. See the waste characterization [guidance](#) and recorded [webinar](#) for information on how to determine if your waste is subject to hazardous waste regulations. [Conditionally exempt small quantity generator](#) hazardous waste liquids must be managed, at a minimum, to meet the liquid industrial by-product regulations.
- **The discarded material is generated by a non-household entity.** Hospitals, service industries like dry cleaners and auto repair facilities, manufacturing industries like machine shops, and municipalities are all subject to the Part 121 liquid industrial by-product regulations.
- **The discarded material is not specifically or conditionally excluded from the definition of liquid industrial by-product.** See the definition of liquid industrial by-product found in Section 324.12101(n) of Part and the materials specifically excluded from regulation as a liquid industrial by-products under Section 324.12012a of [Part 121](#).

Liquid Industrial By-Products management is overseen by several entities:

- The Office of Waste Management and Radiological Protection (OWMRP) oversees the management of liquid industrial by-products at generator locations, destination receiving facilities called liquid industrial by-product "designated facilities," and some authorized land application sites depending on the characteristics of the liquid industrial by-product, it may also be regulated under Part 115, Solid Waste Management, of Act 451, which is also overseen by OWMRP. Used oil is also subject to management requirements found in [Part 111, Hazardous Waste Management](#), of Act 451, the [Part 111 rules](#), and [Part 167, Used Oil](#), of Act 451. The OWMRP also oversees the permitting and registering of liquid industrial by-products transporters pursuant to the [Hazardous Materials Transportation Act, Act 138](#) of 1998, as amended.

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The Michigan Department of Agriculture and Rural Development oversees the land application of liquid industrial by-products that can be land applied in accordance with the [Right to Farm Act](#).

- The Water Resources Division (WRD) oversees the permitting and discharge of liquid industrial by-products into [surface water](#) and [groundwater](#).
- Municipalities owning and operating local waste water treatment plants (WWTPs) oversee the permitting and discharge of liquid industrial by-products to their sewer system. Prior to discharge to any sewer system, permission to discharge must be obtained from the [local authorities](#).
- Other local agencies, which vary between communities, oversee local ordinances. Therefore, the local authorities that oversee liquid industrial by-product locally may be the county, city zoning or building office, the public health department's environmental health section, or fire department.
- The [Michigan State Police, Commercial Vehicle Enforcement Division](#) and US Department of Transportation ([US DOT](#)) oversees transportation requirements if the waste is a US DOT hazardous material.
- Insurance companies may have requirements for storage and shipping of liquid industrial by-products.

If the facility generates liquid by-product, the company needs to:

1. Characterize the waste to determine the appropriate management standards.

- ✓ See the waste characterization [guidance](#) and recorded [webinar](#) for information on how to determine if a discarded material subject to hazardous waste, liquid industrial by-product, or solid waste regulations. If the material is determined to be a liquid industrial byproduct, handle it to meet the requirements summarized in this guidance.
- ✓ Keep [records](#) of waste evaluations, test results, or other information used to determine the type of waste/by-product at least three years after it is shipped for treatment, storage, or disposal.

2. Meet storage requirements.

- ✓ Protect containers from weather, fire, physical damage and vandals. Remember to leave enough room when filling containers so the container doesn't fail because the contents expanded in the heat or froze in the cold.
- ✓ Mark or label containers so workers know what is in the container. Make sure the labels stay readable. If it is used oil, the used oil regulations require the label to state

"[Used Oil](#)." You may use purchased labels, handwrite or stencil the waste information on the container, or you can buy containers with information already printed on the container. Labels should include language that is commonly used in commerce and emergency response that is commonly used in commerce and emergency response to describe the liquid industrial by-product. This may include a product name and details regarding the process generating the waste. Labels should include a description consistent with the waste type used on the shipping documents and the characterization record documenting the liquid industrial by-product determination.

The content description required for labeling liquid industrial by-product and the waste type used for shipping and reporting liquid industrial by-product is separate, unique, and different from the U.S. DOT shipping description, class, and identification number specified in 49 CFR 172.101 that must be included on a bill of lading for shipping a liquid industrial byproduct that is a hazardous material as defined under U.S. DOT standards. A generator can include the words "by-product" or "waste" on a label, as long as the label accurately describes the liquid industrial by-product.



Example of using racks to protect drums from physical damage from traffic.



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- ✓ Manage liquid industrial by-product to prevent releases into air, soil, drains, surface water or groundwater.
 - Containers must be maintained in good condition.
 - Any leaking containers must be replaced.
 - Containers must be kept closed except when adding or removing waste, or managed in accordance with other state laws. For liquid industrial by-product, closed means that container covers are securely affixed with a bolted ring clamp or closed snap ring, bung plugs are installed in openings, and threaded covers are screwed shut. Non-pressurized mobile oil drain pans must be, at a minimum, emptied when not in use. If a funnel is routinely used, to avoid having to remove the funnel and reclose the container regularly, a threaded funnel with a one-way valve, ball valve, or funnel with a latchable, gasketed cover can be used.
 - Containers must be compatible with the type of waste being stored in them. The Safety Data Sheet (SDS) for the virgin ingredients may provide some recommendations or see Web sites like www.flw.com/datatools/compatibility/.
 - Incompatible wastes must not be placed in the same container.
- ✓ Liquid industrial by-product that has a flashpoint above 140 degrees Fahrenheit and below 200 degrees Fahrenheit that is stored in aboveground containers and tanks would also be regulated as a flammable and combustible liquid by the Michigan Department of Licensing and Regulatory Affairs (LARA), Bureau of Fire Services, Storage Tank Division. You may also be regulated by the MIOSHA General Industry Safety Standards - Part 75, Flammable and Combustible Liquids available at www.michigan.gov/miosha, and the local municipality's fire prevention code.
- ✓ Liquid industrial by-product in an underground storage tank that is a [regulated substance](#) under Part 211 (Underground Storage Tanks) of Act 451 would have additional requirements under the tank regulations. For forms and additional information, please go to www.deq.state.mi.us/sid-web/.
- ✓ If the waste in aboveground containers contains 1 percent or more of the polluting materials identified in the WRD's [Part 5, Spillage of Oil and Polluting Materials rules](#), and the facility meets the threshold management quantity (TMQ), then the facility must also meet those rule requirements. For the listed chemicals the TMQ is 440 pounds when stored outdoors, or 2200 pounds when stored indoors. See information at www.michigan.gov/deqwater "[Emergency Response for Releases to Water](#)."
- ✓ There are no state time limit requirements on storing liquid industrial by-product at the generating facility, but local ordinances may have limits.
- ✓ See the [Holding Tank](#) guidance if using one for accumulation and storage.
- ✓ A generator of liquid industrial by-product is no longer required to obtain a Site Identification Number if the only activity occurring at the site is the generation of liquid industrial by-product and/or conditionally exempt small quantity generator hazardous waste. If the site accepts liquid industrial by-product from another site (e.g. acts as a liquid industrial by-product "designated facility") and/or self-transportes their own liquid industrial by-product, a site notification must be filed for the activities occurring at that site and a Site Identification Number will be assigned. See the Site Identification Form EQP 5150 and instructions on-line at www.michigan.gov/deqwaste under "Announcements" to notify of waste activities. A Site Identification Number is also often called an EPA ID number. It is issued to the owner or operator at a specific address and tracks the waste activities occurring over time at the site. The Site Identification Number is used on the Uniform Hazardous Waste Manifests and/or shipping documents to help verify proper recycling and disposal of liquid industrial by-product. To determine if a Site Identification Number has been assigned to a site and to determine what activities are occurring at a site, search the [Waste Data System](#) (WDS) at www.deq.state.mi.us/wdsp using the street number and zip code for the site in question.



Non-pressurized mobile
oil drain pan

3. Meet shipping document requirements.

A liquid industrial by-product generator must create and maintain a shipping document for all liquid industrial by-product shipments. A shipping document can be a log, invoice, bill of lading, Uniform Hazardous Waste Manifest or other record; and it can be in written or electronic form. All shipping documents must include the following information:

- ✓ Name and address of the generator
- ✓ The name of the transporter
- ✓ The type and volume of liquid industrial by-product in the shipment
- ✓ The date the by-product was shipped off site from the generator
- ✓ The name, address and Site Identification Number of the designated facility.

Liquid industrial waste codes are not required but may be used, so long as all of the required information is included on the shipping document. If using a Uniform Hazardous Waste Manifest for shipping only liquid industrial by-product from a site without a Site Identification Number, the DEQ encourages use of the following for the Generator Site Identification Number field:

- “MICESQG” for shipping CESQG hazardous waste liquids
- “MILIB” for shipping liquid industrial by-product(s)
- “MICESQLIB” for shipping both CESQG liquid hazardous waste and liquid industrial by-product(s).

The generator must sign the shipping document, certifying that the liquid industrial by-product in the shipment is fully and accurately described on the shipping document, is in proper condition for transport, and that the information on the shipping document is factual. The transporter must sign the shipping document certifying that the liquid industrial by-product on the shipping document was received for shipment. A copy of the shipping document must be maintained by the generator, and a copy provided to the transporter to accompany the shipment. The transporter must deliver the liquid industrial by-product only to the designated facility listed on the document. The designated facility receiving the shipment must provide confirmation of receipt to the generator or the generator’s authorized representative. The confirmation may be a documented phone call, email, or other receipt, written or electronic.

A consolidated shipping document may be used to document transport of a uniform type of by-product collected from multiple pick-ups in one shipment. For a consolidated shipping document, the transporter is listed as the generator on the shipping record and the confirmation of receipt from the designated facility is provided to the transporter. However the generator of the waste remains responsible for proper handling of the shipment. When a consolidated shipping document is used, the generator must obtain a receipt from the transporter listing the transporter company’s name, the driver’s signature, the date of pickup, the type and quantity of by-product accepted for shipment, the consolidated shipping document number, and the designated facility.

Shipping records, including consolidated shipping records, and confirmation of designate facility receipt of shipments must be kept by the generator of records for at least three years after the liquid industrial by-product was shipped for treatment, storage, or disposal.

A liquid industrial by-product generator must either hire a [permitted and registered liquid industrial by-product transporter](#) to take the waste to an appropriate disposal or recycling facility or they may self-transport liquid industrial by-product if it was generated from equipment or property in which they have an ownership interest. When self-transporting, although a permit and registration is not required under Act 138, spill insurance must still be maintained.

4. Meet on-site treatment requirements.

- ✓ If the company is operating an on-site reclamation, treatment, or disposal facility, keep records of all liquid industrial by-product produced and reclaimed, treated or disposed at the facility.
- ✓ If liquid industrial by-product is treated, stored or disposed of in a surface impoundment, obtain the applicable Part 31 (Water Resources Protection) of Act 451 discharge permit and manage leachate appropriately. Discuss specific requirements with the DEQ [District Office](#).

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5. **Immediately report a release that could threaten public health or the environment or one that reached surface water or groundwater.** Report releases to the Pollution Emergency Alerting System at (800) 292-4706 that could threaten the public health, safety, and welfare, or environment, or that has reached surface water or groundwater and prepare a written report. If waste is subject to other regulations that require release reporting, also meet those requirements. Information at www.michigan.gov/deqrelease.
6. **Cleanup all spills.** If you have questions about cleanup requirements, contact the DEQ [District Office](#). Cleanups may be overseen by the Remediation and Redevelopment Division or OWMRP, depending on the circumstances.
7. **Plan to prevent emergencies.** Depending on the type of liquid by-product, emergency planning may be required if threshold management quantities are reached under other regulations. Common examples include:
 - a. Oil storage under the [federal Spill Prevention Control and Countermeasure](#) (SPCC) regulations. A SPCC plan is required when oil storage capacity on-site meets 1320 gallons. Oils include used and virgin oils, gasoline, diesel fuel, etc. SPCC regulations also require secondary containment, inspections and release reporting.
 - b. Ethylene glycol antifreeze is regulated under the state's [Part 5 rules](#) "Spillage of Oil and Polluting Materials" when a facility has 440 pounds of regulated materials stored outdoors or 2200 pounds stored at discrete indoor areas. To determine if you have other polluting materials, see the list of regulated chemicals in these rules. They apply when the liquid by-product concentration is 1 percent or more and more of the listed chemical. More information is available at www.michigan.gov/deqwater "Emergency Response for Releases to Water."

Talk to your [environmental consultant](#), call the DEQ [District Office](#), or call the Environmental Assistance Center at 800-662-9278 with questions about the regulations.

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