



MATERIALS MANAGEMENT REGULATIONS FOR GROWING AND PROCESSING MARIJUANA

GUIDANCE

To protect Michigan’s environment and comply with state and federal regulations, marijuana growing, and processing operations are subject to Michigan Department of Environment, Great Lakes, and Energy’s (EGLE’s) solid waste, hazardous waste, and liquid industrial by-product regulations. The following provides guidance on those requirements and which ones apply to marijuana cultivation and processing operations under the waste materials management regulations implemented by the Materials Management Division. While this list covers most state programs related to waste materials management, other federal, state, and local regulations or programs may apply. There are also additional regulations implemented by EGLE’s Air Quality and Water Resources Division.

CONTENTS

- Definitions 2
- Waste Regulations Associated with Marijuana Production and Processing 3
- Wastes Generated from Growing and Processing Marijuana 3
- Regulation of Unwanted Residuals From Marijuana Growing or Processing..... 4
- Regulation of Liquid Industrial By-Products 5
- Regulation of Solid Waste 5
- Permits, Licenses or Authorizations 6
- Additional Information 6

DEFINITIONS

WASTE – Waste is a legally defined term in several statutes. Generally, a waste is any material that can no longer be used for its original intended purpose, or at the moment that the generator decides to discard it. This includes materials that are discarded by being disposed or abandoned; and recycled, accumulated, reclaimed and/or processed in advance of being recycled or disposed. It includes materials like unused commercial chemical products that have expired and used materials that are speculatively accumulated. Materials are considered speculatively accumulated when less than 75 percent of accumulated materials remain unused after a year. Wastes are found in any physical form, including solid, liquid, semisolid, and gaseous form. The material management regulations require that wastes be [characterized](#) and that the waste generator maintain a [record](#) of the characterization for EGLE’s review for at least three years.

HAZARDOUS WASTE – Hazardous wastes are wastes that have been determined to be a threat to human health or the environment. Hazardous waste is defined in the federal Resource Conservation and Recovery Act (RCRA); Part 111, Hazardous Wastes Management, of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended (NREPA); and their corresponding rules. Federal and state regulations define wastes as hazardous if they 1) are included on specific lists within the state and federal rules (listed hazardous waste) or 2) exhibit a characteristic or characteristics that make them hazardous (characteristic hazardous waste). A waste is considered a characteristic hazardous waste if it meets the limits in the hazardous waste rules for being corrosive, ignitable, reactive, and/or toxic.

LISTED HAZARDOUS WASTE – Some wastes are automatically a hazardous waste because they are included on lists in the hazardous waste rules. To determine if certain toxic, industrial solvents or pesticides are a listed hazardous waste, search the [Part 111 rules](#) using the Chemical Abstract Service Number and chemical name from the product’s Safety Data Sheet, then evaluate the materials for the characteristics listed below.

CHARACTERISTIC HAZARDOUS WASTE – Some wastes are considered characteristic hazardous waste because they exhibit one or more of the four hazardous waste characteristics identified in the state and federal regulations, which include:

- **Ignitable hazardous wastes:** Starts burning easily; liquid with a flash point below 140 degrees F, solid that spontaneously ignites, ignitable compressed gas, and oxidizers.
- **Corrosive hazardous wastes:** Dissolves metals or burns skin; pH less than or equal to 2.0 or greater than or equal to 12.5.
- **Reactive hazardous wastes:** Undergoes rapid or violent chemical reaction at standard atmospheric conditions.
- **Toxic hazardous wastes:** Poisonous to humans and other living organisms because it contains one or more of the hazardous constituents found in Table 201a of the Part 111 rules at levels that meet or exceed the constituent levels listed when tested using the Toxicity Characteristic Leaching Procedure (TCLP) test.

UNIVERSAL WASTE – Includes specific hazardous waste types like aerosol cans, fluorescent light bulbs, consumer electronics, and antifreeze, that is eligible for management under [streamlined hazardous waste standards](#) (see R 299.9228(1)). Note that if waste eligible for management as a universal waste is not managed in accordance with the universal waste standards, then it would need to be managed as hazardous waste

SOLID WASTE – Includes garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings, municipal and industrial sludges, solid commercial wastes, solid industrial wastes, and animal wastes that are solid not a regulated hazardous waste or [medical waste](#).

LIQUID INDUSTRIAL BY-PRODUCT – Means any material that is not a regulated hazardous waste or medical waste, and is a liquid waste that is produced by, is incident to, or results from industrial, commercial, or governmental activity. The paint filter test is used to determine if a material is a liquid. If liquid from the waste drips through a paint filter, then it is regulated as a liquid industrial by-product. See Test Method 9095 as described in "Test methods for evaluating solid wastes, physical/chemical methods," United States Environmental Protection Agency Publication Number SW-846. See the definition of liquid industrial by-product and Section 12102a of [Part 121](#), along with the [EGLE Receiving Facilities Reporting Guide](#) for more details on exclusions.

WASTE REGULATIONS ASSOCIATED WITH MARIJUANA PRODUCTION AND PROCESSING

Large-scale marijuana cultivation operations generate solid waste, hazardous waste, universal waste, and/or a liquid industrial by-product that must be managed under the following regulations:

- Part 111, Hazardous Waste Management, of the NREPA
 - [Part 111 Statute](#)
 - [Part 111 Rules](#)
- [Part 121, Liquid Industrial By-Products Statute](#), of the NREPA
- [Act 138, Hazardous Materials Transportation Act](#)
- Part 115, Solid Waste Management, of the NREPA
 - [Part 115 Statute](#)
 - [Part 115 Rules](#)

In addition to the regulations listed above, the Medical Marijuana Facilities Licensing Act, 2016 PA 281, and its rules contain requirements for managing waste from growing and processing of marijuana. More details on this act can be found at Michigan.gov/MRA.

WASTES GENERATED FROM GROWING AND PROCESSING MARIJUANA

The growing and processing of marijuana in Michigan brings challenges regarding the disposal of generated wastes. Marijuana can be processed in a variety of ways. While it is anticipated that most of the waste streams will be eligible for disposal in a municipal solid waste landfill, others may require management as a hazardous waste or liquid industrial by-product. Each waste stream is

required to be [evaluated](#) by the generator or an [environmental consultant](#) or [disposal vendor](#) for the presence of both listed and characteristically hazardous wastes. For example, the use of various flammable chemicals (butane, ethanol, etc.) during the processing of marijuana could generate wastes that are characteristically hazardous for ignitability and/or toxicity. It's important to remember that *each* waste stream from *each* generating location will need to be fully evaluated to determine the proper disposal options, and the determination must be [documented](#) and available for inspection, for 3 years after the waste is last discarded.

Wastewater from the operation should be managed in compliance with the EGLE guidance document, "[Protecting Water Resources when Growing and Processing Marijuana](#)." Any management of the wastewater prior to discharge to the sanitary may be subject to regulation as a hazardous waste or liquid industrial by-product.

Unprocessed marijuana is currently not a listed hazardous waste under Part 111, of the NREPA. Characterization determinations change if the unprocessed marijuana comes into contact with listed hazardous waste or is processed with materials that can result in it exhibiting a hazardous waste characteristic. Waste byproducts resulting from chemical treatment have the potential to be a listed or a characteristic hazardous waste (see definitions above). The regulations require that each waste stream from treating marijuana be fully characterized on a case-by-case basis before disposal.

In addition, non-hazardous waste liquids are regulated under Part 121, Liquid Industrial By-Products. Part 121 includes recordkeeping, generation, storage, and transportation requirements.

Act 138 addresses permits, and registrations required for companies transporting hazardous waste, liquid industrial by product, or both.

REGULATION OF UNWANTED RESIDUALS FROM MARIJUANA GROWING OR PROCESSING

The regulation of unwanted residuals from the growing or processing of marijuana depends on the character and quantity of the wastes generated. If you determine your facility generates a regulated hazardous waste, it is in your interest to generate as little as possible and ensure generator accumulation time limits are met (180 days for small quantity generators and 90 days for large quantity generators). Refer to the "[Hazardous Waste Category and Summary of Accumulation Requirements](#)" for details on the requirements related to:

- Generator status (based on amounts of hazardous waste generated monthly and storage amounts)
- Transportation and disposal
- Waste analysis plans
- Inspection requirements
- Labeling
- Secondary containment
- Air emissions controls
- Contingency plans and emergency procedures
- Training
- Reporting
- Closure of accumulation areas

REGULATION OF LIQUID INDUSTRIAL BY-PRODUCTS

There are three options for managing liquid industrial by-products. The first is to discharge the waste to the municipal sanitary sewer with approval from the local wastewater treatment plant. This should be done only after discussing the character and volume of the waste with the owner/operator of the wastewater treatment plant and maintaining documentation of the discharge approval. The second option is to hire a permitted and registered liquid industrial by-product hauler to transport your material to an approved designated facility for treatment and/or disposal. See the Part 121 statute for regulation and exemptions and the “Liquid Industrial By-products [Generator Guidance](#) and [Frequently Asked Questions](#). The third option is onsite treatment of the wastewater/liquid industrial byproduct with discharge of the treated liquid to the ground or groundwater. For those with no access to a sanitary sewer system, onsite treatment and discharge to the ground or to groundwater may be an option. Discharge to ground or groundwater would need to be approved as a groundwater discharge, through the Water Resources Division. See “[Protecting Water Resources when Growing and Processing Marijuana](#).”

REGULATION OF SOLID WASTE

If you have determined that your waste is not a regulated hazardous waste or a liquid industrial by-product, then it is likely to be regulated as a solid waste. The following are commonly asked questions regarding the management of solid waste from marijuana processing and growing:

What can I do with leaves, stalks, flowers, stems, seeds, roods, and soils generated from my operation?

According to Michigan’s [Marijuana Regulatory Agency](#) (MRA) regulations, a marijuana product that is to be destroyed or is considered a waste must be rendered into an unusable and unrecognizable form through grinding and incorporating with an unusable solid waste.

How much of what materials do I have to mix with my marijuana product for disposal?

The ground marijuana product must be mixed with an equal volume of one of the following materials:

- Paper waste
- Plastic waste
- Cardboard waste
- Food waste
- Fermented organic matter or other compost activators
- Other wastes approved by MRA
- Soil

What are the proper management standards for the mixture of marijuana product and non-consumable solid waste?

The mixture must be managed in compliance with one of the following:

- Disposed into a licensed municipal solid waste landfill.
- Composted at registered yard waste composting facility provided EGLE has approved the facility’s operations plan.
- Sent to an anaerobic digester provided EGLE has approved the facility’s operations plan.
- Sent to a licensed municipal solid waste incinerator or a licensed hazardous waste incinerator.

Where are licensed municipal solid waste incinerators located in Michigan?

Kent County Waste to Energy
950 Market Avenue SW
Grand Rapids, Michigan
616-336-2502

PERMITS, LICENSES OR AUTHORIZATIONS

Depending on the character and volume of waste generated, you may require a permit, license, registration, or other authorization to manage wastes from your facility.

- Hazardous waste requirements – a generator of a regulated hazardous waste must obtain a Site ID for their facility. The application can be found at [Michigan.gov/EGLEWaste](https://www.michigan.gov/EGLEWaste), after selecting [Michigan Site Identification \(EQP5150\) Form](#).
- Liquid Industrial by-product requirements do not require a permit, or license, unless you are transporting the waste. See descriptions and guidance listed above.
- Solid waste requirements – You do not require a permit or license to manage or store non-hazardous solid waste. In addition, any person hauling non-hazardous solid waste does not require a permit or license from the state of Michigan. Of course, you must comply with all local zoning ordinances and special use permits to operate your facility. See our [Solid Waste Hauler Guide](#) for more details on solid waste transport.

ADDITIONAL INFORMATION

- **Compliance Assistance Resources** - Facilities that generate hazardous waste, including marijuana growers and processors, are encouraged to view EGLE's recorded [Waste Webinar Series](#), particularly the waste characterization and generator status webinar. Review our [Waste Characterization Guidance](#) and [Waste Characterization Record with Option Fillable Form](#) for reviewing and documenting your waste determinations for EGLE's review.
- **Permitting/Licensing/Registration/Other Authorization Resources** – To determine what authorizations may be needed from EGLE as a whole (all divisions), visit [Michigan.gov/EGLEPermits](https://www.michigan.gov/EGLEPermits) for our [Permit Information Checklist](#) and the [Michigan Guide to Environmental Regulations](#).

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