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## Mixed Medical Waste

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### How Do Michigan Medical Waste Regulations Coordinate with Other Waste Regulations?

Waste subject to multiple regulations must meet all of the requirements under each of the regulations unless the statute and/or rules specifically exempt or exclude the waste from being subject to the other regulation. The following describes medical waste and how it must be managed if mixed with hazardous waste or liquid industrial waste along with exemptions that may be used to exclude a waste from being subject to multiple regulations.

#### MEDICAL WASTE

The Michigan Medical Waste Regulatory Act, Part 138 of Act 368 ([MWRA](#)), defines medical waste to include the following that are not generated from a household, a farm operation, an agricultural business, a home for the aged, or a home health care agency:

- 1) cultures and stocks of infectious agents and associated biologicals, including laboratory waste, biological production wastes, discarded live and attenuated vaccines, culture dishes, and related devices;
- 2) liquid human and animal waste, including blood and blood products and body fluids, but not including urine or materials stained with blood or body fluids;
- 3) pathological waste which includes human organs, tissues, body parts other than teeth, products of conception, and fluids removed by trauma or during surgery or autopsy or other medical procedure, and not fixed in formaldehyde;
- 4) sharps which includes needles, syringes, scalpels, and intravenous tubing with needles attached; and
- 5) contaminated wastes from animals that have been exposed to agents infectious to humans, these being primarily research animals.

Medical waste does not include pharmaceuticals.

#### HAZARDOUS WASTE AND MEDICAL WASTE

Hazardous waste that is also a medical waste must be managed in accordance with Part 111, Hazardous Waste Management, of Act 451 ([Part 111](#)), the [Part 111 rules](#), and the [MWRA](#). An example of a waste subject to both hazardous waste and medical waste regulation would be an IV bag with partially administered chemotherapy agents that are a listed hazardous waste that remains connected to the tubing and needle used to administer the chemotherapy agent. If the IV bag has been completely administered, the empty container provisions found in R 299.9207 (Rule 207 of Part 111) may be used to exclude the empty hazardous waste container and ancillary equipment from being subject to the hazardous waste regulations. The needle and attached tubing that is infectious waste may also be removed from the rest



of the IV bag if using a [luer taper](#) system and managed as a medical waste separate from the hazardous waste pharmaceutical. The [universal waste](#) standards may afford streamlined hazardous waste management requirements for these dually regulated pharmaceutical waste streams. See the additional resources section at the end of this document for additional guidance on managing hazardous waste.

Hazardous waste generated by a [conditionally exempt small quantity generator](#) (CESQG) meeting the requirements of R 299.9205 of Part 111 is not subject to Parts 3 through 10 of the Part 111 hazardous waste regulations. Similarly, wastes generated by households are not subject to hazardous waste regulation. Consequently, household and solid CESQG waste may be managed as a non-hazardous solid waste.

## LIQUID INDUSTRIAL WASTE AND MEDICAL WASTE

The definition of a liquid industrial waste under Part 121, Liquid Industrial Waste, of Act 451, ([Part 121](#)) excludes medical waste as defined and regulated under the MWRA (MCL 324.12101(n)(iii)), containers that are empty (MCL 324.12102a(k)), and liquids generated by households (MCL 324.12101(l)(v)).

Liquid industrial waste should not to be mixed with medical waste since the wastes are subject to different management standards which are mutually exclusive. Both the standards under Part 121 and the MWRA cannot be met when the wastes are commingled unless they are sent to a Part 111/RCRA permitted and licensed hazardous waste incinerator for disposal.

## HOUSEHOLD MEDICAL WASTE

Medical waste from households is also excluded from the definition of medical waste and subject to non-hazardous solid waste regulation. It too can be disposed in the household trash. However, the DEQ encourages medical waste collections to minimize the risk of infection, injury and pollution. See the additional resources section at the end of this document for more information on collection and disposal of household medical waste.

## HOUSEHOLD PHARMACEUTICALS WASTE

Pharmaceuticals waste that meets the definition of a hazardous waste but is generated by a household is not subject to the hazardous waste regulation. It is also specifically excluded from regulation as a liquid industrial waste. As such, it is subject to regulation as a solid waste under [Part 115](#) and may be disposed with other household trash. To be a household waste, the waste must be generated by individuals on the premises of a household and composed primarily of materials found in the wastes generated by consumers in their homes. If exempt hazardous waste is mixed with hazardous waste subject to full regulation, the mixture is subject to hazardous waste regulation and must be managed accordingly.

Household pharmaceutical waste should not be flushed down the drain. The DEQ encourages the collection and incineration of pharmaceuticals in accordance with the waste standards that apply. See the additional resources section at the end of this document for more information on collection and disposal of household pharmaceutical waste.



## ADDITIONAL RESOURCES

### Businesses –

- 1) [Waste Characterization Guidance](http://www.deq.state.mi.us/documents/deq-ess-p2tas-wastecharacterization.pdf) - <http://www.deq.state.mi.us/documents/deq-ess-p2tas-wastecharacterization.pdf>
- 2) [Universal Waste Guidance](http://www.deq.state.mi.us/documents/deq-ead-tas-univwaste.pdf) - <http://www.deq.state.mi.us/documents/deq-ead-tas-univwaste.pdf>
- 3) [Non-hazardous Liquid Waste Generator Guidance](http://www.michigan.gov/documents/deq/deq-ess-p2tas-liwgenerator_207980_7.pdf) – [http://www.michigan.gov/documents/deq/deq-ess-p2tas-liwgenerator\\_207980\\_7.pdf](http://www.michigan.gov/documents/deq/deq-ess-p2tas-liwgenerator_207980_7.pdf)
- 4) [Conditionally Exempt Small Quantity Generator Guidance](http://www.deq.state.mi.us/documents/deq-ead-tas-wmd-cesq0997.pdf) - <http://www.deq.state.mi.us/documents/deq-ead-tas-wmd-cesq0997.pdf>
- 5) [Small Quantity Generator Guidance](http://www.deq.state.mi.us/documents/deq-ead-tas-wmd-smallqgr.pdf) – <http://www.deq.state.mi.us/documents/deq-ead-tas-wmd-smallqgr.pdf>
- 6) [Large Quantity Generator Inspection Checklist](http://www.michigan.gov/documents/deq/deq-whm-hwp-eqp5163_248873_7.pdf) – [http://www.michigan.gov/documents/deq/deq-whm-hwp-eqp5163\\_248873\\_7.pdf](http://www.michigan.gov/documents/deq/deq-whm-hwp-eqp5163_248873_7.pdf)

All of the above guidance can be located by going to <http://www.michigan.gov/deqwaste>, selecting “Hazardous and Liquid Industrial Waste,” “Hazardous and Liquid Industrial Waste Management,” and “Generators” as well.

**Treatment, Storage and Disposal Facilities** – Any Michigan facility that treats, stores, or disposes a waste subject to both hazardous waste and medical waste regulation or commingled liquid industrial waste and medical waste managed as a hazardous waste must:

- 1) be a notified hazardous waste destination facility with a Michigan Site Identification Number or U.S. Environmental Protection Agency (EPA) Identification Number;
- 2) be a Part 111/RCRA permitted and licensed facility;
- 3) be registered under the MWRA. Note that medical waste, following treatment as required under the MWRA, is no longer a medical waste subject to the MWRA and may be disposed in a Part 115, Solid Waste Management, of Act 451, (Part 115) permitted and licensed non-hazardous solid waste disposal facility. Part 115 facilities are not required to be registered under the MWRA; and
- 4) [characterize](#) and manage treatment residuals appropriately.

For further information on registrations and notifications:

- 1) Go to <http://www.michigan.gov/deqwaste> and select “Michigan Site Identification Form EQP5150 (Rev. 1/2009) and Directions (Rev. 7/2005)” for obtaining a Michigan Site Identification Number ([EQP 5150](#) form and instructions) or obtaining a Part 111/RCRA permit and license ([EQP 5111](#) form and instructions).
- 2) Go to <http://www.michigan.gov/deqwaste> and select “Medical Waste,” then “Initial Registration Application” for obtaining an initial medical waste registration form for medical waste producers.
- 3) Contact John Gohlke at 517-241-1320 to discuss questions related to medical waste.
- 4) Select [Online Services](#) from any of the DEQ web pages, select the [Waste Data System](#), and then enter site specific information related to the location under review to review current hazardous waste notification information on-line for Michigan facilities.
- 5) Go to <http://www.epa-echo.gov/echo/> or the U.S. EPA Enforcement and Compliance History Online (ECHO) database to review current hazardous waste information found in the federal data system.



Note that a waste subject to both hazardous waste and medical waste regulation or liquid industrial waste and medical waste regulation that is managed as a hazardous waste can also be sent to a universal waste handler or a designated facility so long as it is managed in accordance with the universal waste requirements of Part 111. See the [universal waste guidance](http://www.deq.state.mi.us/documents/deq-ead-tas-univwaste.pdf) found at <http://www.deq.state.mi.us/documents/deq-ead-tas-univwaste.pdf> for additional guidance on managing universal waste pharmaceuticals in Michigan. To meet the Michigan requirements for medical waste disposal, the destination facility would have to be a Part 111/RCRA permitted and licensed hazardous waste incinerator.

**Transporter** – Any Michigan transporter that transports a waste subject to both hazardous waste and medical waste regulation must:

- 1) meet the U.S. Department of Transportation (U.S. DOT) hazardous materials and medical waste regulations; and
- 2) be permitted and licensed by the Department of Environmental Quality under the Hazardous Materials Transportation [Act 138](#) to transport hazardous waste.

Similarly, any transporter of liquid industrial waste must also be permitted and registered under Act 138 to transport liquid industrial waste in Michigan. There are a few exceptions to the requirement to have an Act 138 permit and registration to transport hazardous waste and/or liquid industrial waste. For example, when the person transporting the waste is the generator or when the owner and operator of the motor vehicle used to transport the waste is a local, state, or federal government agent, an Act 138 permit and registration is not required. However, businesses exempt from the permitting and licensing requirements of Act 138 remain subject to the Act 138 requirements to obtain and maintain financial responsibility insurance for bodily injury, property damage, or environmental damage to third parties.

Contact Sgt. Susan Fries of the Michigan State Police, [Traffic Safety Division](#), at 517-336-6580 for information on U.S. DOT regulations. See the [Act 138 Web page](#) at [http://www.michigan.gov/deq/0,1607,7-135-3312\\_7235---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3312_7235---,00.html) for further information about Act 138 and contact Jeanette Noechel at 586-753-3846 with questions on Act 138 permitting and registration.

**Households** – To locate pharmaceutical collections for incineration in your area or learn how to prepare medications for disposal in the household trash if there are no collection options, go to <http://www.michigan.gov/deqwaste>, select “Hazardous and Liquid Industrial Waste,” “Household Hazardous Waste Collection,” “Household Hazardous Waste (HHW),” and “A Remedy for Residential Drug Disposal” or call the Environmental Assistance Program at 1-800-662-9278.

To locate residential medical waste collection options in your area or learn how to prepare medical waste for disposal in the household trash to decrease the risk of infection, injury, and pollution, go to <http://www.michigan.gov/deqwaste>, select “Medical Waste” and “[The Point is... Needles Hurt!](#)” or call the Environmental Assistance Program at 1-8900-662-9278.

**Out-of-State Resources** – Any out-of state management of hazardous waste and medical waste and/or non-hazardous liquid waste commingled with medical waste must meet the standards that apply in the other states involved with the management of these wastes. Please see the U.S. EPA [state resources locator](#) found at <http://www.envcap.org/statetools/> for more information on the regulations that apply in other states.

