



## Generator Treatment

**THIS POLICY DOES NOT HAVE THE FORCE OF LAW**

**Hazardous Waste**

*On October 20, 1998, Ohio EPA established rules to allow generators to treat hazardous waste they generate on-site without obtaining a hazardous waste installation and operation permit, provided they follow the requirements in Ohio Administrative Code (OAC) rule **3745-52-34**. OAC rule **3745-52-34** provides management requirements for accumulation of hazardous waste.*

### What is Treatment?

Treatment is defined in OAC rule **3745-50-10**(A) as any method, technique or process—including neutralization—designed to change the physical, chemical or biological character or composition of any hazardous waste to:

- neutralize the waste;
- recover energy or material resources from the waste;
- render the waste nonhazardous or less hazardous;
- make the waste safer to transport, store or dispose of;
- make the waste easier to recover or store; or
- reduce the waste volume.

**Examples of units requiring a hazardous waste installation and operation permit:**

- Incinerator;
- Waste piles (unless managed properly in a containment building);
- Surface impoundment; or
- Miscellaneous treatment unit.

### Can I Treat My Hazardous Waste On-site Without a Permit?

As a generator, you are allowed to treat hazardous waste on-site without obtaining hazardous wastes permit if you comply with the requirements found in OAC rule **3745-52-34**. Large quantity generators (LQG) can treat/store waste for up to 90 days after generation, while small quantity generators (SQG) can treat/store waste for up to 180 days after generation.

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### Can All Generators—Conditionally Exempt Small Quantity Generators (CESQG), SQGs and LQGs—Treat Hazardous Waste On-site without a Permit?

Yes, all three types of generators can treat hazardous waste on-site without a permit; however, if you are a CESQG, you must comply with the LQG requirements if you wish to treat your hazardous waste on-site. Again, these requirements can be found in OAC rule [3745-52-34](#). These units and the corresponding standards are:

- Containers - OAC rules [3745-66-70 to 3745-66-77](#)
- Tanks - OAC rules [3745-66-90 to 3745-66-99](#) and [3745-66-101](#), except [3745-66-97\(C\)](#)
- Drip pads - OAC rules [3745-69-40 to 3745-69-45](#)

**Note:** If you decide to treat your hazardous waste for a reason other than compliance with the LDR rules, keep in mind the waste must eventually be treated to the specified LDR standard before land disposal. The LDR standard is determined at the point the waste was generated. **Be careful not to treat your waste in a manner that makes it difficult (more costly) to meet LDRs.**

### Are my Containers Required to be Closed During Treatment?

Ohio's closed container requirements do not apply to containers while the container's contents undergo treatment. OAC rule [3745-52-34](#) (A) states that generators may conduct treatment for 90 days or less without a permit provided they comply with the container standards in OAC rules [3745-66-70 to 3745-66-77](#). The closed container requirements located in OAC rule [3745-66-73](#) state that containers holding hazardous waste must remain closed during **storage**, except when it is necessary to add or remove waste.

Storage is defined in Ohio Revised Code §[3734.01](#)(M), as the holding of hazardous waste for a temporary period in such a manner that it remains retrievable and substantially unchanged physically and chemically and, at the end of the period, is treated. Since a container is not considered to be in storage while its contents undergo physical or chemical changes (treatment), the closed container requirements do not apply. Generators must, however, ensure that there is no release of hazardous waste and they must comply with the closed container requirements before and after treatment. In addition, generators storing or treating hazardous waste in containers may be subject to federal Resource Conservation and Recovery Act (RCRA) regulations in 40 CFR [Part 265](#), Subparts AA, BB, and CC for air emissions.

### Do I Need a Waste Analysis Plan (WAP) if I Treat Hazardous Waste?

If you treat your hazardous waste to meet land disposal restrictions (LDR) under OAC Chapter [3745-270](#), you must develop and follow a written WAP pursuant to OAC rule [3745-270-07](#)(A)(5). If you are not treating a hazardous waste to meet LDRs, you are not required to have a WAP. However, your waste must meet the LDR treatment standards before it is

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land disposed. If you treat your hazardous waste to meet LDRs, you must comply with the notification and certification requirements found in OAC rule [3745-270-07\(A\)](#).

Lawful Treatment Examples		
Lawful Generator Treatment (no permit required)	Treatment Activities	Treatment Unit
Mixing a waste exhibiting the characteristic of toxicity for lead with cement to stabilize the lead	stabilization	containment building, tank or container
Treating a characteristic wastewater in an exempt wastewater treatment unit with a flocculent to remove the hazardous constituent from the wastewater	wastewater treatment	exempt wastewater treatment unit
Treating a hazardous corrosive sludge to land disposal restrictions (LDR) and disposing of the treated waste in a solid waste landfill	deactivation, neutralization	elementary neutralization unit, containment building, container or tank
Treating an ignitable resin by starting a polymerization reaction to form a solid non-ignitable waste	polymerization	tank or container

### What Should my WAP Include?

A WAP must:

- contain a detailed chemical and physical analysis of a representative sample of the prohibited waste being treated;
- contain all other information used to develop the plan;
- contain selected frequency of testing to demonstrate the waste meets the LDR; and
- be kept in your on-site files and made available to inspectors.

Additional information about WAPs can be found on DHWM's [Webpage](#).

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### Is a WAP Needed in these Examples?

#### Example 1

##### Situation:

A generator grinds up a hazardous waste in a 55-gallon drum to compact the material and ship it to a treatment, storage and disposal (TSD) facility for treatment.

##### Response:

A WAP is not required, because the generator is not treating the waste to meet LDRs. However, the generator must comply with OAC rule [3745-52-34](#) and all other applicable rules such as container management rules. A few of the container requirements include: keeping containers closed at all times, except when waste is added or removed; weekly inspections and labeling the container with the words “hazardous waste,” or with other words that identify the contents of the container.

#### Example 2

##### Situation:

A generator treats a characteristic waste to meet LDRs and sends the material to a solid waste landfill.

##### Response:

The generator must comply with OAC rule [3745-52-34](#) and OAC Chapter [3745-270](#), which includes a WAP.

### What Other Requirements Might I Need to Follow if I Treat Hazardous Waste?

You may be required to comply with federal RCRA regulations regarding air emissions from hazardous waste management – found in 40 CFR part [265](#) subpart AA, BB and CC. Any questions concerning AA, BB and CC can be directed to [U.S. EPA Region 5](#) at (312) 353-2000.

### Can I Dilute My Hazardous Waste?

OAC rule [3745-270-03](#) prohibits dilution of a hazardous waste to meet LDRs. If you are a generator and/or handler, you may not in any way dilute a hazardous waste or the residual from treatment of a hazardous waste as a substitute for adequate treatment to achieve compliance with the LDRs. There are exceptions, however, that allow dilution, such as OAC rule [3745-270-03](#)(B). This exception allows you to dilute characteristic hazardous wastewaters provided the unit discharges under a [National Pollutant Discharge Elimination System \(NPDES\)](#) or a [Clean Water Act \(CWA\)](#) equivalent treatment system.

### Can I Treat My Hazardous Waste and Dispose of it in a Solid Waste Landfill?

If you have treated a listed hazardous waste, you cannot dispose of it in a solid waste landfill. However, when a characteristic hazardous waste has undergone treatment to meet LDRs, the waste can be disposed of in a solid waste landfill. To do this you must:

- comply with OAC rule [3745-52-34](#) and OAC Chapter [3745-270](#);
- comply with the special rules regarding wastes that exhibit a characteristic in OAC rule [3745-270-09](#); and
- develop and follow a WAP.

### What if I Treat My Hazardous Wastewater in a Tank and Discharge the Water Under an NPDES Permit?

If you treat your waste in a wastewater treatment unit that meets the requirements of OAC rule [3745-54-01](#)(G) or [3745-65-01](#)(C), it is exempt from LDRs per OAC rule [3745-270-01](#)(C). You would not be required to develop and follow a WAP. Any waste you generate from the wastewater treatment unit must be evaluated to determine if it is a hazardous waste, and if LDRs are applicable.

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### May I use Evaporators to Treat My Hazardous Waste?

You can use evaporators to reduce the volume of your hazardous waste under the generator treatment requirements. However, if there is a release of hazardous waste or hazardous waste constituents to the air or to the environment, this would be considered disposal. A generator is not allowed to dispose of their hazardous waste on-site without a permit. This limits the use of evaporators for hazardous waste treatment to aqueous waste that does not contain volatile hazardous constituents (VHCs) unless the VHCs are first removed by filtration or removed in some manner.

Evaporators can be used to concentrate certain inorganic wastes, such as acidic solutions with heavy metals. However, some metals such as lead and mercury can be released to the air at certain temperatures. Waste containing organic constituents such as methylene chloride, are not appropriate for use in an evaporation system unless all vapors are captured and properly managed and there are no releases of hazardous constituents to the air or to the environment. The overriding determinant is that hazardous waste or hazardous waste constituents are not released to the environment. For more information on the use of evaporators, see *DMWM's Notifier* Newsletter article entitled, "*Can I Evaporate My Hazardous Waste?*".

### Are My Recycling Units Considered to be Treatment Units?

Your recycling process may be a treatment process; however, your recycling process is exempt from hazardous waste regulation as stated in OAC rule [3745-51-06\(C\)\(1\)](#). Storage of your hazardous waste before recycling is regulated, and any wastes derived from the recycling of listed hazardous waste are considered listed hazardous waste. Any wastes that exhibit a hazardous characteristic from the recycling a characteristic hazardous waste, must be managed according to all applicable hazardous waste regulations.

#### Example 1

##### Situation:

A large quantity generator plans on-site treatment (stabilization) of a lead (D008) contaminated hazardous waste. The generator wants to treat the waste to meet LDRs and dispose of the waste in a solid waste landfill.

##### Response:

OAC rule [3745-52-34](#) provides management standards a generator must follow while conducting on-site treatment of hazardous waste. A generator treating hazardous waste to meet LDRs must develop and follow a WAP per OAC rule [3745-270-07\(A\)\(5\)](#). A generator who generates a characteristic hazardous waste, as in this example, must comply with OAC rule [3745-270-09](#). This rule requires the generator of characteristic waste to identify underlying hazardous constituents (UHC). A list of UHCs is found in OAC rule [3745-270-48](#). When the waste has been treated to the appropriate treatment standard, found in OAC [3745-270-40](#), the generator is required to comply with the notification requirements of OAC rule [3745-270-09\(D\)](#), and can then dispose of the waste in a solid waste landfill.



#### Example 2

##### Situation:

A company proposes to install an evaporator to reduce the volume of hazardous wastewater. This company generates wastewater contaminated with metals. What are the company's options, and what are the regulatory obligations for each option?

##### Option A:

The company evaporates only the water portion of the wastewater via an evaporator, collects the sludge and disposes of the sludge as a hazardous waste. No hazardous constituents are released to the environment. Generators can evaporate the water portion of their hazardous waste if conducted under the generator treatment provisions in OAC rule [3745-52-](#)

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**34.** The overriding determinant is that hazardous waste constituents are not released to the environment. For more information on the use of evaporators, see *DMWM's Notifier* Newsletter article entitled, "*Can I Evaporate My Hazardous Waste?*"

### Option B:

The company evaporates the hazardous wastewater, recaptures the vapors in a condenser, discharges the wastewater under an NPDES permit or to a publicly owned treatment works (*POTW*) and collects the solids as hazardous waste. If the evaporator meets the definition of a wastewater treatment unit; [OAC rule [3745-50-10\(A\)](#)], then OAC rule [3745-50-45\(C\)\(5\)](#) exempts the owners or operators of elementary neutralization units or wastewater treatment units from obtaining a hazardous waste permit. Before the hazardous waste enters the wastewater treatment unit, all applicable hazardous waste regulations must be followed. Additionally, any residues from the treatment process must be evaluated and disposed of according to all applicable hazardous waste rules.

### Example 3

#### Situation:

The results of sampling activities performed at a property undergoing a Phase II site assessment have revealed lead contamination which exceeds TCLP within surficial soils on a portion of the site. The contractor, acting on behalf of the property owner to prepare the site for future redevelopment opportunities, wants to excavate the contaminated soils and treat them on-site to meet LDRs for disposal in a solid waste landfill.

#### Response:

In this scenario, the excavation of the contaminated soils, which exceed Toxicity Characteristic Leaching Procedure (TCLP) levels, would constitute "generation" of a regulated hazardous Waste.

Again, as in Scenario 1 above, OAC rule [3745-52-34](#) provides management standards a generator must follow while conducting both active management of such waste and any subsequent hazardous waste treatment activities performed on-site. When treating the waste to meet LDRs, the generator must develop and follow a WAP per OAC rule [3745-270-07\(A\)\(5\)](#).

A generator who generates a characteristic hazardous waste, as in this example, must comply with OAC rule [3745-270-09](#). This rule requires generators of characteristic waste to identify UHCs. A list of UHCs is found in OAC rule [3745-270-48](#). The waste must be treated to the appropriate treatment standard found in OAC rule [3745-270-40](#) or the alternative soil treatment standards, found in OAC rule [3745-270-49](#), before land disposal. If the alternative soils treatment standards are used, and the soil still exhibits a characteristic of hazardous waste, the soil must be sent to a permitted hazardous waste facility. Additionally, the generator is required to comply with the notification and certification requirements of OAC rule [3745-270-09\(D\)](#) prior to disposal of the waste in a solid waste landfill.

If information (e.g., records of former industrial activities performed at the site) was available to the property owner/contractor to indicate that the soil was contaminated with a listed hazardous waste, the soil would be considered listed hazardous waste. In this scenario, the generator may elect to treat the soils to meet LDRs; however, they cannot be disposed of in a solid waste landfill. The generator would be required to dispose of the soil in a licensed hazardous waste disposal facility.

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## Where Can I Go for More Help?

Please contact Ohio EPA's *Division of Materials and Waste Management* if you have questions regarding generator treatment or if you wish to learn more about ways you can reduce the amount of waste you generate.

### Division of Materials and Waste Management

#### Hazardous Waste Compliance and Inspection Support Unit

Lazarus Government Center

50 W. Town St.,

Suite 700

P.O. Box 1049

Columbus, OH 43216-1049

(614) 644-2621

[www.epa.ohio.gov/dmwm](http://www.epa.ohio.gov/dmwm)

### You can also contact an inspector from one of the *Ohio EPA District Offices*:

Central District Office: (614) 728-3778

Northeast District Office: (330) 425-9171

Northwest District Office: (419) 352-8461

Southeast District Office: (740) 385-8501

Southwest District Office: (937) 285-6357