

Fluorescent Lamps: What You Should Know

DHWM Guidance Document

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Do you use lamps?

EVERYONE uses lamps! Many people don't realize they can be hazardous because of the mercury, lead and cadmium they contain. When [Ohio EPA](#) uses the term "lamp" it includes:

- incandescent;
- fluorescent;
- metal halide;
- neon;
- high-intensity discharge (HID);
- high-pressure sodium;
- mercury-vapor;
- and LED lamps.

Why are waste lamps harmful?

Lamps can contain mercury, lead, cadmium and barium, which are toxic chemicals that can accumulate in living tissue and cause health problems. A small amount of mercury is needed in all [fluorescent](#) and HID lamps to make the lamp work. When a lamp breaks or is thrown away in a solid waste landfill or incinerator, the mercury can contaminate [air](#), soil, [surface water](#) and [ground water](#).

Be Aware!

Some fluorescent lamps contain up to 40 mg of mercury!



Are fluorescent lamps a good environmental and economic choice?

Yes. The use of energy-efficient lighting reduces electricity needed from power plants. This reduces harmful power plant emissions of mercury, carbon dioxide and nitrogen oxide. Using less energy reduces demands on electric utilities and results in cost savings for customers.

What is the best way to manage the hazardous lamps I generate?

We recommend that you manage your waste lamps under the [Universal Waste Rule](#) (UWR). The UWR eliminates many regulatory requirements such as waste evaluation, manifesting and record keeping. This rule ensures waste lamps will be properly recycled. By following the UWR, you will reduce the financial and regulatory burden on your company and help protect the environment.

What is the UWR?

The UWR streamlines collection requirements for certain hazardous wastes in the following categories: batteries, pesticides, mercury-containing equipment (such as thermostats) and lamps (such as fluorescent bulbs). The rule is designed to make it easier for universal waste (UW) handlers to collect these items and send them for recycling or proper disposal.

Advantages of managing waste lamps under the UWR:

- UW is not counted toward hazardous waste generator status.
- No manifesting required unless the waste lamps are transported through states, or treated or disposed in states that do not recognize mercury-containing lamps as a universal waste.
- Increased storage time available.
- Reduced administrative requirements for record-keeping, training, and emergency preparedness.

Managing your lamps as UW

If you choose to manage your waste lamps as UW, you are not required to evaluate them. You are, however, required to determine your handler category and then follow all requirements associated with that category. Most UW handlers are classified as small quantity handlers based on the total quantity of **all types** of UW waste they accumulate at any time. Small quantity handlers accumulate less than 5,000 kilograms, or 11,023 pounds of UW at any time. For example, 5,000 kg is approximately 17,000 four-foot lamps.

UW handlers who accumulate more than 5,000 kilograms of UW on-site at any time must comply with the large quantity UW [handler requirements](#) for the remainder of the calendar year.

The main advantages to managing waste under the UWR instead of the hazardous waste rules are that, the UWR requires less paperwork, less man-hours and saves you money.

May I use a lamp crusher to crush the lamps I generate?

Yes. However, if you choose to crush your lamps, you must manage them under the hazardous waste rules. You may not manage crushed lamps under the UWR.

What if I decide not to manage my lamps as UW?

If you choose not to manage your lamps as UW, then you must [evaluate](#) them to determine if they are hazardous. To evaluate your waste lamps, you can either:

- send a representative sample to a [laboratory](#) for testing; or
- obtain complete up-to-date analysis of the lamps from the manufacturer.

Managing your lamps as hazardous waste

If your lamps are hazardous, you must manage them according to [Ohio's hazardous waste rules](#). To know what rules to follow, you must know your generator category. Generator category is determined by how much hazardous waste you generate in a calendar month. For more details, please see our [Hazardous Waste Generator Categories guidance document](#).

What if my lamps have green tips?

Some fluorescent lamp manufacturers have created "green tipped" lamps that they claim are not hazardous. Although it's true that green tipped lamps contain less mercury than other lamps, this may not be enough for the green tipped lamps to avoid being regulated as hazardous waste. For the lamps to be non-hazardous, and therefore not subject to the hazardous waste rules, the laboratory test results must be less than all the regulatory limits found in Ohio Administrative Code (OAC) rule [3745-51-24](#). Some examples are:

- mercury - 0.2 mg/L;
- cadmium - 1.0 mg/L;
- lead - 5.0 mg/L;
- and barium - 100.0mg/L.

When you are done using any lamps at your facility, and are disposing or recycling them, they are a waste stream. According to OAC rule [3745-52-11](#), all wastes, except universal wastes, must be evaluated to determine if they are hazardous.



Non-hazardous Lamps:

While these lamps are not hazardous waste, they still contain low amounts of heavy metals such as mercury, lead and cadmium that can potentially harm the environment! Ohio EPA encourages recycling rather than disposing of non-hazardous lamps.

What if I have non-hazardous lamps?

If you determine your lamps are not hazardous, you have the option to manage them as [solid waste](#). However, we recommend you manage them as UW even though the UW compliance standards are not required.

Lamp Recyclers in Ohio:

Environmental Recycling

527 E. Woodland Circle
P.O. Box 167
Bowling Green, OH 43402
wgrabowski@envrecycle.com
www.envrecycle.com
phone: (800) 284-9107
fax: (419) 354-5110

U.S.A. Lamp & Ballast Recycling

7806 Anthony Wayne Ave.
Cincinnati, OH 45216
www.usalamp.com
phone: (800) 778-6645
fax: (513) 641-4156

Resources:

Division of Hazardous Waste Management Web site: www.epa.ohio.gov/dhwm

If you have more questions about hazardous waste please check the [Answer Place](#), call the DHWM Regulatory Services Unit at (614) 644-2917, or contact your local district inspector.