



# Universal Waste Regulations for Hazardous Lamps and Mercury-Containing Equipment in Texas

Many lamps and mercury-containing equipment (MCE) contain toxic substances, such as lead and mercury, that pose a threat to public health when improperly managed. These hazardous lamps and MCE are regulated under the universal waste (UW) rule. If lamps and MCE are not hazardous, they are not regulated as universal waste. If you handle hazardous lamps or MCE, you have the option of being a UW handler. This publication will help you understand the rules and how to comply with them.

## Lamps and MCE That May Qualify for Handling as UW

**Fluorescent lamps**—tube-style lamps, used as overhead lighting in offices and also available in compact globe shapes for a variety of home and office uses.

**Mercury vapor lamps**—high-intensity discharge (HID) lamps with blue-white light, used as exterior yard lights.

**High-pressure sodium vapor lamps**—white-yellow HID lights used for street lamps and outdoor home security lighting.

**Low-pressure sodium vapor lamps**—orange HID lights used primarily in commercial settings

**Metal halide lamps**—newer, more efficient HID lights found in homes and businesses.

**Incandescent lamps**—the standard light bulbs used in homes and businesses.

**Mercury-containing equipment**—including thermostats, barometers, manometers, temperature and pressure gauges, mercury switches, and various medical devices that contain varying amounts of elemental mercury used in homes, businesses, electric utilities, and other industries.

## Regulations on UW Lamps and MCE

The Texas Commission on Environmental Quality (TCEQ) has approved new rules on “UW Mercury-

Containing Equipment.” They became effective on August 3, 2006. There are also federal rules on UW lamps and MCE.

The UW lamps and MCE rules can be found in two places:

- Texas rules are in Title 30 of the Texas Administrative Code, Section 335.261 (30 TAC Section 335.261). To find these rules on the TCEQ web site, go to [www.tceq.state.tx.us/goto/rules](http://www.tceq.state.tx.us/goto/rules).
- Federal rules are in Title 40 of the Code of Federal Regulations, Part 273 (40 CFR Part 273). To find these rules on the Environmental Protection Agency’s (EPA) web site, go to [www.epa.gov](http://www.epa.gov).

## Disposing of UW Lamps and MCE

There are two options for disposing of UW lamps and MCE: *in a permitted hazardous waste landfill or recycling*.

State regulations prohibit disposal of hazardous waste lamps and MCE in municipal solid waste landfills. This prohibition does not apply to waste generators who qualify as *Conditionally Exempt Small-Quantity Generators* (CESQG, see “Definitions” at the end of this publication).

## Permitted Hazardous Waste Landfill

Permitted hazardous waste landfills accept properly packaged UW for disposal. For a list of permitted hazardous waste landfills in your region, see TCEQ publication GI-225, *Commercial Hazardous and Industrial Solid Waste Management Facilities*, which is available online at [www.tceq.state.tx.us/goto/publications/gi/225](http://www.tceq.state.tx.us/goto/publications/gi/225).

## Disposal Cost by Hazardous Waste Landfill

Disposal costs for lamps and MCE at a hazardous waste landfill can vary according to:

- quantity of waste generated;

- location of disposal site;
- proximity to a permitted hazardous waste landfill; and
- state and local taxes.

Estimated costs do not include packaging, transportation, or profile fees.

## Recycling

Recycling separates the toxic substances, such as mercury, from the glass, aluminum, mercury-containing devices, and other lamp components that can be used to manufacture other products. A list of recycling services is available from the TCEQ at <[www.recycletexasonline.org](http://www.recycletexasonline.org)>.

## Handling UW Lamps and MCE

### Accumulation Time Limits

If you are a UW handler, you may accumulate UW lamps and MCE for no longer than one year from the date the UW lamps and MCE are generated or received from another handler, unless you can prove that an extension is necessary to facilitate proper recovery, treatment, or disposal.

Lamps and MCE being accumulated must be clearly marked with the date you began accumulating the waste in the container. These containers must be labeled or marked to identify the type of universal waste as specified below:

1. Universal waste lamps must be labeled or marked clearly with any of the following phrases:
  - “Universal Waste—Lamps,” “Waste Lamp(s),” or “Used Lamps.”
2. Universal waste mercury-containing equipment (i.e., each device), or a container in which the equipment is contained must be labeled or marked clearly with any of the following phrases:
  - “Universal Waste—Mercury Containing Equipment,” “Waste Mercury—Containing Equipment,” or “Used Mercury—Containing Equipment.”
3. A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases:
  - “Universal Waste—Mercury Thermostat(s),”
  - “Waste Mercury Thermostat(s), or “Used Mercury Thermostat(s).”

## Categories of UW Handlers

Handlers of UW are categorized as *small-quantity handlers of universal waste (SQHUWs)* and *large-quantity handlers of universal waste (LQHUWs)*.

- **SQHUW** means a universal waste handler who accumulates less than a total of 5,000 kg of universal waste at one time.
- **LQHUW** means a universal waste handler who accumulates a total of 5,000 kg or more (calculated collectively) of universal waste at one time.

## Notification and Reporting Requirements

If you are a small-quantity handler of UW lamps or MCE, you are *not required* to notify the EPA or the TCEQ of your UW lamps and MCE handling activities.

If you are a large-quantity handler of UW lamps or MCE, you must send written notification of UW management to the TCEQ and get an EPA identification number before accumulating or exceeding the 5,000 kg storage limit.

If you already have notified the TCEQ about your other solid waste management activities, you are not required to renotify the Agency.

First-time notifiers must complete the EPA 8700-12 notification form and submit it to the TCEQ for review. For a shortcut to this form on the EPA’s Website, use this url: <[www.tceq.state.tx.us/goto/pdf/epa8700-12](http://www.tceq.state.tx.us/goto/pdf/epa8700-12)>.

Once you have completed your EPA form, submit it to:

IHW and MSW Registration Team  
 Registration and Reporting Section, MC-129  
 Permitting and Remediation Support Division  
 TCEQ  
 PO Box 13087  
 Austin TX 78711-3087  
**Phone:** 512/239-6413  
**Fax:** 512/239-6410

Once you have decided to handle hazardous lamps and MCE as universal waste, the eight-digit Texas waste code for industrial solid waste is no longer required. The lamps and MCE you handle as universal waste should not be counted toward your monthly quantity determination for purposes of determining your *hazardous waste generator* status (see “Definitions” at the end of this publication). In addition, you do not have to report the UW lamps and MCE on the Annual Waste Summary, required under 30 TAC Section 335.9.

## Record Keeping

Any time UW lamps and MCE are stored or shipped off site, records need to be kept on site.

Handlers should keep track of the following:

- the number of lamps and MCE removed from service during each calendar year;
- the storage location of the lamps and MCE; and
- shipping documents (bill of lading).

## Storing UW Lamps and MCE

A UW handler of lamps and MCE has a number of options for storage.

### **On-Site Storage Requirements for UW Lamps and MCE**

If you are a UW handler of lamps and MCE, you may store lamps and MCE at your facility, as long as each lamp and MCE remains intact. Remember the following guidelines:

- Store in a manner that will prevent breakage or damage to the lamps and MCE.
- Use signs and notices that show employees where and how to store lamps and MCE.
- Label the lamp and MCE storage area or each container with one of the following phrases:
  - “Universal Waste—Lamps,” “Waste Lamp(s),” or “Used Lamps.”
  - “Universal Waste—Mercury-Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment.”
  - “Universal Waste—Mercury Thermostat(s),” “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”
- Clearly mark each container with the date you began accumulating the waste.
- If on-site storage is not possible, transport the UW lamps and MCE to a handler or a destination facility. A manifest is not needed.

### **Off-Site Storage and Recycling of UW Lamps and MCE**

Recycling facilities that receive UW lamps and MCE are excluded from the definition of “UW handlers” (see 40 CFR Part 273.9). Under those requirements, storage before recycling is regulated [see 30 TAC Section 261.6(c)(1)].

### **Out-of-State Storage, Recycling, or Disposal of UW Lamps and MCE**

Lamps and MCE managed as UW can only be sent to another waste handler who meets the standards in 40 CFR Part 273; a destination facility meeting the

standards in 40 CFR Part 273.60-273.62; or a foreign destination.

A destination facility must comply with all current applicable requirements for hazardous waste management facilities.

## Packaging UW Lamps and MCE for Disposal

Regardless of the disposal method, UW lamps and MCE must be properly packaged to prevent breakage. You need to identify a safe storage area to ensure that your UW lamps and MCE are not accidentally broken or crushed before they are sent to a disposal facility.

When lamps and MCE are removed and replaced with new lamps and mercury-containing devices, the used lamps and MCE should be packaged in the cardboard boxes that contained the replacement lamps and MCE. The boxes containing the hazardous lamps and MCE must be clearly marked with the date you began accumulating the waste in the box. The containers should also be properly labeled with any of the following phrases:

- “Universal Waste—Lamps,” “Waste Lamp(s),” or “Used Lamps.”
- “Universal Waste—Mercury-Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment.”
- “Universal Waste—Mercury Thermostat(s),” “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”

Preprinted labels or rubber stamps that meet the U.S. Department of Transportation (DOT) regulations are recommended for high-volume disposal. **You can call the DOT toll free, 1-800-832-5660.**

## Transporting UW Lamps and Mercury-Containing Equipment for Disposal

For shipment of UW lamps and MCE in Texas and in other states where the waste is UW, you *do not need a registered transporter* with an EPA identification, and you *do not need a manifest*.

If you choose not to manage your hazardous waste as a UW, then a hazardous waste manifest to ship your lamps and MCE to a recycler or hazardous waste disposal site is required and your waste may be subject to full hazardous waste regulation, including requirements to use a certified hazardous

waste hauler, to report, to keep records, and to pay fees.

**NOTE: All off-site shipments of UW lamps and MCE must be packed, labeled, marked, and placarded according to U.S. Department of Transportation requirements, even if they are to be transported by the generator.**

### **Transporter's Storage Limit**

A UW transporter may only store the UW lamps and MCE at a UW transfer facility for 10 days or less. If a UW transporter stores UW for more than 10 days, the transporter becomes a UW handler.

## **Crushing UW Lamps**

Crushing lamps is permissible only under the controlled conditions described in 30 TAC Section 335.261(e). The crushing system must have the approval of the executive director of the TCEQ, and the selected crushing method must be carefully evaluated. To get executive director approval for crushing UW lamps, contact:

IHW Permits Section, MC-130  
Waste Permits Division  
TCEQ  
PO Box 13087  
Austin TX 78711-3087

**Phone:** 512-239-6412

**Fax:** 512-239-6383

The lamps must be crushed entirely inside a drum or storage unit so that the mercury is captured and recycled. Adequate ventilation must be provided in the space where the crushing occurs.

Intentional crushing of characteristically hazardous lamps—whether it is to physically separate, reduce in volume, or facilitate for transportation, storage, or recovery—is considered “treatment” unless the crushing device is capable of completing the recycling process and recovering the mercury as a product.

## **Definitions**

These definitions are used to determine the status of *hazardous waste generators*. To better understand the many terms, definitions, and classes of waste, see TCEQ publication RG-022, *Guidelines for the Classification and Coding of Industrial and Hazardous Wastes*, which is available online at <[www.tceq.state.tx.us/goto/publications/rg/022](http://www.tceq.state.tx.us/goto/publications/rg/022)>.

*Generator.* Any facility whose process produces: a hazardous waste or industrial Class 1 waste in excess of 100 kg (about 220 lb) per month; or acutely hazardous waste in excess of 1 kg (about 2.2 lb) per

month; or whose actions first cause a solid waste to become subject to regulation.

*Small-Quantity Generator (SQG).* You are a small-quantity generator if you generate less than 1 kg per month of acutely hazardous waste, or less than 1000 kg per month of hazardous waste on your property.

*Conditionally Exempt Small-Quantity Generator (CESQG).* You are a conditionally exempt small-quantity generator if you generate less than 1 kg per month of acutely hazardous waste, or less than 100 kg per month of hazardous waste on your property.