



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 state and federal rules on universal waste (UW).

- 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 website, go to www.tceq.texas.gov/rules/links.html.
- 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's) website, go to <https://www.epa.gov/laws-regulations>.

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.

Categories of Hazardous-Waste Generators

A *generator* is any person who produces a hazardous waste as listed or characterized in 40 CFR Part 261. Recognizing that generators produce waste in different quantities, federal and state regulations established three categories of generators:

- conditionally exempt small-quantity generators
- small-quantity generators
- large-quantity generators

The volume of hazardous waste each generator produces in a calendar month determines which regulations apply to that generator. More information about each category of generator is available from the EPA online at <https://www.epa.gov/hwgenerators/categories-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.texas.gov/publications/rg/rg-022.html.

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—light bulbs used in homes and businesses; these only qualify as UW if they contain mercury.

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.

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 CESQGs.

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 Management Facilities for Hazardous and Industrial Solid Waste*, which is available online at <www.tceq.texas.gov/publications/gi/gi-225.html>.

Disposal Cost by Hazardous-Waste Landfill

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

- the quantity of waste generated
- its location (including its proximity to a permitted hazardous-waste landfill)
- 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.

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 or storage area. These containers, or this storage area, must be labeled or marked clearly to identify the type of universal waste as specified in Table 1.

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 UW at one time.
- **LQHUW** means a universal-waste handler who accumulates a total of 5,000 kg or more of UW at one time.

Table 1. Marking to identify UW.

Item	Mark with any of these phrases
UW Lamps (box or container)	Universal Waste—Lamps Waste Lamps Used Lamps
UW equipment containing mercury or its container	Universal Waste—Mercury-Containing Equipment Waste Mercury-Containing Equipment Used Mercury-Containing Equipment
UW thermostat(s) containing mercury or container with only such thermostats inside	Universal Waste—Mercury Thermostat or Thermostats Waste Mercury Thermostat or Thermostats Used Mercury Thermostat or Thermostat

Requirements for Notification and Reporting

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 notification form EPA 8700-12 and submit it to the TCEQ for review. This form is available online at:

<www.epa.gov/sites/production/files/2016-05/documents/notification_rcra_sutitle_c_activity_instructions_forms_052016.pdf>. 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 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. 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
- shipping documents (bills 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 lamps and MCE in a manner that will prevent their breakage or damage.
- 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 as specified in Table 1.
- 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 Section 273.9). Under those requirements, storage before recycling is regulated [see 30 TAC Paragraph 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 that meets the standards in 40 CFR Part 273; a destination facility meeting the standards in 40 CFR Sections 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 as specified in Table 1.

Preprinted labels or rubber stamps that meet regulations of the U.S. Department of Transportation are recommended for high-volume disposal. **You can call the Department of Transportation toll free, 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, except to pass through states where lamps and MCE are not UW.*

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 requirements of the 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 Subsection 335.261(e). The crushing system must have the approval of the TCEQ, and the selected crushing method must be carefully evaluated. To get 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: 512-239-2007

The lamps must be crushed entirely inside a drum or storage unit so that the mercury is captured and recycled. Ventilation must be adequate 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.

Note: Filters from a lamp crusher when disposed of are subject to hazardous-waste determination and cannot be managed as UW. It is the generator’s responsibility to determine whether used filters are hazardous waste and manage them according to federal and state regulations. Whenever possible, used filter material should be sent to a recycler so that the mercury can be reclaimed.