



The Universal Waste Rule

WAC 173-303-573

Some common dangerous wastes created by a wide variety of generators are called Universal Wastes (UW). These wastes can be managed safely under less stringent regulatory requirements. The Environmental Protection Agency (EPA) adopted the federal Universal Waste Rule (UWR) in 1995 to encourage environmentally sound disposal and recycling.

Washington State has adopted four categories of universal waste including:

- Batteries,
- Lamps,
- Mercury-Containing thermostats, and
- Mercury-containing equipment.

Although pesticides are a federal UW, Washington State did not include them as a category of universal waste. Waste pesticides remain subject to the designation and full management requirements of the *Dangerous Waste Regulations*.

Through a petition process, other wastes can be added to the UWR if they meet certain criteria described in the regulation. If a petition to add other wastes is approved by Ecology, they will be added as UW in future rulemakings. Note that each state can have different Universal Waste regulations and categories of UW. A Washington state universal waste may be a hazardous waste in another state.

Significant Benefits

Benefits of managing dangerous wastes as UW include:

- Simple, streamlined waste management requirements;
- Higher accumulation quantity limits;
- Longer accumulation time limits;
- UW does not count toward waste generation totals to determine generator status;
- UW does not require a manifest when sent off-site; and
- Do not include UW on the Dangerous Waste Annual Report.

Universal Waste Categories

Batteries *(for more information see publication number 98-407.a)*

All batteries that are dangerous waste can be managed as UW including:

- ▶ Alkaline
- ▶ Mercuric-oxide
- ▶ Alkaline-manganese
- ▶ Zinc-carbon
- ▶ Zinc air
- ▶ Button cell mercuric oxide
- ▶ Silver oxide
- ▶ Lithium
- ▶ Nickel-cadmium (Ni-Cd)

Spent lead-acid batteries (typically automotive type batteries) can also be managed as UW. However, they are most often managed under the optional lead-acid battery exemption at WAC 173-303-520.

Mercury-containing equipment (MCE) *(for more information see publication number 98-407.b)*

Mercury-containing equipment is defined as a device or part of a device that contains elemental mercury necessary for its operation. Thermostats fit the definition of mercury-containing equipment and are managed basically the same way; however, labeling and record keeping requirements are different. Some examples of MCE include:

- Thermometers
- Barometers
- Manometers
- Relay and tilt switches
- Flame sensors

Some examples of material that would not be MCE include:

- Containers of elementary mercury
- Dental amalgam
- Chemical compounds containing mercury e.g., pharmaceuticals, pesticides, paints or lab chemicals
- Devices which only contain mercury in removable lamps or batteries, e.g., flat screen monitors

Mercury-containing thermostats *(for more information see publication number 98-407.b)*

Mercury-containing thermostats can be managed as UW. A thermostat is a temperature control device containing mercury in an ampule. Ampules removed from these thermostats can also be managed under the UW requirements. These requirements provide performance standards for removal of ampules, such as use of a containment system (for example, a plastic tub under the work area) to prevent spills during removal.

Lamps (for more information see publication number 98-407.c)

The following types of lamps can be managed as UW, unless you have information (such as manufacturer material safety sheets) that shows that these lamps are not dangerous waste:

- fluorescent tubes,
- compact fluorescent,
- HID lamps (mercury vapor, metal halide, high-pressure sodium),
- neon lamps; and
- any other lamps that are dangerous waste.

Universal Waste Handler Requirements

A universal waste handler is a:

- 1) Generator of UW, or
- 2) Business that receives UW from other handlers and ships it to another handler or destination facility, (see *Destination Facilities* on page 6).

There are two categories of UW handlers:

- **Small Quantity Handlers of Universal Waste (SQHUW)** can accumulate
 - Up to 11,000 pounds of all types of UW, and
 - No more than 2,200 pounds of lamps
- **Large Quantity Handlers of Universal Waste (LQHUW)** accumulate
 - More than 11,000 pounds of all types of UW, or
 - More than 2,200 pounds of lamps

All Universal Waste Handlers must:

- Label or mark waste items or containers of UW. For example, "universal waste - batteries", "waste mercury thermostats," or "universal waste mercury-containing equipment."
- Limit accumulation time to one year from the date first generated, or received from another handler.
- Manage wastes to prevent releases to the environment.
- Immediately contain spills and releases and handle residues appropriately (as solid or as dangerous waste). If residues are dangerous, manage them in accordance with all applicable requirements of the *Dangerous Waste Regulations*.
- Follow waste-specific procedures for handling UW, for example, procedures for removing mercury-containing ampules from thermostats and equipment.
- Send or take to another handler who is acting as a collection center, a destination facility, or a foreign destination.

- Ensure that the receiving facility (collection center or destination facility) will accept the load before it is sent. If rejected, the original handler must accept the waste back, or both parties may agree on a new destination.
- Follow the export notification procedures for foreign destinations.
- Provide employee training. LQHUW must ensure that employees are familiar with waste handling and emergency procedures. SQHUW must distribute basic handling and emergency information.

Additional Large Quantity Handler (LQHUW) requirements:

- Maintain basic records to track waste shipments. Records may be in the form of a log, invoice, manifest, bill of lading, or other shipping documents. They must be maintained for three years and include names, addresses, quantity and types of wastes, and shipment dates.
- Notify Ecology and obtain a RCRA Site Identification Number using a Site Identification (Site ID) Form. Handlers who anticipate accumulating 11,000 pounds or more of UW at any one time (or 2,200 pounds for lamps) must have a RCRA Site Identification Number before exceeding the accumulation limit. Note: LQHUW status is maintained through the end of the calendar year in which 11,000 pounds or more of UW is accumulated.
- File a Dangerous Waste Annual Report by March 1 of each year. The generation and management of UW do not need to be included in the Annual Report as other dangerous waste streams are. However, the appropriate boxes in Section 10B on the Site Identification Form must be checked to account for UW activities.

Prohibitions for all Handlers

Handlers may not dilute, dispose, or treat UW. Lamp crushing is an example of a prohibited UW activity. There are two exceptions to these general prohibitions:

1. *Routine battery management activities:* The following routine battery management activities are not considered treatment:
 - sorting batteries by type
 - mixing battery types in one container
 - discharging batteries
 - regenerating used batteries
 - disassembling battery packs,
 - removing batteries from discarded consumer products
 - removing electrolyte
2. *Removing mercury-containing ampules from thermostats and equipment:* The handler of the waste can remove mercury-containing ampules. Detailed directions regarding removing mercury ampules are described in the rule itself at WAC 173-303-573(9)(b)(ii) and in the Ecology focus sheet (publication number 98-407-b) on mercury-containing equipment.

Universal Waste Accumulation

The generator of UW must be able to document the length of time that their UW has accumulated. This is most commonly done by marking the collection container or individual UW item with the first date of accumulation. UW can only be accumulated for one year from that date. An exception to the one year accumulation limit is allowed if the facility needs more time to collect enough items to facilitate proper recovery, treatment, or disposal. The number of locations (points of generation) at which UW are accumulated is not limited. It is not appropriate to accumulate UW under satellite accumulation rules.

Collection Centers/Consolidation Points

Any UW handler may act as a collection center that receives UW from other UW handlers (generators), consolidates it, and sends it to a destination facility. The collection center must comply with the appropriate set of LQHUU or SQHUU requirements based on the amount of UW that is collected on-site.

A permitted treatment, storage or disposal (TSD) facility may function as a collection center for UW that it consolidates and sends on to a destination facility. In this case the TSD must comply with the appropriate LQHUU or SQHUU requirements. If the TSD is functioning as a destination facility by recycling, treating, or disposing of the UW, it would not be considered a UW handler.

Small Quantity Generator (SQG) Waste

Small quantity generators may manage their batteries, mercury-containing thermostats and equipment, and lamps under either the Universal Waste Rule or in accordance with the SQG requirements. However, if SQG or household dangerous waste batteries, thermostats, equipment, and lamps are commingled with UW from medium or large quantity generators, all commingled waste would then be considered “regulated” and must be managed as UW.

Transporter Requirements

A UW transporter is a person who is engaged in the off-site transportation of UW by air, rail, highway, or water.

- UW must be managed in compliance with all applicable U.S. Department of Transportation (DOT) regulations. Applicable DOT requirements apply if a UW meets the definition of hazardous materials under 49 CFR 171-180.
- No hazardous waste manifest is required unless the waste is transported through a state where the waste is not regulated as a UW.
- Handlers may transport their own waste and must follow transporter requirements.
- Transporters may not dispose, dilute, or treat UW.
- UW may be stored for up to ten days at UW transfer facilities (for example, a loading dock, parking area, or storage area) during the normal course of transportation.

- Releases must be contained and residues handled appropriately.
- UW must only be transported to a UW handler acting as a collection center (through prior agreement), a destination facility, or a foreign destination (export requirements must be followed).

Destination Facilities

Destination facilities are facilities that treat, dispose of, or recycle UW. They must meet all *Dangerous Waste Regulation* requirements for treatment, storage, disposal (TSD) facilities (WAC 173-303-800 through 840) or recycling facilities (WAC 173-303-120(4)(c)), except for manifesting.

Destination facilities must retain the same records for receipt of UW shipments as those kept by Large Quantity Handlers of Universal Waste (LQHUW). A destination facility may reject a shipment by shipping the waste back to the original shipper or both may agree to a new destination facility.

Universal Waste Environmental Concerns

UW contains toxic metals, with mercury and lead being the most common. Unless handled carefully during waste handling and disposal, lamps and other mercury-containing devices may break. If broken, mercury vapor can be released, potentially exposing waste handlers to inhalation of mercury vapors. Mercury that has been released into the atmosphere is eventually deposited back to the earth, where it can enter the food chain.

Some lamps may also contain lead in the glass and lead solder used in the lamp base. Lead is a toxic metal that may leach from solid waste landfills into the ground water.

Health and Environmental Hazards of Mercury

- Health risk from Inhalation or absorption
- Causes neurological disorders
- Persistent, bioaccumulative and toxic
- Major cause of contaminated fish advisories

Glossary

Several UW terms are defined in the *Dangerous Waste Regulations*, including the following: battery, destination facility, lamps, large quantity handler of UW, mercury-containing equipment, small quantity handler of UW, thermostat, UW, UW handler, UW transfer facility, and UW transporter. Although many of these terms have been defined in the above discussion, for convenience several are defined below.

"Universal waste handler" means a generator of UW; or the owner or operator of a facility, including all contiguous property, that receives UW from other UW handlers, accumulates UW, and sends UW to another UW handler, to a destination facility, or to a foreign destination.

"Small quantity handler of universal waste" means a UW handler who does not accumulate 11,000 pounds or more total of UW (batteries, thermostats, mercury-containing equipment and lamps, calculated collectively) and/or who does not accumulate more than 2,200 pounds of lamps at any time.

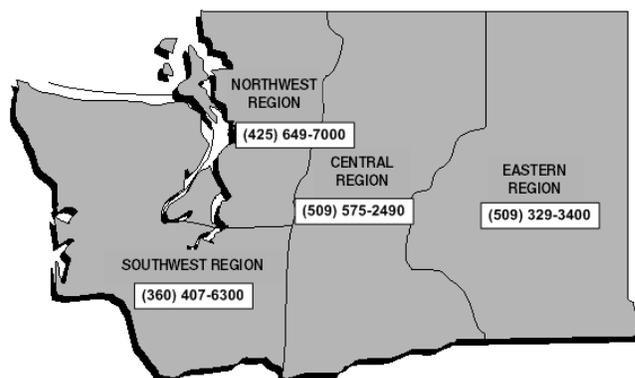
"Large quantity handler of universal waste" means a UW handler who accumulates 11,000 pounds or more total of UW (batteries, thermostats, mercury-containing equipment and lamps, calculated collectively) and/or who accumulates more than 2,200 pounds of lamps at any time. This designation as a large quantity handler of UW is retained through the end of the calendar year in which 11,000 pounds or more total of UW and/or 2,200 pounds of lamps are accumulated.

"Transporters" transport the lamps between handlers, or to a destination facility. Both SQHUW's and LQHUW's may self-transport UW.

"Destination facilities" recycle the lamps, or provide treatment, storage and disposal to a dangerous waste landfill. A facility that only accumulates UW is not considered a destination facility.

For More Information

Questions on this topic may be directed to your nearest regional office Dangerous Waste Specialist.



If you need this information in an alternate format, please call the Hazardous Waste and Toxics Reduction Program at 360-407-6700. If you are a person with a speech or hearing impairment, call 711, or 800-833-6388 for TTY.