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State of California



California  
Environmental  
Protection Agency

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# Managing Universal Waste in California

## Rules for Managing Some Common Wastes

This fact sheet explains California's "Universal Waste Rule" – a set of regulations that simplify how we can manage some very common hazardous wastes.

## What are universal wastes?

Common examples of Universal Wastes include Televisions, Computers, Computer Monitors, Batteries, and Fluorescent Lamps. Universal wastes are hazardous upon disposal but pose a lower risk to people and the environment than other hazardous wastes. State and Federal regulations identify which unwanted products are universal wastes and provide simple rules for handling and recycling of them. These regulations are found in the California Code of Regulations, title 22, division 4.5, chapter 23 (all citations in this fact sheet refer to the California Code of Regulations, title 22, division 4.5, unless otherwise indicated.)

Universal wastes are generated by a wide variety of people and businesses. The universal waste rule allows people to handle and transport universal waste under a simple set of rules that are appropriate for the risks posed by the wastes but still protect people and the environment.

In general, the person who decides to discard something is responsible for determining if it is a hazardous waste based on the following four characteristics.

### The Four Characteristics of Hazardous Waste

1. Toxicity (poisonous)
2. Reactivity (can explode)
3. Ignitability (can catch fire)
4. Corrosivity (acidic or alkaline; can cause burns)

### Hazardous Waste

- Most are generated by industrial businesses
- Subject to detailed management standards

### Universal Wastes

- Lower risk than other hazardous wastes
- Generated by a wide variety of people
- Reduced management requirements

### Note:

Wastes that do not contain hazardous substances are not universal wastes even if they are similar in type.



## What items are designated as universal wastes?

The following items are universal wastes when they are no longer useful or are discarded:

**1. Cathode ray tubes (CRTs).** Waste (CRTs), also known as picture tubes, are found in devices such as televisions and computer monitors.

**2. Batteries.** Universal waste batteries include rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, small sealed lead acid batteries (burglar alarm and emergency light batteries), most alkaline batteries, carbon-zinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste.

*NOTE: Spent automotive-type lead acid storage batteries are not universal waste. They are hazardous wastes that are managed under a different set of regulatory requirements (see [article 7](#) of chapter 16).*

**3. Lamps.** Universal waste lamps include fluorescent tubes and bulbs, high intensity discharge lamps, sodium vapor lamps, and any other type of lamps that exhibit a characteristic of a hazardous waste. Also, any electric lamp that contains added mercury, whether or not it exhibits a hazardous waste characteristic, is a universal waste.

**4. Electronic devices.** These include any electronic equipment without a CRT, such as cell phones and telephones, computer CPUs and printers, VCRs and portable DVD players that exhibits a hazardous waste characteristic

**5. Mercury thermostats.** These thermostats contain small glass capsules with mercury, a shiny liquid metal, to make electrical contact. (Modern electronic thermostats do not contain mercury.)

**6. Non-empty aerosol cans.** These are universal wastes if they contain an ignitable or toxic propellant or if the contents exhibit any hazardous waste characteristic. For more information, see our fact sheet [“SB1158 Designates Aerosol Cans as “Universal Waste.””](#)

**7. Mercury switches.** Two different types of mercury switches are universal wastes:

- Motor vehicle switches that contain mercury. Any mercury switch that is removed from a vehicle is a universal waste. When they are to be crushed for scrap, vehicles that contain mercury light switches are also universal waste until the mercury light switches are removed.
- Non-automotive mercury switches and products that contain them. These switches include thermostats and tip switches in portable heaters, washing machine out-of-balance switches, silent wall switches, and other mercury-containing switches and products containing them. All discarded products that contain mercury switches are universal wastes.

**8. Mercury thermometers,** including fever thermometers.

**9. Pressure or vacuum gauges** that contain mercury such as U-tube manometers, barometers, and sphygmomanometers (blood pressure meters.)

**10. Dilators and weighted tubing.** These medical devices contain mercury.

**11. Rubber flooring** that contains mercury. Some older gymnasium floors that were poured in place to form indoor tracks and gymnastic areas contain mercury.

**12. Mercury-Added Novelties.** This category includes practical joke items, figurines, jewelry, toys, games, cards, ornaments, yard statues and figures, candles, holiday decorations, and footwear that contain mercury or mercury batteries. Effective January 1, 2003, the California Mercury Reduction Act banned sale of mercury-added novelties in this state, but some people still have them in their homes.

**13. Mercury gas flow regulators.** These older gas flow regulators are managed exclusively by natural gas utilities.

**14. Counterweights and dampers**, including devices that use mercury's high density to dampen shaking on hunting bows and snow skis or to absorb recoil on shotguns.

**15. Dental amalgam tooth filling materials** including waste amalgam, bits and pieces from chair side traps, and spent wastewater filters.

**16. Gauges.** Vacuum and pressure gauges that contain mercury, including blood pressure gauges, barometers, and manometers

### Do these regulations apply to me?

With two exceptions discussed below, anyone who generates or handles universal waste must comply with all parts of these regulations. Exemptions that temporarily allowed people to dispose of some universal wastes in the regular trash have ended. Nobody may dispose any type of universal waste in the trash in California.

**Households:** Are not exempt from the Universal Waste Rule. Households must recycle their universal wastes and are prohibited from disposing them in the trash.

**Households should check the following websites for a location nearest them to take their wastes.**

- CIWMB database
- eRecycle.org
- Earth911.org

**Conditionally exempt small quantity universal waste generators (CESQUWG):** Small commercial hazardous waste generators also only have to follow the recycling and hazardous waste disposal parts of the universal waste rule. However, they are not subject to rules for training, accumulation time, recordkeeping, or labeling.

For a business to qualify as a CESQUWG, it must

- Generate less than 100 kilograms (220 pounds) of total federally regulated hazardous waste, including all universal

wastes (except CRTs) in any calendar month; and

- Generate less than 1 kilogram (2.2 pounds) of any waste identified as an acutely hazardous waste in chapter 11; and

### Where may I send universal wastes?

All generators must send their universal waste to one of three types of destinations. A generator may *not* send universal waste to a municipal solid waste (garbage) landfill or to a non-hazardous waste recycling center. ***Disposal at any unauthorized disposal site such as roadsides or ditches is illegal and a serious crime as well as a serious environmental threat.***

Acceptable destinations include:

- another location for consolidation or storage:
  - a business with many locations can designate one location as the consolidation point for the universal wastes from all of its locations
  - universal wastes may be sent to a business that specializes in collecting, consolidating, and shipping universal wastes to a destination facility
- a "destination facility" (generally a hazardous waste recycling facility – see discussion below)
- a foreign destination that is authorized to handle the universal waste.

Many universal wastes must be recycled in order to be managed under the simple, streamlined universal waste handler standards. The universal wastes listed below must either be sent directly to an authorized recycling facility or to a universal waste consolidator for shipment to an authorized recycling facility.

Universal wastes that must be recycled:

- cathode ray tubes (TV and computer glass)
- lamps
- mercury thermometers
- mercury switches
- mercury gauges
- dilators and weighted tubing
- gas flow regulators
- counterweights and dampers

If you do not plan to recycle these wastes, you must manage them as hazardous waste rather than as universal waste. This includes notifying DTSC, using a manifest and a registered hazardous waste hauler, complying with shorter accumulation times, and shipping only to an authorized destination facility.

### What rules must I follow to manage my universal wastes?

Unless you are a household or a conditionally-exempt small quantity universal waste generator, you must follow the rules for either *small quantity handlers of universal waste* or for *large quantity handlers of universal waste*.

Most households and businesses are small quantity handlers of universal waste. The rules they follow are in sections 66273.10 through 66273.21. A summary of the requirements is below; however, small quantity handlers of universal waste must comply with the full regulations, not just this short summary.

If you are a small quantity handler of universal waste:

- Send all universal waste to a facility authorized to collect, recycle or dispose of universal waste.
- Like everyone else, you can **not** dispose of universal waste in the trash

- Do not store universal waste for longer than one year after generating or receiving the waste. If you think you need more time, contact your Certified Unified Program Agency (CUPA) well before your oldest universal waste will be held for one year.
- Document the length of time you have accumulated universal waste from the date you accepted it from someone else, discarded it yourself after it was “used up,” or decided to discard it. The regulations contain several options for documenting accumulation time.
- Label or mark universal wastes, or containers or packages of universal waste, to identify their types. The regulations provide several options for labeling. The purpose of labeling is to ensure that emergency response personnel or an inspector can identify the universal waste.
- Do not “treat” universal waste except when cleaning up releases or managing specific wastes as provided in the regulations (for example, removing mercury ampoules from thermostats or removing electrolyte from batteries) (Treatment includes any activity that changes the characteristics of the waste.)
- Clean up any releases such as leaking batteries or broken fluorescent tubes. Repackage the damaged universal waste and manage it as universal waste. Manage any other materials generated, such as cleanup supplies and contaminated soil, as hazardous wastes if they are identified as hazardous waste.
- Train employees in proper universal waste management including handling, packaging, storing and labeling the universal waste, as well as how to respond to releases. This training may be accomplished by simply giving employees written instructions or posting these instructions in the universal waste management areas of the building.

- Determine whether the universal waste is a hazardous material under the United States Department of Transportation (U.S. DOT) rules. For U.S. DOT hazardous materials, properly mark the packaging and placard the transportation vehicle. The applicable U.S. DOT regulations are in Title 49 Code of Federal Regulations, Parts 171 through 180.
- Prepare proper shipping papers such as a bill of lading. A Uniform Hazardous Waste Manifest is not necessary for universal waste shipments.
- You may transport universal waste in your own vehicle or may use any common carrier allowed by U.S. DOT and California law to transport non-hazardous waste. You are not required to use a registered hazardous waste hauler to transport universal waste.
- Ship the universal waste to another small quantity handler of universal waste, a large quantity handler of universal waste, or a destination facility. When shipping or receiving universal waste, specific rules apply regarding accepting shipments containing hazardous wastes that are not universal wastes and shipments that are rejected.
- Keep records of all shipments and receipts of universal waste for three years.
- When sending universal waste outside the country, comply with regulations addressing universal waste export.

**A large quantity handler** of universal waste is a person who accumulates 5,000 kilograms (5.5 tons conversion factor) of universal waste or more at one place at one time. A large quantity handler is required to provide more comprehensive training to employees than a small quantity handler and must obtain an EPA identification number. Generally, only a universal waste collection business will accumulate that much universal waste at once.

## **Disclaimer**

This fact sheet does not replace or supersede statutes or regulations. All universal waste handlers must follow the hazardous waste control statutes and regulations, including the universal waste regulations, and must comply with the detailed standards applicable to their activities.