



Department of
Toxic Substances
Control

Providing the
highest level of
safety,
protecting
public health
and the
environment
from toxic harm



State of California



California
Environmental
Protection Agency

Fact Sheet, July 2008

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.



Our mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

Fact Sheet, January 2010

Universal Waste Fact Sheet

California's Universal Waste Rule allows individuals and businesses to transport, handle and recycle certain common hazardous wastes, termed universal wastes, in a manner that differs from the requirements for most hazardous wastes. The more relaxed requirements for managing universal wastes were adopted to ensure that they are managed safely and are not disposed of in the trash.

What are Universal Wastes?

Universal wastes are hazardous wastes that are widely produced by households and many different types of businesses. Universal wastes include televisions, computers and other electronic devices as well as batteries, fluorescent lamps, mercury thermostats, and other mercury containing equipment, among others.

The hazardous waste regulations (Cal. Code Regs, tit. 22, div. 4.5, ch. 11 section 66261.9) identify seven categories of hazardous wastes that can be managed as universal wastes. Any unwanted item that falls within one of these waste streams can be handled, transported and recycled following the simple requirements set forth in the universal waste regulations (UWR) (Cal. Code Regs, tit. 22, div. 4.5, ch. 23)

Universal wastes are:

1. Electronic devices: Includes any electronic device that is a hazardous waste (with or without a Cathode Ray Tube (CRT)), including televisions, computer monitors, cell phones, VCRs, computer CPUs and portable DVD players.
2. Batteries: Most household-type batteries, including rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, alkaline batteries and other batteries that exhibit a characteristic of a hazardous waste
3. Electric lamps: Fluorescent tubes and bulbs, high intensity discharge lamps, sodium vapor lamps and electric lamps that contain added mercury, as well as any other lamp that exhibits a characteristic of a hazardous waste. (e.g., lead).
4. Mercury-containing equipment: Thermostats, mercury switches, mercury thermometers, pressure or vacuum gauges, dilators and weighted tubing, mercury rubber flooring, mercury gas flow regulators, dental amalgams, counterweights, dampers and mercury added novelties such as jewelry, ornaments and footwear.
5. CRTs: The glass picture tubes removed from devices such as televisions and computer monitors.
6. CRT glass: A cathode ray tube that has been accidently broken or processed for recycling.
7. Non-empty aerosol cans

Universal Wastes may not be disposed of in the trash!



Our mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

Regulatory Standards for Universal Waste

The UWR has separate requirements for each of the three types of regulated entities:

1. Universal waste handlers
2. Universal waste transporters
3. Destination Facilities

Universal Waste Handlers

A universal waste handler is a generator of universal waste or the owner or operator of a facility that receives universal waste from another universal waste handler, accumulates universal waste, and sends universal waste to another universal waste handler, a facility that accepts hazardous waste, or a foreign country.

A universal waste handler may be:

1. A person (e.g., a household or business) who generates universal waste but does not accept universal waste from others
2. A person who accepts and accumulates universal waste generated by others at his or her facility
3. A person who accepts universal waste generated by others and conducts certain treatment and recycling activities allowed by the universal waste handler regulations

Management Requirements for Universal Waste Handlers (Cal. Code Regs, tit. 22, sections 66273.30-66273.39; additional requirements for handlers who conduct authorized treatment, Cal. Code Regs, tit. 22, sections 66273.70-.77)

- Do not dispose of universal waste or treat universal waste except as provided for in the regulations
- Notify DTSC and/or obtain an EPA identification number
- Use proper containment—non-leaking, compatible containers
- Segregate universal waste in distinct areas
- Determine if materials generated when handling/recycling are hazardous wastes
- Comply with applicable requirements for hazardous waste
- If applicable, comply with zoning requirements when storing universal wastes
- Have spill kits readily available to deal with accidental spills (mercury-containing devices)
- Use proper labeling and markings
- Accumulate universal waste no longer than one year



DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Our mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

- Provide personnel training to personnel who manage universal waste, or who supervise personnel who manage universal waste and keep training records
- Respond to releases of universal waste or its contents; determine if spill residuals are hazardous waste
- Track shipments by keeping records of what was received and shipped (name, address, quantities) for three years

Universal Waste Transporters

A universal waste transporter is a person engaged in the offsite transportation of universal waste by air, rail, highway or water. A universal waste transporter may be:

1. Universal waste handler carrying universal waste in his or her own vehicle
2. A package shipping service (e.g., US Postal Service; FedEx, UPS)
3. A commercial carrier (e.g., a trucking company, a hauler specializing in universal waste, or the operator of a destination facility that offers a universal waste pick-up service)
 - If you do not own or operate a facility that accepts, generates, accumulates, or stores universal waste, but you pick up and transport universal waste (e.g., electronic devices from office complexes) to a recycling or collection facility, you are a universal waste transporter. Universal waste transporters do not need to notify DTSC or submit annual reports for their transportation activities.
 - Universal waste transporters may store universal waste at a transfer facility for up to 10 days (depending on local zoning). A universal waste transporter who exceeds this limit is considered a universal waste handler and is subject to the handler requirements summarized above.

Destination Facilities

A destination facility is a fully-regulated hazardous waste facility that treats, disposes of, or recycles a specific type of universal waste. Examples of destination facilities are hazardous waste recycling facilities and hazardous waste landfills. A destination facility shall manage the universal waste in accordance with the requirements and conditions in its hazardous waste facility permit, unless authorized by section 66273.60 of title 22 of the California Code of Regulations to manage it pursuant to the reduced requirements applicable to universal waste handlers. A destination facility is required to follow certain rules for shipping universal wastes off-site and for rejecting shipments that contain universal waste and is required to keep records of all shipments received for three years. A facility that only accepts and accumulates universal waste is not a destination facility. Such a facility is regulated as a universal waste handler.



Our mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

Households and Conditionally Exempt Small Quantity Universal Waste Generators (CESQUWG)

Two categories of universal waste handlers—households and CESQUWGs—are exempt from most of the requirements of the universal waste regulations provided they comply with certain conditions. Handlers who qualify for these exemptions are not required:

- To obtain an EPA ID number or otherwise notify DTSC;
- To keep records of shipments or provide annual reports to DTSC; or
- To label their universal waste.

A household is defined to include a single detached residence (e.g., a house) or a single unit of a multiple residence unit (e.g., an apartment or condominium). Households that generate hazardous wastes other than universal wastes (e.g., paints and motor oil) can visit DTSC's household hazardous waste Web page (<http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/HHW.cfm>) for information on how to properly dispose of them.

A Conditionally Exempt Small Quantity Universal Waste Generator (CESQUWG) is a universal waste generator who produces less than 100 kilograms (220 pounds) of RCRA hazardous waste, including universal waste that is RCRA universal waste and less than 1 kilogram of acutely hazardous waste in a calendar month. (RCRA hazardous waste is hazardous waste that is regulated under the hazardous waste regulations adopted by the U.S. Environmental Protections Agency.)

Pursuant to section 66273.8 of title 22 of the California Code of Regulations, a generator who meets the definition of a household or a CESQUWG is exempt from universal waste handler requirements provided he or she:

- 1) Does not dispose of universal waste;
- 2) Relinquishes universal waste only to another universal waste handler, a universal waste transporter, a destination facility, or a curbside household hazardous waste collection program; and
- 3) Does not conduct treatment of universal waste, except for limited activities enumerated in the regulations (e.g., removing batteries, light bulbs, or mercury switches). This exemption applies only to universal waste generated by the household (e.g. light bulbs, computers, televisions, thermostats, cell phones, etc.), not to universal waste accepted from other people.

Where can I send universal wastes?

A handler may not send universal waste to a municipal solid waste (garbage) landfill or a non-hazardous waste recycling center. All handlers of universal waste must relinquish their universal waste to one of the following:



DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Our mission is to provide the highest level of safety, and to protect public health and the environment from toxic harm.

1. Another handler (typically a business that specializes in collecting, storing, accumulating and shipping universal wastes). Examples:
 - A household hazardous waste facility
 - A “Take-it-Back Partner” such as a retailer or manufacturer
 - A collection event
2. A universal waste transporter. Examples:
 - A curbside HHW collection program
 - A package service (e.g., postal service, UPS)
 - A destination facility that offers a pick-up service
3. A universal waste destination facility (generally, a facility with a permit to treat, store, or dispose of hazardous waste).

Search engines available to find locations accepting universal waste in your area:
E-Recycle.org; Earth911.org; CalRecycle database; DTSC map; HHW list;

*For more information, see DTSC’s Universal Waste Web page at:
<http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/index.cfm>*

Contact your DTSC regulatory assistance officer at: (800) 728-6942
