

Fact Sheet  
June 2003

# Managing Universal Waste in California



## RULES FOR MANAGING SOME COMMON WASTES

*DTSC is one of six Boards and Departments within the California Environmental Protection Agency. DTSC's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.*

State of California



California  
Environmental  
Protection Agency



### Introduction

New laws adopted since 2000 created California's "Universal Waste Rule" to simplify how we manage many common hazardous wastes. The Department of Toxic Substances Control (DTSC) has developed this fact sheet to provide information about these laws.

### What are universal wastes?

Universal wastes are hazardous wastes that are more common and pose a lower risk to people and the environment than other hazardous wastes. Federal and State regulations identify universal wastes and provide simple rules for handling, recycling, and disposing of them. The regulations, called the "Universal Waste Rule," are 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.

All universal wastes are hazardous wastes and, without the new rules, they would have to be managed under the same stringent standards as other hazardous wastes. Also, universal wastes are generated by a wide variety of people rather than by the industrial businesses that primarily generate other hazardous wastes.

Not all waste products of a particular type are hazardous waste and universal waste. For example, waste thermometers that contain mercury are universal wastes but waste thermometers that contain alcohol are neither hazardous waste nor universal waste.

### Hazardous Wastes

- 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 to universal wastes.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web site at [www.dtsc.ca.gov](http://www.dtsc.ca.gov).*

## What items are designated as universal wastes?

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

1. **Mercury thermostats.** These thermostats contain small glass capsules of mercury, a shiny liquid metal, to make electrical contact. Modern electronic thermostats do not contain mercury.
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 (§§66261.20 through 66261.24).

*NOTE: Spent automotive-type lead acid storage batteries are not universal waste. They are hazardous wastes that require management as specified in chapter 16, article 7.*

3. **Lamps.** Universal waste lamps include fluorescent tubes, high intensity discharge lamps, sodium vapor lamps, and any other lamps that exhibit a characteristic of a hazardous waste. Some fluorescent tubes will not be considered hazardous waste, or universal waste, until 2004. For more information regarding which tubes are currently considered hazardous and non-hazardous, call the information numbers listed at the end of this document.

### The Four Hazardous Waste Characteristics

*An unwanted material may be considered hazardous if it has any of the following properties:*

Toxicity (poisonous)  
Reactivity (can explode)  
Ignitability (can catch fire)  
Corrosivity (acidic or alkaline)

4. **Non-empty aerosol cans.** The Legislature added non-empty aerosol cans to the list of universal wastes in 2001. This fact sheet does not address management of non-empty aerosol cans. For information, see Health and Safety Code section 25201.16.
5. **Mercury switches.** Two different types of mercury switches are universal wastes:
  - Motor vehicle light switches that contain mercury. Health and Safety Code section 25214.6 designates motor vehicle light switches (automatic hood and trunk light switches) containing mercury as universal wastes once they are removed from vehicles. As of January 2005, vehicles that contain the switches will also be considered hazardous waste until the mercury light switches are removed.
  - Non-automotive mercury switches and products that contain them, when they are recycled as scrap metal. 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. As of February 9, 2006, all discarded products that contain mercury switches will be universal wastes.
6. **Mercury thermometers,** including fever thermometers.
7. **Pressure or vacuum gauges** that contain mercury such as U tube manometers, barometers, and sphygmomanometers (blood pressure meters.)
8. **Dilators and weighted tubing.** These medical devices contain mercury.
9. **Rubber flooring** that contains mercury. Older gymnasium floors that were poured in place to form indoor tracks and gymnastic areas frequently contain mercury.
10. **Novelties** that contain mercury or mercury batteries such as some singing greeting cards, flashing athletic shoes, jewelry, and other devices. As of January 1, 2004, all novelties with added mercury are considered hazardous and universal wastes.

11. **Mercury gas flow regulators.** These older gas flow regulators are managed exclusively by natural gas utilities.
12. **Counterweights and dampers,** including devices that use pouches of high density mercury to dampen shaking on hunting bows and snow skis or to absorb recoil on shotguns.
13. **Dental amalgam** tooth filling materials including waste amalgam, bits and pieces from chairside traps, and spent wastewater filters.
14. **Consumer electronic devices.** Electronics that exhibit hazardous characteristics such as some cell phones, game consoles, and computers (ch. 11, art. 3).
15. **Cathode ray tubes.** Waste cathode ray tubes (CRTs), such as television picture tubes and non-flat panel computer monitors, are universal wastes with special management standards. This fact sheet does not address managing waste CRTs; see the DTSC fact sheet entitled [Managing Waste Cathode Ray Tubes](http://www.dtsc.ca.gov/LawsRegulationsPolicies/CRTs/index.html) at: [www.dtsc.ca.gov/LawsRegulationsPolicies/CRTs/index.html](http://www.dtsc.ca.gov/LawsRegulationsPolicies/CRTs/index.html).
16. **Gauges.** Vacuum and pressure gauges that contain mercury, including blood pressure gauges, barometers, and manometers

### Do these regulations apply to me?

If you generate universal wastes, you must comply with these regulations. However, two exemptions temporarily allow people to dispose of some universal wastes in the regular trash. *These exemptions only apply to waste lamps, thermostats, batteries, and consumer electronic devices.*

**Households:** Universal waste batteries, thermostats, lamps, and consumer electronic devices generated by people maintaining their private household are exempt. They may be disposed of in the trash unless forbidden by the local solid waste authorities. This exemption will end on February 8, 2006.

**Conditionally exempt small quantity universal waste generators:** The smallest commercial hazardous waste generators may temporarily dispose of their universal waste batteries, thermostats, lamps, and consumer electronic devices in the trash, unless forbidden by the local solid waste authorities. These exemptions

will end on February 8, 2006. To qualify for this exemption, you must meet the following conditions:

From February 9, 2002 until February 8, 2004:

- 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
- Remain in compliance with Code of Federal Regulations, title 40, section 261.5.

From February 9, 2004 until February 8, 2006:

- You must meet the above requirements, and
- During this period, you may dispose of no more than 30 universal waste lamps and no more than 20 pounds of universal waste batteries in the regular trash in any calendar month. Mercury thermostats must be recycled or disposed of as hazardous waste.

## Temporary and Conditional Universal Waste Exemptions

*are in place for batteries, thermostats, lamps, and consumer electronic devices **only**.*

*These exemptions do not apply to CRTs (TV and computer glass), non-empty aerosol cans, or most universal wastes containing mercury.*

Household universal waste is exempt until February 2006.



Small business universal waste is exempt until 2006, if certain conditions are met.



**Permanent Household and Conditionally Exempt Small Quantity Universal Waste Generator exemption:** Households and the smallest commercial universal waste generators only have to follow the recycling and hazardous waste disposal parts of the universal waste rule. They are not subject to rules for training, accumulation, packaging, their universal wastes.

### Where may I send universal wastes?

Many universal wastes must be recycled. Except for households and small generators that are temporarily exempt, everyone must send the universal wastes listed below 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:

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

If you do not recycle these wastes, then 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.

Universal Waste Category	Effective	Recycling Required?	Hazard
Novelty items with mercury	2004	No	Mercury
Lamps with mercury	Most: Current All: 2004	Yes	Mercury
Vehicle light switches with mercury	2005	Yes	Mercury
Non-automotive mercury switches	2006	Yes	Mercury
Mercury thermostats	Current	No	Mercury
Mercury thermometers	Current	Yes	Mercury
Dental amalgam	Current	Yes	Mercury
Rubber flooring	Current	No	Mercury
Pressure or vacuum gauges	Current	Yes	Mercury
Dilators and weighted tubing	Current	Yes	Mercury
Gas flow regulators	Current	Yes	Mercury
Counterweights and dampers	Current	Yes	Mercury
Cathode ray tubes	Current	Yes	Lead
Consumer electronic devices	Current	No	Lead and other metals
Waste batteries	Current	No	Toxic and corrosive
Aerosol cans (non-empty)	Current	No	Reactive, Toxic and Ignitable

Send all other universal wastes to one of three types of destinations:

- 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 hazardous waste recycling facility
- a hazardous waste land disposal facility for universal wastes that are not required to be recycled (see table on page 4.)

Unless you are exempt from these rules, you 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.*

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

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

Large quantity handlers of universal waste have more than 5,000 kilograms (5.5 tons) of universal waste at one place at one time. They must follow more stringent standards for handling their universal waste. Generally, only a universal waste collection business will accumulate that much universal waste at once.

Most individuals 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.

- Do not dispose of universal waste to the trash
- Do not accumulate more than 5,000 kilograms of universal waste at any one time.
- You do not need a hazardous waste identification number.
- 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 (§66273.15).
- 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 (§66273.15(c)). 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 (§66273.14).
- Generally, you may not treat universal waste except when cleaning up releases or managing specific wastes as provided in section 66273.13 (for example, removing mercury ampules from thermostats or removing electrolyte from batteries) (§66273.11). 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 (§§66273.13 and 66273.17).
- Train employees in proper universal waste management including handling, packaging, storing and labeling the universal waste, as well as how to respond to releases (§66273.16). 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 (§66273.18).
- Prepare proper shipping papers such as a bill of lading. A Uniform Hazardous Waste Manifest is not necessary for universal waste shipments (§66273.18).
- 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 (§66273.18).
- 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 (§66273.18).
- Keep records of all shipments and receipts of universal waste for three years (§66273.19).
- When sending universal waste outside the country, comply with regulations addressing universal waste export (§66273.20).

### 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.

**For further information about managing universal waste, please contact DTSC's regional Public and Business Liaisons at (800) 72TOXIC (1-800-728-6942) or visit [www.dtsc.ca.gov](http://www.dtsc.ca.gov).**

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