



Department of  
Toxic Substances  
Control

*The Mission of the  
Department of  
Toxic Substances  
Control is to  
provide the highest  
level of safety, and  
to protect public  
health and the  
environment from  
toxic harm.*



State of California



California  
Environmental  
Protection Agency

## Fact Sheet

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# Mercury Thermostat Collection Act of 2008

## Throwing away thermostats that contain mercury is against the law.

On January 1, 2006, the State of California banned the sale of new thermostats containing mercury, or what are known as mercury-added thermostats. Additionally, California's Mercury Thermostat Collection Act of 2008, Assembly Bill 2347 (Ruskin), requires manufacturers to establish a collection and recycling program for out-of-service mercury-added thermostats. Manufacturers can operate these programs individually or collaboratively.

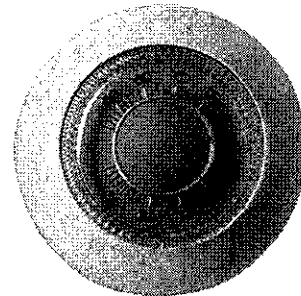
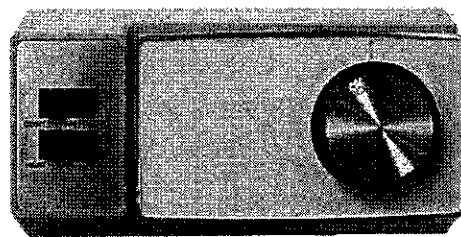
The Mercury Thermostat Collection Act of 2008 provides a convenient, cost-free way for consumers, contractors, and technicians to collect, recycle, and ensure the safe and environmentally-sound management of mercury-added thermostats.

The complete text of the law is online at:

[http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab\\_2301-2350/ab\\_2347\\_bill\\_20080929\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_2301-2350/ab_2347_bill_20080929_chaptered.pdf)

### Examples of mercury-added thermostats:

Other styles may vary.



### Why is it important to collect and recycle mercury-added thermostats?

In the past, thermostats contained the hazardous metal mercury. Mercury released into the atmosphere can settle in aquatic ecosystems, where it converts to methylmercury, an especially toxic form. Methylmercury accumulates in fish and humans.

### Who must comply with this law?

The Mercury Thermostat Collection Act of 2008 requires manufacturers to establish a collection and recycling program. The bill defines "manufacturer" as "a business concern that owns or owned a name brand of mercury-added thermostats sold in this state before January 1, 2006."



### **What are the requirements of this law?**

The requirements for all who are affected by the new law can be found on the California Department of Toxic Substances Control (DTSC) Web site at:

<http://www.dtsc.ca.gov/thermostats>

Manufacturer requirements:

[http://www.dtsc.ca.gov/HazardousWaste/upload/Mercury\\_Thermostat\\_Manufacturer.pdf](http://www.dtsc.ca.gov/HazardousWaste/upload/Mercury_Thermostat_Manufacturer.pdf)

Wholesaler requirements:

[http://www.dtsc.ca.gov/HazardousWaste/upload/Mercury\\_Thermostat\\_Wholesaler.pdf](http://www.dtsc.ca.gov/HazardousWaste/upload/Mercury_Thermostat_Wholesaler.pdf)

Retailer requirements:

[http://www.dtsc.ca.gov/HazardousWaste/upload/Mercury\\_Thermostat\\_Retailer.pdf](http://www.dtsc.ca.gov/HazardousWaste/upload/Mercury_Thermostat_Retailer.pdf)

Contractor and demolition requirements:

<http://www.dtsc.ca.gov/HazardousWaste/upload/C-D-requirements.pdf>

### **How will DTSC determine if the law is working?**

Beginning July 1, 2009, and every January 1 and July 1 thereafter, DTSC is required to post on its web site a list of all manufacturers failing to comply with this law.

DTSC will receive an annual report from manufacturers covering the one-year period ending December 31 of the previous calendar year. These reports, due April 1 of each year, must include the following:

1. The number of out-of-service mercury-added thermostats collected in California during the previous calendar year.
2. The estimated total amount of mercury contained in the collected out-of-service mercury-added thermostats.
3. Starting April 1, 2013, a comparison of the manufacturer's collection program results with the collection rates prescribed by the regulation.

### **What can I do to collect thermostats and ensure they are properly recycled?**

Mercury thermostats are regulated as universal waste in California, which means collecting, consolidating, and transporting them is subject to simple rules.

- A local government that operates a household hazardous waste collection program can obtain a free collection bin from thermostat manufacturers.
- A wholesaler of HVAC equipment can also obtain a collection bin from manufacturers for a nominal \$25 fee.
- Contractors, service technicians and demolishers can contact appropriate collection centers.
- Consumers can contact local household hazardous waste programs. A list, by county, is available at: [http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/upload/HHW\\_Llist\\_PUBLIC2.pdf](http://www.dtsc.ca.gov/HazardousWaste/UniversalWaste/upload/HHW_Llist_PUBLIC2.pdf).

For more information about regulatory requirements, please contact DTSC's Regulatory Assistance Officers at 800-72-TOXIC (800-728-6942), or visit DTSC's Web site at [www.dtsc.ca.gov/thermostats](http://www.dtsc.ca.gov/thermostats)

Amend Appendix XII of the California Code of Regulations, title 22, division 4.5, chapter 11. Insert, in numerical and in alphabetical order within the existing section to read as follows:

(a) Subdivisions (b) and (c) of this appendix establish the California Hazardous Waste Code Numbers assigned to wastes which have been identified as hazardous wastes pursuant to the characteristics of hazardous waste as set forth in article 3 of this chapter or pursuant to the lists of hazardous wastes in article 4 of this chapter. These Waste Code Numbers shall be used in complying with the notification requirements of Health and Safety Code section 25153.6 and, where applicable, in the recordkeeping and reporting requirements under chapters 12 through 15, 18, and 20 of this division.

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(b) List of California Hazardous Waste Codes arranged in numerical order:

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614 Treated wood waste

615 Out-of-service mercury-added thermostats

(5) California Restricted Wastes:

711 Liquids with cyanides  $\geq$  1000 mg/l

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(c) List of California Hazardous Waste Codes arranged alphabetically within each numbered category in this subdivision:

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551 Laboratory waste chemicals

615 Out-of-service mercury-added thermostats

512 Other empty containers 30 gallons or more

541 Photochemical/photoprocessing waste

(5) California Restricted Wastes:

721 Liquids with arsenic  $>$  500 mg/l

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NOTE: Authority cited: Sections 25150 and 58012, Health and Safety Code. Reference: Sections 25117.9, 25122.7, and 25150, Health and Safety Code.

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## Chapter 35 Mercury Thermostat Collection Rate Requirements

### §67388.1 Scope

- (a) This chapter establishes the performance requirements that specify collection rates and a methodology for the calculation of out-of-service mercury-added thermostats becoming waste annually.
- (b) Nothing in this chapter is a limitation on the power of any other governmental agency to adopt or enforce additional requirements related to the management of the mercury-added thermostat materials.

Authority: Section 58012 and 25150, Health and Safety Code. Reference: Section 25214.8.17, Health and Safety Code.

### §67388.2 Applicability

Effective January 1, 2012 the requirements of this chapter shall apply to

- (a) Manufacturers as described in section 67388.3.
- (b) HVAC contractors as described in section 67388.3.
- (c) Demolition contractors as described in section 67388.3.

Authority: Section 58012 and 25150, Health and Safety Code. Reference: Section 25214.8.17, Health and Safety Code.

### §67388.3 Definitions

The definitions set forth in section 66260.10 of this division shall apply unless otherwise defined. The following terms shall apply to the definitions used in this chapter. The definitions of the following terms are stated the Health and Safety Code sections unless otherwise noted.

"Collection Rate" means the number of out-of-service mercury added thermostats collected, as reported by a manufacturer or group of manufacturers divided by the calculated number of out of service mercury added thermostats becoming waste annually, as defined in section 67388.4, expressed as a percentage.

"Demolition contractor" has the meaning of a C-21 contractor as defined in Cal. Code Regs., title 16, section 832.21.

"Household hazardous waste collection facility (HHWCF)" has the meaning of a facility as defined in Health and Safety Code, section 25218.1(f).

"Heating, ventilating and air-conditioning (HVAC) Contractor" has the meaning as defined in Cal. Code Regs., title 16, section 832.20.

"Manufacturer" has the meaning as defined in Health and Safety Code, section 25214.8.11(a).

"Mercury-added thermostat" has the meaning as defined in Health and Safety Code, section 25214.8.11(b)

"Out-of-service mercury-added thermostat" has the meaning as defined in Health and Safety Code, section 25214.8.11(c).

"Program" has the meaning as defined in Health and Safety Code, section 25214.8.11(d).

"Retailer" has the meaning as defined in Health and Safety Code, section 25214.8.11(e).

"Thermostat" has the meaning as defined in Health and Safety Code, section 25214.8.11(f).

"Wholesaler" has the meaning as defined in Health and Safety Code, section 25214.8.11(g).

Authority: Section 58012 and 25150 Health and Safety Code. Reference: Section 25214.8.11 and 25218.1, and 25214.8.17 Health and Safety Code. Reference: Cal. Code Regs., tit. 16, §832.20 and 832.21.

### §67388.4 Methodology for Calculation of Number of Out-of-Service Mercury Added Thermostats Becoming Waste Annually

- (a) For the purpose of the calculation in section 67388.5 the number of out-of-service mercury-added thermostats becoming waste are 313,500 for the 2012 calendar year and 306,500 for the 2013 calendar year.
- (b) Beginning on March 1, 2014, the department shall post the number of out-of-service mercury-added thermostats that became waste for the previous year based on the following methodology:

$$T_{AW} = \left[ \frac{(T_{HVAC} \times N_{HVAC})}{P_{HVAC}} \right] + (T_D \times N_D) + T_{UHWM} + T_{HHWCF}$$

$T_{AW}$  - Number of out-of-service mercury-added thermostats that become waste annually

$T_{HVAC}$  - Average number of mercury-added thermostats removed per HVAC contractor, as reported annually by HVAC contractors

$N_{HVAC}$  - Number of licensed HVAC contractors, as reported by the California State Contractors License Board

$P_{HVAC}$  - Percent of thermostat work attributable to HVAC contractors, expressed in decimal form

$T_D$  - Average number of mercury-added thermostats removed per demolition contractor, as reported annually by demolition contractors

$N_D$  - Number of licensed demolition contractors, as reported by the California State Contractors License Board

T<sub>UHWM</sub> - Number of out-of-service mercury-added thermostats reported on Uniform Hazardous Waste Manifests under California Waste Code 615

T<sub>HHWCF</sub> - Number of out-of-service mercury-added thermostats reported in the California Household Hazardous Waste Collection Facilities Form 303(b). When necessary, the department may calculate the number of out-of-service mercury-added thermostats that are reported by weight based on the following formula:

$$T = (T_{lbs} \times 453.6 \text{ grams/lb}) \div k$$

T - Number of out-of-service thermostats collected

T<sub>lbs</sub> - Weight of out-of-service thermostats collected

k - Conversion factor for weight of thermostat = 100 grams per thermostat

Authority: Section 58012 and 25150, Health and Safety Code. Reference: Section 25214.8.15, 25214.8.16 and 25214.8.17 Health and Safety Code.

#### §67388.5 Manufactures' Annual Collection Rate

(a) The manufacturer or group of manufacturers shall meet or exceed the annual collection rate established by the department. The collection rates for out-of-service mercury-added thermostats are:

2012 – 20%

2013 – 40%

2014 – 60%

2015 – 80%

(b) After 2015 the collection rate will be 80%.

(c) In the case of multiple manufacturers operating individual programs, the department shall assign a percentage of the collection rate to each manufacturer or group of manufacturers based upon:

(1) Each manufacturer or group of manufacturers providing current market sales data to determine their percentage of thermostats sales compared to the total sales of thermostats by all manufacturers or group of manufacturers; or

(2) The department will determine the proportion of thermostats attributed to each manufacturer or group of manufacturers based on previous annual reports pursuant to Health and Safety Code 25214.8.13(i).

(d) On July 1 and January 1 of each calendar, the department shall post a notice on its Internet Web site listing each manufacturer or group of manufacturers that is not in compliance with this chapter and Health and Safety Code..25214.8.12

Authority: Section 58012 and 25150, Health and Safety Code. Reference: Section 25218.8.13 Health and Safety Code.

#### §67388.6 Manufacturers' Compliance Requirements

(a) The department may order a manufacturer, or group of manufacturers operating a program to revise its program and to undertake actions to comply with section 67388.5 and Health and Safety Code sections 25214.8.12, 25214.8.13 if a manufacturer or group of manufacturers is deemed by the department to be out of compliance with the collection rate in section 67388.5, then the department shall require the manufacturers to follow the steps in subsection (b) to increase their collection rate to achieve the required collection rate in section 67388.5.

(b) If a manufacturers collection is:

(1) less than the collection rate, then:

a. Implement a financial incentive program for the recycling of each mercury added thermostat collected by a manufacturer or group of manufacturers.

b. The manufacturer or group of manufactures shall revise its program to undertake actions to comply with the collection rate of this chapter by entering into a Consent Agreement with the Department that specifies the revisions to the program and the actions the manufacturers will undertake.

c. Should a manufacturer or group of manufacturers fail to revise its program to undertake actions to comply with this Chapter, the Department may issue an order pursuant to Health and Safety code sections 25187 and/or 25214.8.17

(2) less than 50% of the collection rate, then:

a. The manufacturers or group of manufacturers shall comply with the requirements of subsection (b)(1).

b. The department may issue an order pursuant to Health and Safety Code section 25187 that imposes an administrative penalty.

- (c) If a manufacturer or a group of manufacturer do not satisfy the requirements in subsection (b) then the department will post on its website the manufacturer or group of manufacturers that have failed to meet the requirements of this chapter.

Authority: Section 58012, 25150, Health and Safety Code. Reference: Section 25180, 25187, 25189.2, 25218.8.13 and 25214.8.17 Health and Safety Code.

#### **§67388.7 Reporting Requirements**

(a) Including the requirements pursuant to Health and Safety Code 25214.8.13(i), each manufacturer or group of manufacturers' annual report submitted to department shall include the following information:

- (1) Household hazardous waste collection facility, retailer or wholesaler bin identification number,
- (2) Household hazardous waste collection facility, retailer or wholesaler name and site address of the bins collected,
- (3) Contact person's name, mailing address, telephone number,
- (4) The date that the manufacturer or group of manufacturers receives the bins from the household hazardous waste collection facility, retailer or wholesaler, and
- (5) The number of mercury thermostats collected during the previous calendar year listed by each brand name.

(b) Beginning January 1, 2013, each HVAC and demolition contractor shall submit, to the department, an annual report for the period beginning January 1 and ending December 31 of each calendar year for the previous year.

(c) Annual reports shall be submitted in an electronic format provided by the department within 30 days of the end of each reporting period. Each annual report shall include the following:

- (1) The business location's name and mailing address;
- (2) Contractors State Licensing Board Identification Number;
- (3) Name, address and telephone number of the person who should be contacted regarding the business' out-of-service mercury-added thermostat removal activities;
- (4) The number of contractors that work from that business location;
- (5) The number of mercury-added thermostats removed by the contractors and technicians that work from that business location;
- (6) The business location's service area; and
- (7) Names and addresses of the wholesaler, retailer or household hazardous waste collection facility where the business location takes the out-of-service mercury-added thermostats to be collected.

(d)(1) Notwithstanding the exemption provided for by 22CCR66273.8, an HVAC or demolition contractor's business location shall keep a record of annual reports on site for three years.

(2) In addition to the reporting requirements in sub-section (c), HVAC and demolition contractors shall keep written records on site of the following information:

- (A) The date when each out-of-service mercury-added thermostat was removed;
- (B) The location where each out-of-service mercury-added thermostat was removed;
- (C) The date when each out-of-service mercury-added thermostat was disposed; and
- (D) The location where each out-of-service mercury-added thermostat was disposed.

Authority: Section 58012 and 25150, Health and Safety Code. Reference: Section 25214.8.13, 25214.8.15, 25214.8.16 and 25214.8.17 Health and Safety Code.