



Managing Mercury Thermostats

New York State Mercury Thermostat Collection Act of 2013

On December 18, 2013 the Governor signed the Mercury Thermostat Collection Act of 2013 (PDF) (31 KB) into law. This legislation adds a new Title 29 to Environmental Conservation Law (ECL) Article 27, "Mercury Thermostat Collection Act" and provides for the mandatory collection and environmentally sound management of mercury thermostats. Homeowners will now have more convenient opportunities for the safe drop-off and recycling of out-of-service mercury thermostats, thereby diverting them from being improperly disposed of in the trash, ultimately ending up in landfills and at municipal waste combustion facilities. **It is illegal to throw mercury thermostats in the trash, as New York State has had a disposal ban in place since 2005.**

The Act requires thermostat manufacturers, individually or collectively with other manufacturers, to establish and maintain a program for the collection, transportation, recycling, and proper management of out-of-service mercury thermostats at no cost to the consumer or other persons participating in the program. Manufacturers are required to:

- By July 1, 2014, compile a list of thermostat wholesalers in the state, offer them collection containers and make collection containers available to all qualified contractors, thermostat wholesalers, retailers, and local governments that request containers.
- Beginning July 1, 2014, conduct education and outreach efforts, including establishment of a website that provides for the identification of collection sites and the development of materials for distribution by wholesalers, retailers, contractors and local governments.

Collection Goals

The Act establishes a collection goal of no less than 15,500 out-of-service mercury thermostats for the calendar year 2015. By October 1, 2015, the Department of Environmental Conservation (the Department) will establish the collection goals for calendar years 2016 through 2023. In setting the collection goals, the Department must take into account: the effectiveness of the program in the state and of similar programs in other states; collection requirements of other states; available reports and studies; and other relevant factors. The Department will also be required to consult with stakeholder groups, including industry representatives, municipal recyclers, wholesalers, retailers and environmental groups, prior to setting these goals. Manufacturers would have to implement any changes to collection programs approved by the Department within 90 days. If the collection programs fail to achieve collection goals, the Department, following stakeholder consultations, could require changes to a program including improvement in education and outreach efforts, expansion of the number and location of collection sites and mandate that manufacturers to provide a \$5 incentive, in the form of either cash or coupon.

Program Requirements

The Act requires thermostat manufacturers to submit an annual report to the Department. The report will include:

- The number of thermostats collected during the previous calendar year and the estimated

amount of mercury contained in the thermostats collected;

- A list of the all of the wholesalers, contractors, local governments, and retailers participating as collection sites;
- An accounting of the administrative costs of the program;
- A description of outreach strategies and examples of outreach and educational materials;
- The address of the website where the annual report may be viewed;
- A description of how the thermostats were managed; and
- Any modifications the manufacturer is planning to make to the program.

Thermostat wholesalers are prohibited from selling thermostats unless they participate as collection sites and wholesalers and retailers are prohibited from offering for sale or distributing thermostats unless the manufacturer of such thermostats is listed on the Department's website. The Act also prohibits transporters from knowingly comingling mercury-added thermostats with recyclable materials, or transporting or knowingly delivering mercury thermostats to incinerators, landfills, transfer stations, or to anyone the transporter knows might comingle materials or make such unlawful deliveries. Contractors who replace mercury thermostats or demolish buildings, including those which receive state funding to do so, are required to bring mercury thermostats to collection programs, and any department or authority which provides funding for such purpose would have to notify contractors of these obligations.

The Department is required to post information regarding the proper collection and management of out-of-service mercury thermostats on its website by June 1, 2015, and submit a report to the Governor and Legislature regarding the effectiveness of the collection program by November 1, 2018. The Act takes effect immediately and will expire and be deemed repealed January 1, 2024.

Frequently Asked Questions regarding mercury thermostats:

Q: What is a mercury thermostat and how does it work?

A: Many older wall-mounted thermostats, sold prior to 2006, contain a switch with a small glass ampoule containing a silvery liquid called elemental mercury. This is called a mercury switch. Elemental mercury's excellent conductivity and high surface tension make it extremely effective for use in a switch. The mercury moves freely within the glass ampoule, opening and closing an electrical circuit which controls a furnace or air conditioner to maintain a desired room temperature. Most mercury thermostats contain from three to five grams of elemental mercury.

Q: Why do I need to properly recycle my mercury thermostat?

A: Mercury is a persistent and toxic pollutant. Elemental mercury can cause adverse health effects when it is breathed as a vapor and is absorbed through the lungs or absorbed through the skin. These exposures can occur when thermostats that contain elemental mercury break and release mercury into the air, particularly in warm or poorly ventilated indoor spaces. Exposure can also occur when mercury thermostats are improperly discarded into the solid waste stream, where the mercury switches can be broken or incinerated, releasing the mercury into the environment. To prevent breakage and mercury releases, mercury thermostats should be managed carefully when being removed or replaced and taken to an appropriate collection site for recycling. More information regarding mercury in the environment is available at "What do you know about mercury?"

Q: Do all thermostats contain mercury?

A: No. There are several thermostat designs that are mercury-free. These include electronic, snap-action, reed switch, and vapor-filled diaphragm thermostats. For the most part, mercury thermostats

have been replaced with electronic digital thermostats. Electronic programmable digital thermostats can provide energy savings by allowing for desired temperature settings at pre-set times.

Q: Is it safe to have a mercury thermostat in my home?

A: Mercury thermostats are safe when used as designed. The mercury is sealed inside a glass ampoule. The consumer is not exposed to the mercury unless the ampoule is tampered with and breaks. Mercury thermostats were designed with a sturdy casing to protect the mercury switch. Always handle mercury thermostats with care and recycle properly.

Q: Is it safe to remove the glass ampoule containing mercury from the mercury thermostat?

A: No. Never remove the glass ampoule containing the mercury from the thermostat housing. It is best to keep the thermostat unit whole with the cover attached to the thermostat. Extra care should be taken to prevent accidental breakage and the release of mercury during storage or transport of the mercury thermostat.

Q: What should I do if the mercury switch inside my mercury thermostat breaks and the mercury is released?

A: Mercury is a toxic substance and should be treated with care. If the mercury switch breaks and mercury is released, please visit the NYS Department of Health's webpage on how to clean up a mercury spill under the Links Leaving the DEC's Website section on the right-hand side of this webpage.

Q: Do I have to replace my mercury thermostat with a non-mercury one?

A: New York State law has prohibited the sale of mercury thermostats since January 1, 2012 but there is no requirement that you replace your existing mercury thermostat. If you do decide to remove a mercury thermostat (e.g., you plan to replace it with an energy-efficient programmable model, you are upgrading your heating, ventilation and air-conditioning (HVAC) system, or you plan to demolish the building) you need to manage the unwanted mercury thermostat safely and properly.

Q: Do I have to recycle my mercury thermostat?

A: Yes, New York State has had a disposal ban on mercury thermostats since 2005, **it is illegal to throw your mercury thermostat in the trash.**

Q: How and where do I recycle my mercury thermostat?

A: Currently, the Thermostat Recycling Corporation (TRC) collects and recycles mercury thermostats under its voluntary program. Be sure your technician or contractor removes and manages your thermostats in accordance with the New York Mercury Thermostat Collection Act. A listing of mercury thermostat collection sites will be made available beginning in July 2014. Until then, please visit the TRC website under the Links Leaving DEC's Website section on the right-hand side of this webpage or check with your local municipality and the Department's HHW Collection Programs for mercury thermostat recycling locations. *www.thermostat-recycle.org*

Q: What happens to the old mercury thermostat that my contractor removed?

A: Your HVAC contractor is required to properly manage your mercury thermostat and bring it to a mercury thermostat collection site as it is illegal to dispose of mercury thermostats in the trash. The mercury from your thermostat will be removed and recycled for use in new products.

Q: I still have questions on how to properly handle my mercury thermostat. Whom should I contact?

A: Contact the Product Stewardship and Waste Reduction Section at 518-402-8706 or e-mail.

This page will be updated periodically to reflect additional details regarding the new mercury thermostat collection program.