

Before You Tear it Down, Get the Mercury Out

Recommended Management Practices for Pre-Demolition Removal of Mercury-Containing Devices from Residential Buildings



Mercury can be found in various devices in residential buildings. When a mercury-containing product breaks and the mercury is spilled, the exposed mercury can evaporate and become an invisible, odorless toxic vapor. To prevent mercury releases, these products should be used and stored safely, and managed properly at the end of their useful lives. This fact sheet specifically addresses pre-demolition removal of mercury-containing gas pressure regulators, mercury-containing boiler heating systems, and thermostats. For information on proper removal and management of other mercury-containing products in homes, go to www.epa.gov/osw/hazard/tsd/mercury/con-prod.htm.

Mercury-Containing Gas Pressure Regulators

Issue: Some homes that were built prior to 1968 have a mercury-containing gas pressure regulator adjacent to the gas meter. Most of these devices were manufactured and installed in the 1940s and 1950s, but a few were manufactured and installed in some areas as late as 1967. These devices contain approximately two teaspoons of mercury. Mercury spills have sometimes occurred during improper removal of these devices, causing a potentially significant health risk and resulting in costly cleanups.

Recommended Management: Mercury-containing gas pressure regulators should be removed only by qualified gas company personnel. Local government entities planning to demolish residential buildings (or anyone planning to demolish any building) having gas pressure regulators or other gas equipment should inform the local gas company of their proposed demolition



World War II-era mercury-containing gas pressure regulator. (Photo courtesy of the American Gas Association.)



A gas pressure regulator, adjacent to a gas meter, with the location of the mercury cup identified.

schedule at least two weeks in advance of

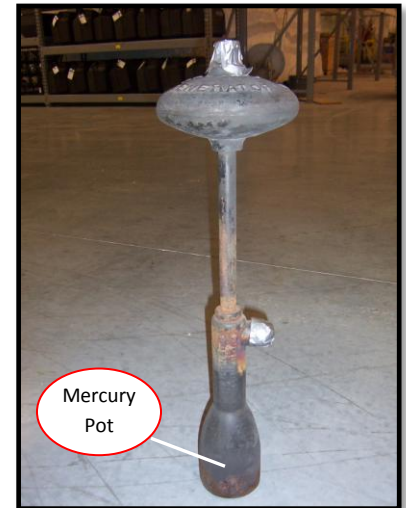
demolition. This notice will enable the gas company to ensure that gas service is turned off, protect underground natural gas pipes and infrastructure from damage, prevent gas leaks, and coordinate the proper removal and disposal of any mercury-containing gas pressure regulators prior to demolition.

REMINDER: Call 811 before you dig to identify the location of gas lines!

Mercury-Containing Boiler Heating Systems (e.g., Honeywell Heat Generators)

Issue: Some homes with an old boiler heating system may have a Honeywell Heat Generator (also called a mercury seal generator), which was invented in 1904 to improve home hot-water heating systems. These devices may be found near the boiler in the basement or near a radiator on an upper floor. They contain several fluid ounces of mercury. Mercury spills can occur as a result of improper removal of these devices. A spill can require a significant cleanup effort: in April 2011, EPA's Region 10 Superfund Program responded to a mercury spill at a home where an old 1920s boiler had been improperly removed, resulting in a spill of about 4 fluid ounces of mercury.

Recommended Management: Prior to demolition, Honeywell Heat Generators should be removed in a manner that ensures no mercury is released from the unit. Remove the unit intact, as seen in the photo. Then, place the entire unit into a large plastic bag, always keeping the unit in a vertical position. Take the unit to a local household hazardous waste facility or hire a professional environmental consulting company, both of which have trained personnel who can handle and dispose of mercury appropriately.

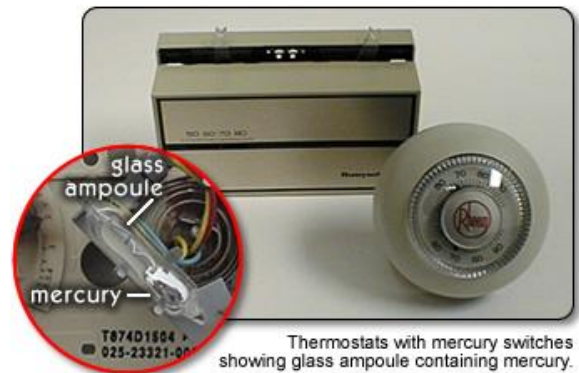


A mercury-containing Honeywell heat generator may be connected to old boiler heating systems.

Mercury-Containing Thermostats

Issue: Some thermostats contain mercury switches. Mercury is contained in one or more glass ampoules inside the thermostat. There is a risk of a mercury spill if the item is broken.

Recommended Management: Mercury-containing thermostats should be removed, with the covers replaced for safety, and properly disposed prior to demolition. Your county or solid waste management district may already operate a thermostat recycling program. If not, they can begin one or you can find a recycler near you by contacting the Thermostat Recycling Corporation (TRC). TRC will provide a collection bin for intact thermostats (with the cover attached). The filled bin is shipped back to TRC free-of-charge and TRC will replace it with an empty collection bin. Communities interested in collecting thermostats from their residential building demolition program should contact TRC directly about potential collection options. See www.thermostat-recycle.org for more information about TRC's thermostat recycling collection program or email TRC at trc@thermostat-recycle.org.



(Image courtesy of Vermont Department of Environmental Conservation.)