



**Mercury Thermostat Recycling:
Reaching Consensus on Methods for Calculating Recycling Rates
Summary of December 9, 2008 Call -- FINAL**

Scott Cassel of PSI began the December 9 call by asking if there were any corrections to the minutes from the previous call on October 30. Theresa Stiner asked that the minutes be changed to reflect that Iowa DNR “proposes” rather than “plans” to adopt a recycling rate methodology similar to Maine’s.

Jennifer Nash of PSI summarized three approaches for assessing the performance of mercury thermostat recycling programs: **stretch goal, collection-based goal, and recycling rate**. The group decided that the **stretch goal approach**, which compares the number of thermostats collected in a particular program to the number collected in best-in-class programs, is a subset of the collection-based approach.

A **collection-based approach** assesses performance based on the percentage increase in collections relative to a base year. An example of this approach is Pennsylvania’s mercury thermostat program. PA DEP chose this approach because they wanted mercury thermostat recycling goals that were flexible and achievable. Manufacturers favor this approach because it relies on actual collections data rather than assumptions.

A **recycling rate approach** compares the number of mercury thermostats collected to the number available for recycling. Most state and local officials on the call favored this approach because they believe that it puts collection numbers into context so that performance can be evaluated. These officials believe that this approach provides information that states can use to hold people accountable and also provides an incentive to improve performance. An example of this approach is Vermont’s mercury thermostat law that calls for the state to achieve a 65% recycling rate by July 2011.

People on the call voiced support for both the collection-based and recycling rate approaches. They noted that agencies, legislators, and the public need information both about the number of thermostats collected compared to previous years as well as the number collected compared to the total available for recycling. Even though recycling rates are difficult to calculate precisely, it may be possible for states to develop reliable estimates. Most state and local officials on the call stated that, for states seeking to understand whether they are maximizing the collection of mercury thermostats, the recycling rate approach is necessary.

Taylor Watson led a discussion of **King County’s approach to determining the number of thermostats available for recycling**. In 2005, King County undertook a population study of

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mercury thermostats in commercial buildings. A primary motivation for the study was the lack of evidence about the number of mercury thermostats in use—King County was concerned that EPA’s studies about the prevalence of mercury thermostats, conducted in the early 1990s, might no longer be reliable.¹ Taylor’s group visited 1% of the commercial buildings in King County, some 346 structures. The distribution of mercury thermostats correlated strongly with building age. Buildings that were built in the period 1953-1980 were the most likely to contain mercury thermostats. Taylor explained that one result from the study is a mathematical model of the relationship between building characteristics (age, size, heat source, predominant use) and the presence of mercury thermostats. Using the King Co. model and localized data from county assessor, permit office, or other local databases, states can estimate the number of mercury thermostats available for recycling in each of their counties. Taylor offered several ways to adapt the King County approach to reduce the cost and staff resources required.

The attendees scheduled for January 7 and January 21, 2009. **Subsequently, these calls were cancelled, so the next call is on February 3, 2009.**

December 9, 2008 call participants (31):

James Burgess	AL Department of Environmental Management
Randy Case	WI Department of Natural Resources
Regan Clover	MA Department of Environmental Protection
Lauren Cole	King County Solid Waste Division
Frank Coolick	PSI Board of Directors
Stephanie D'Agostino	NH Department of Environmental Services
Gary Gulka	VT Department of Environmental Conservation
Jen Holliday	Chittenden County Solid Waste District
Karen Knaebel	VT Department of Environmental Conservation
Mark Kohrost	NEMA
Paul L. Lockwood	NH Department of Environmental Services
Glenn Mitzel	PA Department of Environmental Protection
Dan O'Donnell	Honeywell
Samantha Omey	Honeywell
Ann Pistell	ME Department of Environmental Protection
Bob Reinke	MT Department of Environmental Quality
Kenneth R. Reisinger	PA Department of Environmental Protection
Rob Rieck	WA Department of Ecology

¹ US EPA. 1992. *Characterization of Products Containing Mercury in Municipal Solid Waste in the United States, 1970-2000*, EPA530-R-92-013. Washington, DC: US EPA, Office of Solid Waste Municipal and Industrial Solid Waste Division; Sass, B., M. Salem and L. Smith. 1994. *Mercury Usage and alternatives in the Electrical and Electronics Industries*, EPA/600/R-94/047. Cincinnati, OH: US EPA, Office of Research and Development.
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Neena Sahasrabudhe	CA Department of Toxics Substances Control
Jamie Silberberger	Women's Voices for the Earth (WVE)
Mark Smith	MA Department of Environmental Protection
Theresa Stiner	IA Department of Natural Resources
Mark Tibbetts	Thermostat Recycling Corporation
Sharon Trostle	PA Department of Environmental Protection
Taylor Watson	King County (WA) Local Hazardous Waste Management Program
Jeri Weiss	US EPA Region I
Michael Bergman	WA Department of Ecology
Ginger Jordan-Hillier	ME Department of Environmental Protection

PSI:

Scott Cassel, Executive Director; Jennifer Nash, Director of Policy & Programs; Jim Schrack, Director of Product Sustainability