



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

MEMO

TO: W. Charles Smithson, Chief Clerk of the House

Michael Marshall, Secretary of the Senate

Ronald Parker, Senate Democratic Caucus Staff Director

John Hodges, Senate Republican Caucus Staff Director

Joseph Romano, House Democratic Caucus Staff Director

Jeffrey Mitchell, House Republican Caucus Staff Director

Julie Vande Hoef, Governor's Office

FROM: Roger Lande, Director, Dept. of Natural Resources

A handwritten signature in cursive script, appearing to read "Roger Lande".

Cc: Sharon Tahtinen, Legislative Liaison, Dept. of Natural Resources

William Ehm, Admin., Environmental Services Div., Dept. of Natural Resources

DATE: January 3, 2012

RE: Report on Mercury Thermostat Recycling

I am pleased to provide this status report on the implementation of the Mercury Thermostat Recycling Program as required by Iowa Code 455D.16.

The purpose of Iowa code 455D.16 is to stop the sale and installation of mercury-added thermostats and require manufacturers of mercury containing thermostats to collect and recycle as many mercury-added thermostats as reasonably practicable. To ensure success of the program, the legislation directed the department to submit an annual report to the General Assembly regarding the collection and recycling of mercury-added thermostats in the state and recommendations for statutory changes concerning the collection and recycling of mercury-added thermostats.

Status of the Mercury Thermostat Recycling Program¹

The Thermostat Recycling Corporation (TRC) is acting on behalf of 28 manufacturers representing 85 brands. TRC has 84 collection locations in Iowa, 25 of those are Regional Collection Centers for household hazardous waste and 59 are wholesalers or distributors. The program collected 2,225 mercury thermostats containing 18.93 pounds (8,586.6 grams) of mercury. This is a decrease of 25% from 2009

¹ This data is based on reports submitted by thermostat manufacturers for the calendar year 2010. Reports for 2011 are due to the Department April 1, 2012.

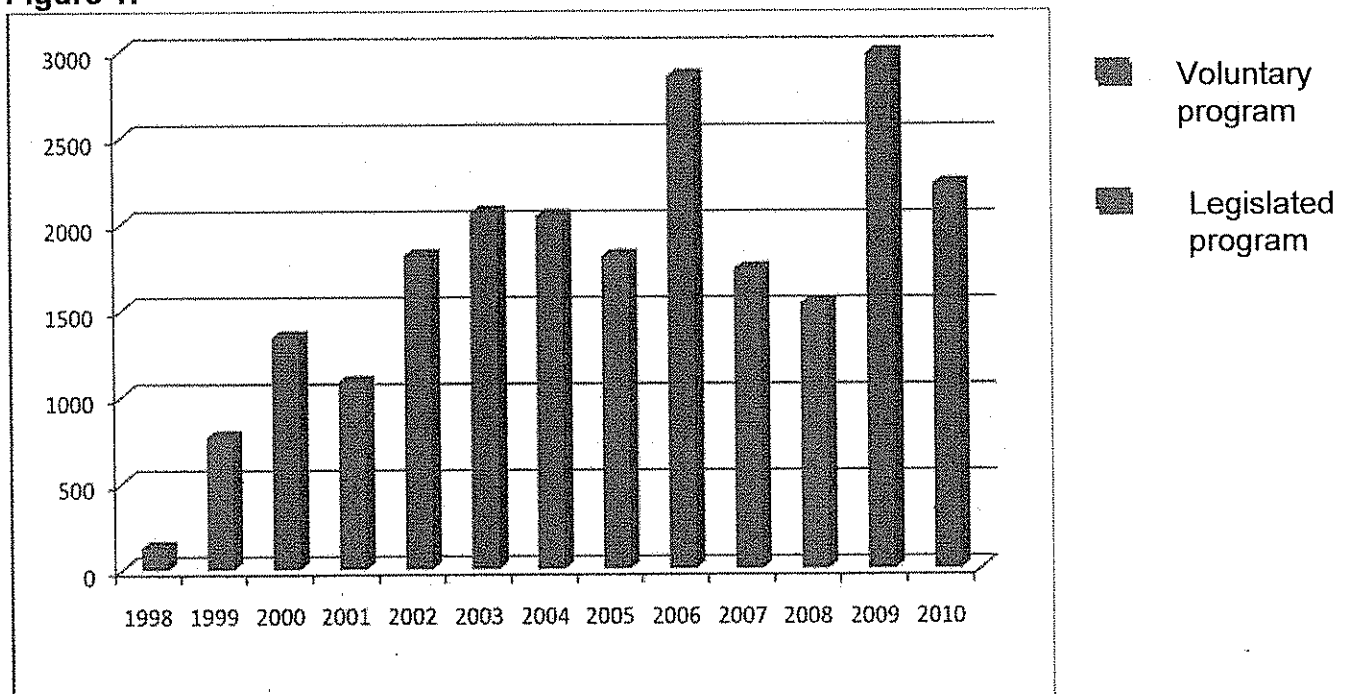
Actual Collection Rates

The collection rate is the number of thermostats collected, divided by the number available for collection, expressed as a percentage. Although the number of thermostats collected is available from the TRC report, the number of mercury containing thermostats available for recycling is not as easily obtainable. To determine this, one needs to know the number of thermostats removed each year and what percentage of those contain mercury. The department has been unable to reach an agreement with industry representatives on what the collection goals should be.

Evaluation of the Effectiveness of the Thermostat Recycling Program

Although 2009 was the first year of the legislated program, TRC has been collecting mercury thermostats in Iowa since 1998. Figure 1 shows the number of thermostats collected by TRC each year. The number of thermostats collected in 2010 decreased by 25% from 2009, and was less than what was collected in 2006 under a voluntary program.

Figure 1:



Recommendations for statutory changes

The department recommends that the legislation be amended to clarify that the collection goals shall be based on collection rates expressed as a percentage of out-of-service mercury added thermostats becoming waste annually. It should also require thermostat manufacturers to provide a statistically valid estimate of the mercury-containing thermostats that become waste in Iowa annually.

The department feels that the success of the thermostat recycling program cannot be adequately assessed without putting the number of mercury thermostats collected in the context of the number of thermostats discarded each year. Without knowing the number

of the mercury thermostats that are available for recycling, it is impossible to evaluate the effectiveness of the program. Collection goals provide the motivation to increase collection while providing manufacturers the flexibility to design and implement the program in a way that works best for them. Without collection goals, it becomes necessary to be more prescriptive in how the program should be implemented.

In the absence of clearly defined and enforceable goals; the department believes a financial incentive, provided by the manufacturers to the HVAC contractors would greatly increase the number of thermostats collected. A similar financial incentive is provided to auto recyclers by auto manufacturers for the collection of mercury switches from end-of life vehicles.

In two states, Maine and Vermont, manufacturers are required to pay a \$5.00 bounty for each thermostat collected. Figure 2 shows that states with the bounty collected at least 3 times as many thermostats per capita as legislated states without a bounty.

Figure 2:

Legislated states	Bounty	T-stats collected per 10,000 residents (2009)
Maine	\$5.00	48.350
Vermont	\$5.00	30.398
Iowa	\$0	9.917
New Hampshire	\$0	5.964
California	\$0	2.040