Model State Mercury Thermostat Program

April 24, 2007

ASTSWMO Mid-Year Meeting
What is the Product Stewardship Institute?

- Non-Profit, based in Boston, founded in 2000
- Membership
  - 38 State members
  - 41 Local agency members
- Board of Directors: 7 states, 4 local agencies
- Multi-stakeholder product stewardship network
- Adjunct Council: Business, Environmental/Organizational
PSI Projects

- **Mercury Thermostats**
- Paint
- Electronics
- Pharmaceuticals
- Radioactive Devices
- Telephone books
- Fluorescent lamps
- Gas Cylinders
- Tires
- Beverage containers
- Motor oil
State Mercury Product Bills
and Adopted Laws

Source: John Reindl, Dane County, WI Dept. Natural Resources

0 25 50 75 100 125 150 175 200 225 250 275 300

States Bills Adopted Bills
### Selected State Mercury Product Bills 2001-2006
Source: John Reindl, Dane County, WI Dept. Natural Resources

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<tr>
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# Most Frequent Subjects of Adopted State Mercury Product Legislation

## 2001-2002 thru 2005-2006 Sessions

Source: John Reindl, Dane County, WI Dept. Natural Resources

<table>
<thead>
<tr>
<th>Subject</th>
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<td>Vehicle switch removal</td>
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<td>Studies/planning</td>
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<td>Labeling</td>
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<td>Thermostat sales restrictions</td>
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<td>Electronics</td>
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<td>Amalgam filling use</td>
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<td>Comprehensive bills</td>
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April 24, 2007  
PSI Model State Mercury Thermostat Program
Mercury Thermostat
Sales Restrictions

- California
- Connecticut
- Louisiana: Effective 2008
- Maine
- Maryland: Effective October, 2007
- Michigan
- New York: Effective 2008
- Oregon
- Rhode Island
- Vermont
- Washington: Ban, unless mfr participates in recycling
Mercury Thermostats
PSI Thermostat Dialogue
Starting Place

- Mercury thermostats continued to be sold
- Producer responsibility collection program in place
  - HVAC wholesalers only
  - Industry funded (TRC) program
  - Lackluster performance
TRC Established in 1998

- Three major manufacturers:
  - Honeywell,
  - White-Rodgers,
  - GE

- Established program using Universal Waste rule.
- UW rule requires collection of whole thermostats
- TRC pays all transportation and recycling costs
- TRC collection results (1998-2006)
  - 530,000 mercury thermostats collected
  - represents nearly 4,900 pounds of mercury
Mercury Thermostat Replacement

- Mercury thermostats are safe for use
- Reasons to replace mercury thermostat:
  - Thermostat breaks
  - Energy savings with programmable thermostat
  - Replace when furnace replaced or when remodeling
Why Participate in TRC Collection

- Environmental benefits – proper management of hazardous material (mercury)
- Cost savings – TRC pays
- Add collection locations - convenience
PSI Thermostat Dialogue Process

- Thermostat Stewardship Action Plan
  - Research
  - 30 Stakeholder Interviews
- Dialogue (2 meetings – 2004)
  - Workgroups
  - Agreements
- Implement agreements/projects
Industry Stakeholders

- Thermostat manufacturers
  - Honeywell, General Electric, White-Rodgers, Thermostat Recycling Corporation (TRC)
- HVAC wholesalers
- HVAC contractors
- Demolition contractors
- Retailers (Lowe’s, Home Depot, Retail Industry Leaders Assoc.)
Other Stakeholders

- Government
  - U.S. EPA Region 5 and Headquarters
  - State agencies
  - Local agencies

- Other
  - Energy utility (Portland General Electric)
  - Environmental groups
Dialogue Focus

- Collection and recycling
  - HVAC Contractors/Wholesalers (75%)
  - Homeowners/non-professionals (25%)
  - Demolition contractors
- New thermostat sales
Priority Issues

- Awareness ➔ education
- Collection options ➔ infrastructure
- Motivation to participate ➔ incentive
PSI Thermostat Projects

- Expansion to Wholesaler Chain Stores
- Expansion to Contractor Locations
- Financial Incentive for HVAC contractors (IN/OR)
- Collection at HHW Facilities
- Maine law – 1st comprehensive law in nation
- Maine – contractor incentive ($5)
- Maine – homeowner incentive + mail back ($5)
- Model thermostat program/legislation
- Retail collection pilots
Maine Thermostat Law

- April 2006: signed into law
- First comprehensive thermostat law in U.S.
- Levels playing field – all manufacturers collect
  - March 15, 2007 – manufacturer plans due
- $5 financial incentive – Technician
  - Jan. 1, 2007 – state filed program (cash coupon)
  - April 1, 2007 – program begins
- $5 financial incentive – Homeowner
  - State plan by Aug. 1, 2007
- Performance goals: 70% (April 1, 2009) and 90% (November 1, 2010)
Why a Model State Thermostat Program?

- **Best way to:**
  - Maximize recycling of existing mercury thermostats
  - Minimize/eliminate future sales of mercury thermostats.

- **Avoid:**
  - Multiple state laws that do not follow any pattern – administrative complexity and expense (loss of efficiencies).
  - Time and expense developing (or fighting) legislation in multiple states.

- Comprehensive yet flexible: NOT “one size fits all”
Model State Thermostat Program

- 7 stakeholder conference calls (Fall 2006 – Feb. 2007)
- Reached consensus on 11 elements.
- Options…Buffet…Best thinking.
- Subsequent concerns raised.
- Starting place for state programs/legislation.
- Numerous bills, incl.: PA, MT, VT, IL, CA
Model State Thermostat Program

- Section 1: Definitions
  - Manufacturer: “brand name”

- Section 2: Sales and Installation Prohibition
  - One year after enactment of law
Model State
Thermostat Program

- Section 3A: Disposal Prohibition
  - “Person” – Household, Contractor, Wholesaler, etc.
  - Contractor recycling requirement
  - Effective date: 1 year after enactment (18 months for households)

- Section 3B: Professional Licensing
  - Only for states that license HVAC contractors
  - Contractor disposal ban/recycling requirement as condition to receive and maintain license
Model State Thermostat Program

Section 4A: Manufacturer Responsibility

- Establish department-approved collection and recycling program (individually or collectively)
- No cost except one-time admin fee (e.g., $25 current)
- Provide financial incentive
- Options: Specify amount or type
  - Amount/Options: $5 (ME, VT, MT); $4 (OR pilot); $3 (IN pilot); “adequate incentives” (PA); “financial or other incentives” (IL)
  - Type/Options: cash, coupons, rebates, discounts, or other incentives
Model State Thermostat Program

- Provide collection bins
- Provide education program
- 2 phases:
  - Technicians/contractors: one year from enactment
    - State agency develops one plan with stakeholder input (ME)
    - Mfrs propose program to state for approval (PA)
  - Households: 18 months from enactment
    - Formal stakeholder process recommended
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Section 4B: Wholesaler and Retailer Responsibilities

- Wholesaler: sales ban unless collection
- Wholesaler or retailer: ban on sale of “any thermostat of a manufacturer that is not in compliance”
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Model State Thermostat Program

Retailer may be required (under homeowner program):

- Facilitate a homeowner mail-back program by providing appropriate packaging upon request, point-of-sale instructions, and other tasks as needed to establish a cost effective manufacturer mail back program;
- Providing point-of-sale educational materials and signage regarding the importance of recycling mercury-added thermostats and the location of available collection locations for homeowners; and
- Other activities identified through a stakeholder process

- No consensus reached on retail collection
- Retailer: sales ban unless provides public education (some bills)
Model State Thermostat Program

Section 4C: Performance Goals

- Percentage goals based on capture rate of mercury thermostats replaced (with timetable)
- Allows state agency to alter program to meet goals through stakeholder process
- State agency charged with estimating the number of mercury thermostats potentially available for collection annually
Model State Thermostat Program

Section 4C: Performance Goals (examples)

- Pennsylvania bill
  - 50% capture rate within 2 years of enactment
  - 80% capture rate within 5 years of enactment

- Maine law
  - Performance rate: pounds of mercury collected
  - 70% capture rate within 2 years
  - 90% capture rate within 3 years
Model State Thermostat Program

Section 4D: Program Performance Reporting
- Manufacturer(s) submit annual report to state
Key Issues

- Total program cost
  - Who pays for which elements?
  - Financial incentive
  - Mail back option for homeowners
  - Educational materials at retail

- Performance goals
  - Methodology for estimation
  - Agency discretion to change programs if goals not met
Key Issues

- Retail Collection
  - Opens up another option – convenience
  - Greater shared responsibility for retailers
  - Pilot collection
What Do These Numbers Mean to Paint Management In the U.S.?

64 million  Estimated # of gallons/year leftover in U.S.
→ 10% of all paint sold (oil and latex)

$8  Estimated average cost/gallon to manage

$512 million  Estimated total cost to manage leftover paint

This is not sustainable!!
**Key Issues**

- March 21, 2007 – NPCA Board Resolution
- July 1, 2007 – Demonstration Project – MN
- January, 2009 – National roll out begins
For More Information

Mercury Thermostat Model Program
www.productstewardship.us/

NPCA Board Paint Resolution
www.productstewardship.us/PaintReports (Bullet 1)
For More Information

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