

Recommendations for State Action on Mercury Containing Products
Council on Recycling
May 23, 2006

Issue to be addressed

The major issue is to reduce the release of mercury from products to the environment, due to their contamination of food (especially fish) and the subsequent harm to human health. A second issue is to reduce or prevent the potential interaction of children with mercury-containing products.

Guiding principle

Because mercury is contained in many products and it is not believed to be feasible to put the focus on all of these products initially, the focus will be on those products that either contain the most mercury or are the easiest to impact.

In addition to specific products, attention is also to be paid to minimizing the disposal of mercury-containing products in solid waste and wastewater treatment facilities.

Priority Materials

According to the DNR mercury flow model that was presented to the Council by Randy Case of DNR at our November, 2003 meeting at the Schlitz Audubon Center, 3,007 kilograms of mercury were estimated to have been released to the environment in 2000 in Wisconsin from the six largest product groups, an amount that exceeded the discharge of mercury to the air from all the coal-burning plants in the state. The largest contributions of mercury to the environment in Wisconsin in 2000 were:

Thermostats	657 kilograms a year
Dental office scrap to landfills	392 “
Thermometers	267 “
Fluorescent lamps	263 “
Dental office scrap to wastewater	252 “
Auto switches	109 “

For some of these products – such as thermometers and auto switches – it is believed that the discharges to the environment have decreased significantly from the estimate for 2000 due to elimination of the use of mercury in new products, beginning several years ago.

In addition, there are existing programs for the management of mercury for a number of the above materials.

For thermostats, the thermostat industry has developed the Thermostat Recycling Corporation collection and recycling program, which is targeted mainly at heating, ventilating and air conditioning wholesalers and contractors. Wisconsin has typically ranked in the top three of all states in the collection of thermostats recycled through this program, and the numbers in the model reflect this effort, which is estimated to collect less than 5% of the thermostats discarded in the state annually. While the sale of mercury thermostats is declining, the impact of this decline will not be reflected in the model for many years, since thermostats have long lives of 50 years or more.

For the dental offices, the pollution prevention plans under development by those municipal waste water treatment plants that receive more than 1 million gallons a day are expected to include requirements for improved management of mercury from dental offices.

For fluorescent lamps, while some communities either collect these lamps through their Clean Sweep programs or through retailers, on a statewide basis there is not a concerted effort to improve collections. In addition, the sales of fluorescent lamps is believed to be increasing, due to the sales of compact fluorescent lamps. Finally, the use of mercury in automotive HID lamps is adding a new source of mercury to the environment.

For auto switches, the scrap auto industry has established a comprehensive auto switch recycling program in partnership with DNR.

From a product viewpoint, it is thus recommended that the Council focus on thermostats and fluorescent lamps, with strong support for the further implementation of existing programs for mercury from dental offices and auto switches.

Tools available to the state

The state has several tools available for effecting change, including:

- statutes and regulations restricting legal behavior
- educational programs
- financial incentives or disincentives
- leadership in its own actions
- development and operation of programs to handle the issue

Recommendations

General

Support for the current program for the collection and recycling of dental amalgam through pollution prevention programs operated by the larger wastewater treatment systems

Support for the current program for the collection and recycling of mercury tilt switches from vehicles at vehicle scrap yards

Ban the discard of mercury-containing products with solid waste (similar to Minnesota, California and other states)

Provide monies from the recycling fund to help finance the collection of household products with mercury at municipal Clean Sweep programs

Thermostats

Require all HVAC wholesalers and/or contractors to set up collection and recycling programs for discarded mercury thermostats – similar to Maine

Require all wholesalers and retailers of thermostats (regardless of whether they are mercury or not) to set up take-back and recycling programs for their customers

Ban HVAC contractors from leaving replaced mercury thermostats at job sites (similar to Minnesota)

Ban the sale of mercury thermostats – done by several states

Require the inclusion of training on mercury thermostats recycling in union and technical courses for the HVAC industry

Require informational sheets on the proper management of replaced mercury thermostats to be included with all sales of thermostats

Require the Department of Commerce – in conjunction with the DNR – to develop educational and informational materials for the building industry on the proper management of mercury thermostats and to track and report the results of mercury thermostat collection and recycling in the state. This would include information for HVAC, custodial, and property management staff

Require the DOA energy program and Focus on Energy programs to include a thermostat recycling requirement in all of its programs that include thermostat replacement

Fluorescent lamps

Require all retailers of fluorescent lamps to set up take-back and recycling programs for fluorescent lamps for their customers

Require that all sales of fluorescent lamps include information that they cannot be disposed of with solid waste

Automotive HID Lamps

Require all retailers of automotive HID lamps to set up take-back and recycling programs for these lamps for their customers

Schools

Prohibit the use of elemental mercury in both classroom equipment and in nursing stations