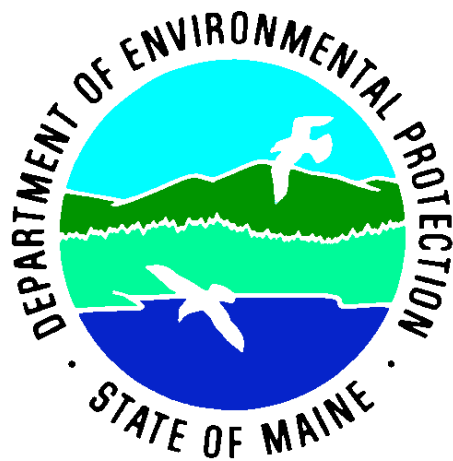


Maine Department of Environmental Protection

MERCURY-ADDED PRODUCTS

Education and Outreach Plan
2000 and Beyond



January 4, 2001

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Introduction

In "An Act to Reduce the Release of Mercury into the Environment from Consumer Products", the 119th Legislature dictated that the Department of Environmental Protection (DEP) and the Executive Department, State Planning Office (SPO) will implement an education program relating to mercury-added products no later than January 1, 2001. This program must provide information to the public about:

- labeled mercury-added products,
- the requirements of the law regarding source separation of waste mercury-added products, and
- collection programs that are available to the public.

This document discusses the education and outreach efforts that the DEP and SPO will implement as part of that program, including initiatives that began prior to January 1, 2001. Please note that since mercury contamination is a national issue, and corporations, consumers, and governments are changing practices to address this very issue, our education and outreach efforts will evolve and adapt with these changes.

This education and outreach plan includes background information on why mercury is a problem, information on relevant statutory and regulatory requirements, and discussions on our education and outreach efforts by product as well as target audience.

Why is mercury a problem?

Mercury is a heavy metal that is used in the manufacture of many consumer goods and is found naturally in the environment. Naturally occurring mercury is found in very small amounts in oceans, rocks, and soils, and can become airborne when rocks erode, volcanoes erupt and soils decompose. Large amounts of mercury also become airborne through manmade processes such as burning coal, oil, wood, or natural gas as fuel, incinerating mercury-containing garbage, and through industrial production processes that utilize mercury. Once in the air, mercury can fall to the ground with rain and snow, landing on soils or water bodies, causing contamination.

Once mercury is released into the environment it can change to methylmercury, a highly toxic compound. Methylmercury is easily taken up in living tissue and bioaccumulates over time, causing serious health effects such as neurological and reproductive disorders in humans and wildlife. Since elemental mercury and mercury as part of a compound chemical do not break down in the environment, it has become a significant health threat to humans and wildlife.

Mercury levels in Maine fish and loons are among the highest in North America. This has led the Maine Bureau of Health to issue a statewide advisory recommending that pregnant women, women of childbearing age, and young children limit their fish consumption based on the type of fish they consume. The advisories have been in place since 1994 and remain in effect today because mercury levels in fish have not decreased. Currently 40 states, including Maine, have fish consumption advisories due to mercury contamination.

Governor King has joined with the other New England Governors and Eastern Canadian Premiers in calling for virtual elimination of mercury emissions from human activities. The major strategies for achieving this goal include stringent controls on significant sources of environmental releases, diverting mercury-added products from the solid waste disposal stream into recycling, and encouraging the use of substitutes to mercury-added products when available. The education and outreach plan discusses strategies to work toward those ends.

Statutory requirements related to labeling of mercury-added products

Currently Maine law states that the following mercury-added products for sale in Maine must be labeled in some fashion by January 1, 2002:

- 1.) thermostat or thermometer;
- 2.) an electrical switch, individually or as part of another product;
- 3.) a medical or scientific instrument
- 4.) an electrical relay or other electrical device, excluding an electrical device that is in a mercury-added lamp.

In addition, the law requires that anyone who sells mercury-added lamps to owners or managers of an industrial, commercial or office building, or to any person who replaces or removes from service outdoor lamps that contain mercury, clearly inform the purchaser in writing that the lamps contain mercury. Retail establishments that incidentally sell mercury-added lamps (no more than 200 lamps at one sale) are exempt.

Statutory source separation requirements

Title 38 M.R.S.A. §1663 bans the disposal of non-residential mercury-added products as solid wastes after July 15, 2002. Existing hazardous waste laws ban such disposal in many cases already. Section 1664 goes on to state that when a mercury-added product is removed from service, the mercury in the item must be reused, recycled, or otherwise managed to ensure compliance with section 1663. Products used in a home are not subject to the disposal ban until January 1, 2005. This later date for banning of mercury-added products in the home was established to allow time for a recycling infrastructure to be developed for residential users.

Regulation of mercury-added products as universal waste

Mercury-added products from non-residential sources are frequently hazardous waste when they are discarded. The Maine Hazardous Waste Management Regulations include a section on “universal wastes” which include, among other items, mercury-added lamps and mercury thermostats. A future rulemaking will propose to expand this to include mercury thermometers, mercury medical/scientific instruments, and mercury devices (e.g., switches and relays). This rule requires that all generators of universal wastes properly send these wastes to an appropriate recycling facility if subject to a disposal ban, or to a suitable disposal facility. The rule also

includes tailored management standards to facilitate the recycling of these wastes. This rule builds upon the success of the mercury-containing lamp policy initiated in 1996. The invoice notification of lamps containing mercury, the promulgation of the universal waste rule, and the education and outreach activities outlined in this plan are expected to greatly improve the success of this removal and recycling effort by making it clear to generators that their wastes contain mercury and need to be managed properly.

Management of mercury-added household wastes

Many households have mercury-added products that become part of the household waste stream. These products include lamps, thermostats, switches, batteries, toys, and novelty items. As of January 1, 2005, these products may no longer be disposed of with household waste, but instead must be collected and recycled. DEP and SPO are working on a plan that will support the development of infrastructure and systems to capture these products and direct them to mercury recycling facilities.

Education & Outreach Initiatives by Product

Mercury-Added Lamps

What types of mercury lamps are out there?

Fluorescent and high-intensity discharge (HID) lamps are the most common types of mercury-added lamps used. The following is a listing of the types of mercury-added lamps:

- all shapes of fluorescent lamps
- compact fluorescent lamps
- mercury vapor lamps
- high pressure sodium lamps
- metal halide lamps
- neon lamps

Collection Programs/Other Programs

There are currently more than a dozen commercial firms that are servicing generators' lamp replacement and disposal needs. Most lamps removed by these businesses are being shipped to recycling facilities. In addition, one large consolidator of lamps operates in Portland. A number of municipalities are also currently collecting lamps for recycling through these entities.

With the adoption of the new Universal Waste Rule and changes in the Solid Waste Management Regulations, DEP and SPO will seek to support municipalities in handling waste mercury-added lamps at their solid waste and/or recycling facilities.

The Department has also compiled a list of recyclers and transporters for lamps along with a list of the proper management standards.

Looking towards the future

The goal in the immediate future is to continue to increase the percentage of mercury-containing lamps that are recycled. The Department ultimately hopes to achieve a recycling rate of at least 70%. Collection and recycling of lamps will be a component of the audience targeted training workshops the Department of Environmental Protection and the State Planning Office will be presenting.

Summary of education & outreach activities:

- Create guidance for proper lamp handling for recycling and a list of lamp recyclers and transporters. Make these widely available to businesses (1998-2001, DEP, S.L.*);

- Create web page with links to information on fish consumption advisories and DEP information on mercury studies, mercury labeling, and collection and recycling policies and programs for mercury-added products (2000-2001, DEP, S.L., G.Mc., K.W.);
- Present workshops on the mercury labeling law to businesses (2000-2001, DEP, E.M.)
- Present workshops on the universal waste rule, including the handling and recycling of mercury-added lamps, to businesses (2001, DEP, S.L./A.P.);
- Award grants to encourage the collection and recycling of mercury-added products including lamps (2000-2002, SPO, S.M.);
- Publish information related to mercury-added lamp collection program and infrastructure development, including grant opportunities, in *Recycle This!* (2000-2002, SPO, S.M.);
- Conduct workshops for municipal officials and solid waste facility operators to familiarize them with the intent of the universal waste rule and the options for handling waste mercury-added products including lamps (2000, DEP&SPO/J.G.&S.M.);
- Develop a guidance document for use by recycling and solid waste facilities on the handling and recycling of mercury-added lamps (2001, DEP, A.P.);
- Develop guidance documents and a potentially a training video for businesses on the handling and recycling of mercury-added lamps (2001, DEP, S.L.);
- Conduct training programs on the handling and recycling of mercury-added lamps for municipal officials, school custodial staff and solid waste facility operators (2001-2002, DEP, A.P.);
- Conduct four Clean State Initiative training sessions for staff from various state agencies, the university and technical college systems, and Maine Maritime Academy (2000-2001; DEP; S.L.)

*Initials indicate staff responsible for activity: S.A. – Scott Austin; D.K. – Deb Avalon-King; J.G. – Jim Glasgow; J.J. – John James; M.K. – Martha Kirkpatrick; S.L.- Stacy Ladner; D.L. – David Lennett; G.M. – George MacDonald; G.Mc – Ginger McMullin; E.M. – Enid Mitnik; S.M. – Sam Morris; S.P. – Sterling Pierce; A.P. – Ann Pistell; C.R. – Chris Rushton; K.W. – Karl Wilkins

Mercury-added Thermostats

What types of mercury thermostats are out there?

In 1995 there were more than 50 million mercury thermostats in homes and businesses across the U.S. The familiar round thermostat is probably the most common in homes in Maine; it contains approximately 3 grams of pure mercury metal in a sealed ampule.

Collection Programs/Other Programs

The Thermostat Recycling Corporation (TRC) is a not-for-profit corporation established by Honeywell, White-Rodgers and General Electric to operate a thermostat recycling program in several states including Maine. The program accepts all brands of mercury switch thermostats. Participating wholesalers place recycling containers at a convenient spot in their store. Contractors then collect out-of-service mercury thermostats as they replace them and put them in

the collection box when they go to the wholesaler to purchase new ones. When the collection container is full, the wholesaler places a UPS ARS label on the container (provided by TRC with the container) and has UPS pick the container up and transport it to TRC.

A replacement deposit fee of \$15 is required for each collection box. The shipping costs from the wholesaler to the Thermostat Recycling Corporation (TRC) and the cost of recycling are paid by TRC. When a full collection container is returned from a wholesaler, a replacement container is sent out for no additional deposit fee. If the program is terminated, deposit refunds will be paid when containers are returned.

Through this program the mercury inside old thermostats will be removed, recycled and used again in new thermostats or other products. This program is a good example of a “manufacturer take back” program where the manufacturer of the product takes responsibility for its ultimate disposal/recycling.

The DEP assisted in the establishment of mercury thermostat collection locations in Maine by:

- Sending TRC a list of thermostat wholesalers in Maine;
- Purchasing collection boxes and calling thermostat wholesalers to encourage them to participate in the program;
- Signing up the wholesalers that agreed to participate in the program;
- Delivering the boxes to the wholesalers and explaining how the program works;
- Developing a press release selling the program and encouraging other wholesalers to join the program and for heating contractors to begin using the program; and
- Developed a website explaining the program and listing the collection locations.

The department has also developed a list of contractors who will recycle mercury-added products, including thermostats, for businesses and generators.

Public service announcements (PSAs) about the recycling program have aired on local television stations. The DEP has also placed information on its web page about the recycling program (<http://janus.state.me.us/dep/rwm/hgthermo.htm>).

In addition, the department will be working with the heating contractor certification board to increase knowledge of the issues with mercury thermostats and to expand knowledge of the TRC collection program. Thermostat collection and recycling will be a component of the appropriate audience targeted training workshops that DEP and SPO will be presenting (see the “Audience Based Education & Outreach section).

Looking towards the future

Additional wholesalers will be contacted to attempt to increase participation in the program. In particular, wholesalers in the Presque Isle, Waterville/Winslow, Lewiston/Auburn, and Kittery areas will be targeted.

The department will also do yearly press release updates on the amount of mercury thermostats recycled through this program.

Table 1
Wholesalers Participating in Mercury Thermostat Collection and Recycling

Town	Company Name	Address	Contact	Phone Number
Augusta	Redlon & Johnson	314 State Street Augusta, ME 04330	Richard Drapeau	1-800-452-1990
Bangor	Webber Supply Inc.	32 Thatcher Street Bangor, ME 04401	Terry Cain	1-800-524-4141
Bath	Redlon & Johnson	9 Redlon Road Bath, ME 04530	Keith Yeaton	1-800-442-6720
Caribou	FW Webb Co.	420 Main Street Caribou, ME 04736	Dick Violet	498-2526
Ellsworth	Chas. Foster Co., Inc.	55 Foster Street Ellsworth, ME 04605	Robert Newman	667-5346
Kennebunk	Roland's Plumbing Supply	119 York Street Kennebunk, ME 04043	Roland LaRue	985-2130
South Portland	Webber Supply Inc.	17 Haskell Street South Portland, ME 04106	Terry Cain	942-7361

Revised 8/30/00

Summary of education & outreach activities:

- Educate wholesalers to TRC collection Program, including press release and on-site instruction in how to participate in program (2000, DEP/S.L.);
- Develop a webpage explaining program (2000, DEP/S.L.);
- Develop list of contractors who recycle mercury-added products, and distribute this list to businesses and generators (2000, DEP/S.L.);
- Develop and distribute press releases, and, as funds allow, develop and air public service announcements (2000-2001, DEP/S.L.);
- Work with DPFR to include thermostat collection and recycling component in training programs for heating professionals; (2001, DEP/S.L.); and
- Target wholesalers in the Presque Isle, Waterville/Winslow, Lewiston/Auburn, and Kittery for outreach designed to increase participation in TRC program (2001, DEP/S.L.).

Mercury-Added Thermometers

What types of mercury thermometers are out there?

Thermometers are used in monitoring cooking temperatures, recording ambient temperature, and recording the body's temperature. These are the most common types of thermometers and include oven, candy/jelly, deep fry, indoor/outdoor, fever and basal thermometers.

Collection Programs/Other Programs

DEP and SPO will investigate sponsoring or co-sponsoring a collection and exchange program for mercury fever thermometers as well as opportunities to partner with other entities conducting exchanges such as hospitals and publicly-owned treatment works (POTWs). Such a program will be most effective if the flow of new mercury fever thermometers is severely curtailed or eliminated. The extent of direct state involvement will depend on the availability of funding and the cooperation of other public and private entities. At the least, the Department and the State Planning Office could help arrange for and publicize such an exchange program to remove as many fever thermometers from use as possible.

The Department will produce a fact sheet on thermometers and a web page to inform the public about types of mercury thermometers and collection programs in their area. DEP has also developed a list of contractors that will recycle mercury-added products such as thermometers and lamps for businesses and large quantity generators.

The Department and SPO may develop PSAs about household hazardous waste issues relating to mercury including thermometers if this appears a cost effective way to reach consumers. Thermometers will also be a component of audience targeted training workshops the Department of Environmental Protection and the State Planning Office will be presenting.

Looking towards the future

The Department and the State Planning Office will encourage the on-going collection of mercury thermometers in household hazardous waste collection programs across the state, and the purchase of available non-mercury alternatives. Our education and outreach efforts will be tailored to the general public, as most mercury thermometers are found in the home.

Summary of education & outreach activities:

- Request (from DEP and Health Care Without Harm) Maine national retailers to voluntarily end retail sale of mercury fever thermometers (2000, DEP/M.K.);
- Create an informational piece and web page to educate public about mercury thermometers, substitutes, and recycling options (2001, DEP/S.L.);
- Develop list of contractors who recycle mercury-added products, and distribute this list to businesses and generators (2000, DEP/S.L.);

- Seek partners to work on a thermometer exchange and do targeted outreach program to promote any mercury-thermometer collection/replacement programs (2001, DEP/SPO); and
- Educate owners/operators of solid waste facilities to appropriate collection and handling of mercury thermometers for recycling (2001-2002, DEP, A.P.).

Mercury-added medical or scientific instruments

What types of mercury medical or scientific instruments are out there?

Mercury barometers and thermometers used in science classrooms.

Manometers

Weighted esophageal dilators (bougies)

Sphygmomanometer (blood pressure cuff)

Gastric compression tubes

Collection Programs/Other Programs

The Department and SPO are working with the Department of Agriculture to locate, remove and replace mercury manometers used by dairy farmers. This program began in August, 2000 and will continue through 2001.

Looking towards the future

The Department needs to develop educational materials and presentations appropriate to the school-based audience, including teachers and custodial staff. These efforts will seek to encourage the elimination of mercury-added products in schools, including thermometers and barometers.

The Department will continue to support efforts by the Maine Hospital Association (MHA), Health Care Without Harm (HCWH), and NRCM to initiate environmentally-friendly purchasing policies and other initiatives to reduce the use of mercury-added products in medical facilities across the state. This includes participation on MHA's Environmental Services Advisory Committee, a standing committee that works to maintain compliance with regulations and to stay up-to-date on issues as they develop. DEP's participation will include providing technical assistance on mercury management issues.

Summary of education & outreach activities:

- Outreach to Maine's dairy farmers on the mercury manometer replacement program, including the production of a brochure and education of Department of Agriculture dairy inspectors (2000-2001, DEP, C.R.)
- Participate in Department of Education teacher training workshops for junior high and high school science teachers to educate them about reducing/eliminating use of mercury and mercury-added instruments in their classrooms (2001-2002, DEP, A.P.)

- Partner with the Maine Hospital Association to develop a pollution prevention plan for mercury containing products and develop two seminars for the biomedical community covering hazardous waste issues, including universal waste rules, and alternatives to mercury-added products (2001, DEP, S.A., C.R. & D.L.).
- Co-sponsor with the Maine Hospital Association (MHA), Healthcare Without Harm (HCWH), and the Natural Resources Council of Maine (NRCM), a full day seminar entitled “Hospitals for a Healthy Environment”. Conference topics included: eliminating mercury, dioxin, and other toxics; environmentally preferable purchasing; and alternative approaches to medical waste treatment and disposal (2000, DEP&SPO, S.A., C.R., & G.M.).
- Hire/support the hiring of a consultant to help hospitals with their pollution prevention efforts (2000, DEP, C.R.).
- Participate in the Maine Hospital Association’s Environmental Services Advisory Committee (2000- on-going, DEP, S.A.)
- Utilize materials developed by NEWMOA’s E&O for Schools project to develop initiatives to reduce the use of mercury-added products in schools. (2001-2002, DEP, A.P.)

Switches, electrical relays and other mercury devices

What types of mercury switches, relays and other devices are out there?

Mercury switches are found in a variety of items ranging from chest freezers to sump pumps. Here are some examples of mercury-added switches, relays and other devices that are currently or have recently been in use:

- Float control (septic tank, sump, and bilge pumps)
- Freezer light control
- Washing machine (power shutoff when lid is opened)
- Silent switches (light switches that were available prior to 1991)
- Flame sensor (a.k.a. mercury-containing thermostat probe - used in residential and commercial gas ranges and other appliances; mercury is in a capillary tube when heated mercury vaporizes and opens gas valve or operates a switch)
- Automotive switches, such as hood, trunk, vanity mirror, glove box, and emergency brake lights
- Motion sensitive and position sensitive safety switches in clothes irons and space heaters
- Displacement/plunger relays
- Wetted reed relays
- Novelty items such as greeting cards, light up/musical pins, and jewelry
- Toys with mercury switch or button battery
- Toys with elemental mercury such as chemistry sets and maze games

Collection Programs/Other Programs

There are currently no targeted collection programs for mercury switches. The Department has developed a list of contractors who recycle mercury-added products, and distributes this list to businesses and generators.

38 M RSA §1665 requires automobile manufacturers that sell automobiles at retail in the state to submit to the DEP alternative plans that meet the intent of the labeling requirements for mercury-added products. Identifying where mercury-added components are in automobiles will allow the development of a system for removal, collection, and recycling of the mercury from these components. The Department is required to submit a plan for labeling and source separation of automobile component parts that contain mercury to the Legislature by January 1, 2002. Once this plan is approved, the DEP will implement E&O activities tailored to the plan as appropriate.

Looking towards the future

The Department will propose revisions to the Universal Waste Rule to include mercury devices, including mercury switches in the streamlined handling requirements. If this addition is adopted, collection programs for mercury switches could be added in to the infrastructure that develops for handling lamps and cathode ray tubes (CRTs).

Summary of education & outreach activities:

- Develop list of contractors who recycle mercury-added products, and distribute this list to businesses and generators (2000-on-going, DEP/S.L.);
- Educate owners/operators of solid waste facilities to appropriate collection and handling of mercury switches, electrical relays, and other mercury devices for recycling (2002, DEP, A.P.).
- Further develop the DEP web page on mercury to include general information and links to other mercury resources, as well as educational and policy materials developed by the DEP. (2001, DEP, E.M.)
- The DEP will convene and participate in an automobile stakeholders group to develop a plan for labeling and source separation of mercury-added components from automobiles for submission to the Legislature by January 1, 2001. Subsequent E&O activities will be based on the plan as appropriate. (2001, DEP, J.J.)
- As resources allow, the DEP will develop initiatives to educate contractors and service repairmen who handle/service appliances and renovators who handle silent switches about the proper handling and recycling of mercury switches. (2002, DEP, A.P.)

Audience Based Education and Outreach Activities

All our education and outreach activities are designed and targeted to reach a specific audience. Each audience has its own needs, concerns, and sources or systems for gaining information. However, our educational materials and efforts will commonly include some basic information about mercury as a toxic pollutant as well as appropriate source reduction options.

General Public

The Department of Environmental Protection (DEP) and the State Planning Office (SPO) have developed several information pamphlets for consumers about mercury-added products and their proper disposal. This information is also available on the DEP web page.

The “Safe H₂OME Program” was developed by the DEP, Bureau of Land and Water and the University of Maine Cooperative Extension. This program consists of the distribution of a reference packet of information for homeowners to help them understand how to protect their health, the health of their family, and the safety of their drinking water. Included in the packet are fact sheets and worksheets covering many topics, with the key items relating mercury-added product information being the Household Product Management Wheel and the pamphlet: “How Can I Safely Dispose of Household Hazardous Wastes?” This latter pamphlet was developed by the DEP Solid Waste Management Division, and has been distributed to all municipalities as well as in the “Safe H₂OME Program” packet.

In addition, the Department also has the following educational materials for use in educating the general public:

- Household Hazardous Waste Issue Profile
- Household Product Management Wheels
- Battery Issue Profile

The Department will continue to develop its web page on mercury to include additional information on mercury-added products and links to other mercury web resources as well as any additional educational and policy materials developed by the DEP. The DEP also publishes a weekly news column called “In Our Backyard”; this column has been a forum for disseminating information on mercury issues.

The DEP and SPO are developing a household hazardous waste (hhw) action plan that will:

- Delineate categories of household hazardous wastes;
- Describe management options for the various types of wastes;
- Include cost information for the different options and potential sources for funding;
- Make recommendations for the development of any necessary infrastructure to establish a statewide system for collection of hhw; and
- Describe educational activities needed to support the reduction in use of hazardous materials in the home and the collection of hhw.

This written plan will be completed in early 2001, and implementation will follow as funding and other types of support become available. Based on this plan, DEP and SPO will develop needed educational materials and develop training and outreach programs. This may include brochures, PSAs, training programs for solid waste facility operators, presentations, displays at fairs and other public events, and web page development.

Municipalities

In 2000 the Legislature approved a special one time allocation of \$438,000.00 from the Solid Waste Management Fund to develop safe handling options for mercury products and other problematic wastes. The use of these funds has been targeted roughly in thirds - 1/3 for education and outreach, 1/3 capital grants, 1/3 for expansion of existing programs. Following the adoption of the universal waste rule, SPO and DEP will be looking at a variety of sources both in house and from outside state government, for the development and delivery of education and outreach programs to several audience groups. These efforts will include pilot projects, sole source contracts, Requests for Qualifications and Requests for Proposals, and other mechanisms.

SPO will implement a simple grants procedure to award approximately \$280,000 in grants to assist in the management of universal wastes and household hazardous wastes. These monies will be earmarked to: 1) fund the establishment of a voluntary municipal collection infrastructure; 2) assist existing household hazardous waste programs to target mercury added products and universal waste for collection; 3) encourage the start up of new programs with the same objective; and 4) conduct a limited number of collections of targeted wastes, e.g., carbon tet fire extinguishers, mercury thermometers.

The SPO Waste Management and Recycling Program has worked for several years with municipalities to establish recycling programs. One of the major parts of this program is awarding grants for recycling programs throughout the state just like the new mercury containing recycling program. The Androscoggin Valley Council of Governments' (AVCOG) recycling program is one of the largest organized recycling programs operating in the state and covers the following municipalities:

Auburn	Greenwood	Oxford
Bethel	Jay	Paris
Bowdoinham	Lewiston	Peru
Byron	Lisbon	Poland
Carrabassett Valley	Livermore Falls	Rangeley
Carthage	Mechanic Falls	Roxbury
Dixfield	Mexico	Rumford
Durham	Minot	Sabattus
Farmington	New Sharon	West Paris
Fryeburg	Norway	Wilton
Greene	Otisfield	Woodstock

In March 1999, SPO signed a grant contract with AVCOG in the amount of \$6,000.00 for them to conduct a demonstration project for the collection and disposal of mercury containing products and household hazardous wastes. Under the terms of the grant, "Funds available from the State Planning Office shall be used for the education and training of the operators as well as in the improvements and equipment necessary at the participating solid waste facilities." To fulfill these terms, AVCOG staff held several solid waste operator forums, conducted a workshop at the annual recycling conference, produced and distributed an educational mercury products flyer, and generated several newspaper articles in regional newspapers. Eleven communities participated; for full details, see the final report on the project, available from SPO, DEP, and AVCOG.

In October 2000, SPO funded a grant proposal put forward by the Portland Water District (PWD). PWD's comprehensive program, developed to implement the requirements of LD 2038, (new discharge standards for mercury) is directed at all their customer groups, hospitals, dentists, industry, septic haulers, residential customers, and people living in the watershed. The \$10,000.00 grant contract funded in part: the production and distribution of: mercury information packets, "bill stuffers", public service announcements, advertisements in several media, media packets, environmental education in schools, sponsorships and posters, watershed resident informational flyers, a hazardous waste day collection (November 4th) and other activities as approved by SPO. This program potentially reached over 10% of the state's population.

DEP conducted four regional compliance training workshops for transfer station operators in August, 2000. These workshops included round table discussions of waste handling issues, including the proposed universal waste rule and the development of the option for transfer stations to handle waste mercury-added lamps. SPO also conducted their annual series of seven regional workshops in September and October of 2000 in Oxford, South Portland, Sanford, Waterville, East Machias, Caribou, and Orono. Some 120 municipal officials attended, including town managers, recycling coordinators, select persons, and local recycling/solid waste committee members. At each of the workshops, Public Law 779 "An Act to Reduce the Release of Mercury into the Environment from Consumer Products", was discussed. This discussion included identifying mercury-added products, important statutory dates and requirements, the disposal bans, state reimbursement for costs associated with mercury product collection programs, the proposed universal waste rule, education and outreach, and grant funds. Once the universal waste rule and parrallel changes to the solid waste rules are adopted, the DEP will develop guidance and present workshops for the safe handling of mercury-added products to solid waste facility operators and municipal officials.

The June 2000 edition of SPO's newsletter, Recycle This! contains a full-page article, "SPO and DEP Embark Upon HHW Action Plan," which discussed LD 2084 (PL779) including plans for education and outreach on the proposed universal waste rule and mercury products. This newsletter is mailed out to 1100 municipal officials and recycling contacts (880), school and university recycling coordinators, and all local Chambers of Commerce. The December, 2000 edition of "Recycle This!" explains the intent of the new universal waste rule as well as the availability of funding for municipalities to develop infrastructure to collect and recycle those waste, including receiving funding for sheds for storage of universal wastes. SPO will send a

letter to municipalities in early 2001 soliciting applications for grant monies to begin developing this infrastructure.

Schools and Teachers

DEP and SPO will develop educational components on recycling and reducing the use of mercury-added products in schools appropriate for use in teacher and school custodial staff training programs. DEP staff will also offer presentations in these training programs. DEP will also review and utilize as appropriate any E&O materials developed by NEWMOA for use in schools.

Education materials for the classroom

The DEP and SPO will identify curricula that do not use mercury or mercury-added products and make these available to elementary and high school teachers, and add mercury containing products to the recycling information in any educational packets. The DEP is working on developing a newspaper for use as a teaching tool on mercury in the environment. The DEP is working with the New England Governors and Eastern Canadian Premiers workgroup membership in drafting this newspaper and other materials.

School laboratories/science teachers

In September and October of 2000, DEP staff participated in teacher training workshops around the state. The workshops were an outreach program of the Maine School of Science and Mathematics designed to educate middle and high school science teachers in how to reduce the use of hazardous materials in the classroom and the proper handling of these materials. This included a segment by DEP on mercury reduction and recycling.

Maintenance personnel for school facilities

The Department of Education holds an annual workshop for all custodial staff from school systems throughout the State. The DEP will work with the Department of Education to include a workshop on universal waste rule and recycling options for school systems.

State Facilities

State Buildings

The State has begun workshops on the Clean State Program to address environmental issues for maintenance and operation of the State owned buildings. The first of four Clean State Initiative training sessions was held recently. Thirty staff from various state agencies, the university and technical college systems, and Maine Maritime Academy attended. Various DEP staff spoke on hazard communication, hazardous waste, solid waste, underground tanks, sedimentation and erosion control, natural resource protection, floor drains, and sand/salt sheds. The recycling of fluorescent lamps was discussed as part of the hazardous waste presentation. Additional training sessions will be offered in 2001.

Universities/colleges

In 2001, Department staff will attend a meeting of the university environmental coordinators to discuss the mercury labeling law and the universal waste rules.

Businesses

The DEP will present two seminars in conjunction with the pollution prevention program aimed at the composites industry (i.e.: fiberglass resins and plastics). This will include the hazardous waste rule, including universal waste, mercury and alternatives. This should be offered in February and March 2001.

In conjunction with General Electric – Lighting Division, the DEP presented two workshops for customers of Grainger Supply in Portland and GE Supply in Bangor. The DEP will present workshops of this type upon request in the future.

The DEP will be presenting workshops on the universal waste rules throughout the state in 2001. The mercury product labeling law will also be covered in these workshops. In addition, simple educational materials will be produced. The Department is also pursuing the possibility of producing a video on proper management of universal wastes for use by businesses.

Hospitals/Medical Facilities

The DEP has developed an issue profile on related topics entitled “Mercury Management in the Health Care Environment”.

The DEP will develop two seminars for the biomedical community to be held in 2001. This sector includes, hospitals, dentists, doctors, veterinarians, morticians, tattoo parlors, home health care providers, nursing homes and school clinics. These seminars will cover among other things hazardous waste issues, including universal waste rules, mercury and alternative.

The DEP is also working with the Hospitals Association of Maine to develop the pollution prevention plan for mercury containing products. A full day seminar entitled “Hospitals for a Healthy Environment” was held in November, 2000. This was a joint venture between the Maine Hospital Association (MHA), Healthcare Without Harm (HCWH), the Natural Resources Council of Maine (NRCM), the State Planning Office, and the DEP. Seventy-five people representing 26 hospitals attended. Conference topics included: eliminating mercury, dioxin, and other toxics; environmentally preferable purchasing; and alternative approaches to medical waste treatment and disposal. In addition, the DEP, MHA, and HCWH each pledged \$10,000 toward the hiring of a consultant to help hospitals with their pollution prevention efforts.

Dentists

The DEP is working with a workgroup to develop a pollution prevention plan for dental offices in the State. Part of this plan will be an education and outreach component for dentist and their staff. The DEP will also develop education materials on mercury amalgam fillings and information on alternatives to mercury amalgam for distribution to the general public.

Automobile manufacturers

The DEP is working with the industry to develop a plan to identify and label mercury-added components used in the manufacture of vehicles. The DEP will also work with the industry on a program to educate the automobile recycling industry to identify and remove these mercury-added components before the automobiles are recycled. A report to the Legislature that provides for the safe removal and management of mercury-added automobile parts prior to shredding is due from DEP on January 1, 2002.

Farmers

The DEP and the Department of Agriculture (DA) developed a mercury manometer collection and information brochure for the Maine Farm Event held in August 2000. The brochure, "Maine's Voluntary Mercury Manometer Replacement Program, Does Your Milking System have a Vacuum Gauge with Mercury in it?", was distributed at the event. The Department of Agriculture inspectors also distribute the brochure when they inspect the dairy farms. The DEP and the Department of Agriculture hope to replace all of the active mercury manometers and educate the farmers on the new digital manometers by the end of 2001.

Waste Water Treatment Plants

All wastewater treatment plants (WWTP) are required to develop and implement a pollution prevention plan by April, 2000. In response to this requirement, many WWTPs are developing initiatives to reduce the amount of mercury that enters the treatment plant in wastewater from households and businesses. These efforts may include sponsoring household hazardous waste pick up days, bill stuffers to educate consumers to reduce use of and recycle mercury products, and working with businesses in their districts to reduce mercury inputs into the wastewater system.