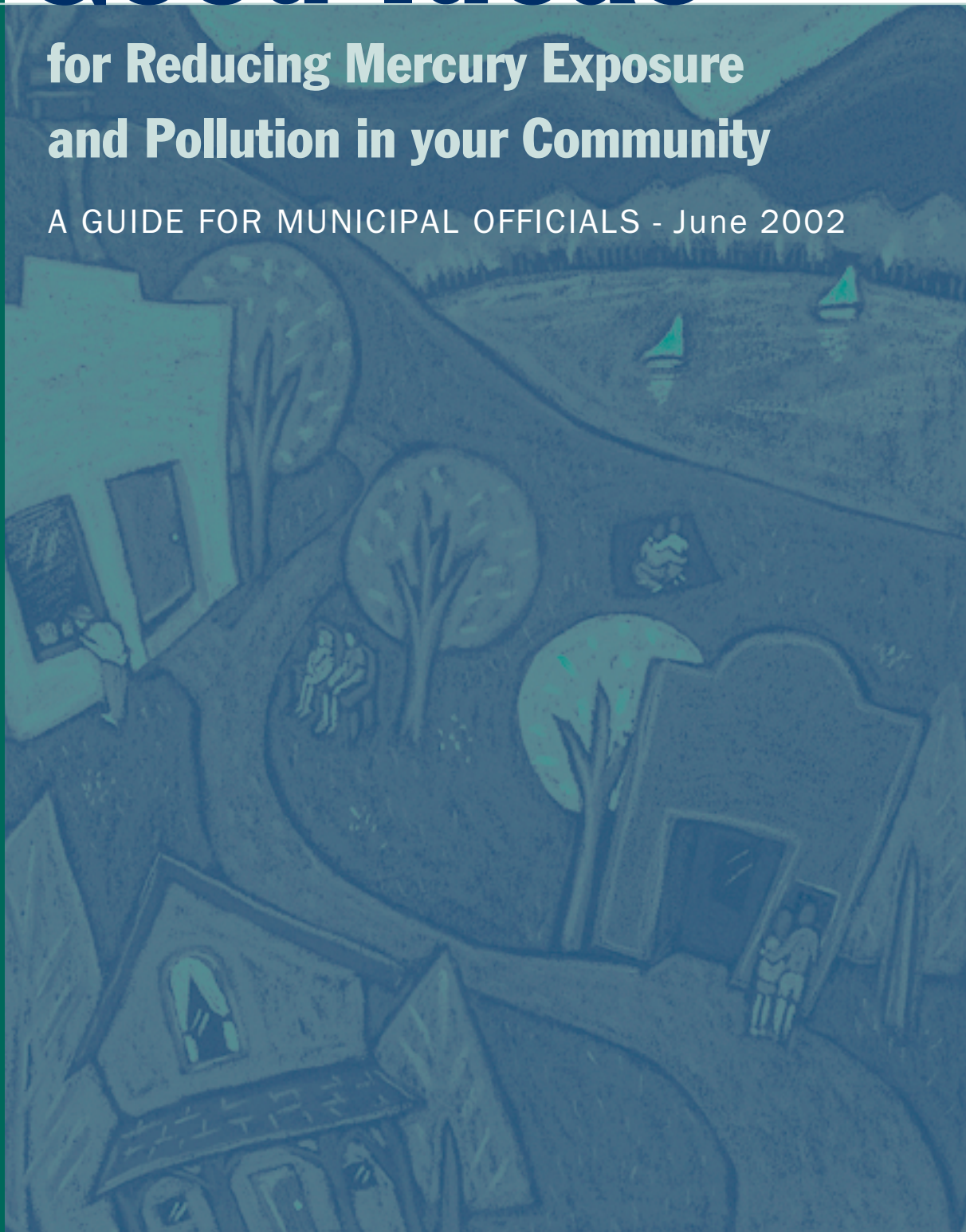


8 Good Ideas

for Reducing Mercury Exposure and Pollution in your Community

A GUIDE FOR MUNICIPAL OFFICIALS - June 2002

As a municipal official with responsibility for some aspect of public health or environmental protection, you have many complex and important issues vying for your attention. This brochure is intended to assist you in dealing with one of those issues – **MERCURY**. Because mercury has been getting a great deal of media coverage recently, it is a good time to implement mercury outreach, collection and reduction programs. Here are “8 Good Ideas” to assist you.



1 Make Mercury a Priority – Here’s Why

Mercury is toxic. It affects the brain, liver and kidneys and can cause developmental disorders in children. Young children and developing fetuses are especially at risk.

Exposure most commonly occurs by **eating fish contaminated with mercury** or by **breathing mercury fumes**.

One pound (approximately two tablespoons) of mercury is enough to contaminate almost two million pounds of fish.

One broken thermometer, if not properly cleaned up, can lead to indoor air mercury levels that exceed guidelines for safety from the U. S. Environmental Protection Agency.

The Mass. Department of Public Health (DPH) advises that women of childbearing age who may become pregnant, pregnant women, nursing mothers and children under the age of 12 should not eat Massachusetts freshwater fish, except those that are farm-raised or stocked.

People in these groups should also refrain from eating the following marine fish: shark, swordfish, king mackerel, tuna steak and tilefish, and should eat no more than 12 ounces (or about 2 meals) per week of fish not covered by existing advisories, including canned tuna.

DPH has also issued fish consumption advisories for the general public on over 80 water bodies in the state.

*The New England Governors and Eastern Canadian Premiers have called for the **virtual elimination of mercury pollution** in the northeast. The Massachusetts Executive Office of Environmental Affairs (EOEA) has also adopted a state-wide Zero Mercury Strategy.*

2 Identify Sources of Mercury in Your Community

Mercury is found in a variety of consumer products and building equipment. Familiarize yourself with the items that contain mercury. Common examples include: mercury blood pressure devices, mercury thermometers, mercury thermostat probes and flame sensors in appliances, mercury thermostats, mercury barometers, mercury manometers, mercury switches (e.g., in some fire alarms, sump pumps, water heaters), fluorescent and high intensity discharge lamps (commonly used in gymnasiums and parking lots), button cell batteries, elemental mercury, dental amalgam, and some chemistry sets.

Some pharmaceuticals, detergents and disinfectants may contain mercury compounds.

Project Idea – Perform an inventory of mercury materials in municipal buildings and implement a plan for proper handling and recycling once these materials become waste.

The largest contributors of mercury in the municipal solid waste stream are as follows:

- fluorescent lights
- mercury fever thermometers
- mercury thermostats and switches

Some common places where significant quantities of these materials are found include the following:

- manufacturing facilities
- schools
- municipal buildings
- households
- health care and long-term care facilities
- plumbing and electrical supply stores
- educational institutions and laboratories
- dental offices



Over forty percent of the lakes and ponds tested in Massachusetts have one or more types of fish with unsafe levels of mercury.

Project Idea – *Convince your community to implement a municipal purchasing policy that chooses non-mercury products over those that contain mercury.*

3 Choose a Specific Sector to Work With or Focus On a Particular Product

Because it is so pervasive, addressing the mercury issue can be overwhelming at first.

Start by working with one sector, such as hospitals and clinics, dentists, schools or scrap metal recyclers. Partner with these organizations to identify, collect and recycle mercury products and replace them with non-mercury alternatives.

Alternatively, start your program by focusing on one product, such as fluorescent lights, mercury fever thermometers or mercury thermostats.

Project Idea (sector approach) – *Work with your schools. Almost all schools have mercury materials. A recent mercury inventory in a Massachusetts high school uncovered nearly forty pounds of elemental mercury, mercury-containing lab thermometers, barometers, molecular vibration tubes, and various mercury compounds. The school was already recycling their fluorescent bulbs. The nurse's office and maintenance areas may also have mercury devices. See <http://www.newmoa.org/prevention/mercury/schools/checklist.cfm> for a list of many possible mercury devices found in schools.*

Project Idea (sector approach) – *Franklin County Solid Waste Management District worked on a project to identify and remove mercury switches and thermostat probes from **white goods** prior to recycling (<http://www.epa.gov/region5/air/mercury/appliancereport.html>). This prevents the mercury from being released to the environment during recycling.*

Project Idea (product approach) – *Work with local heating and plumbing contractors to collect and recycle **mercury thermostats**. The Thermostat Recycling Corporation (TRC) has a free take-back program for the customers of participating wholesalers (not households). Check their website to see if any of your local wholesalers are participating in the program (http://www.nema.org/index_nema.cfm/664/). If they are, they may need some assistance promoting the program and if they aren't, convince them to join in!*

Project Idea (product approach) – *Organize mercury product collections for local businesses, for example, **fluorescent lights**. The municipality can arrange for the time, location, drop-off and pick up, and the businesses can pay a fee based on how many items they bring. The Burlington Board of Health has arranged such a program (<http://208.58.133.9/health/Mercury.htm>).*

4 Enact Local Bylaws

Some communities have found it useful to enact local bylaws in order to reduce mercury pollution.

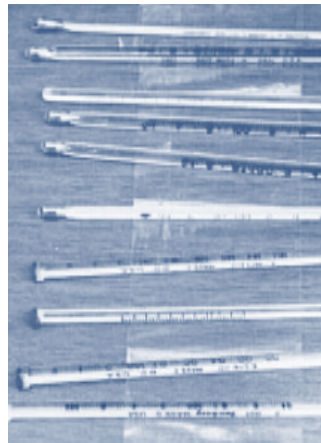
Example: Since January 1998, the Burlington Board of Health has required that all local businesses develop a written policy outlining how they will manage their universal waste. In addition, prior to initiating any site renovation or demolition, a property owner must indicate in their re-development proposal how they will properly handle mercury materials, in addition to other hazardous components.

5 Capitalize On Existing Programs and Resources

Add mercury collections to other programs. For example, advertise and collect mercury items at your next **household hazardous products collection**. Or organize a mercury fever thermometer exchange on the day of your collection. Many municipalities have found this to be a great way to collect mercury and promote their household hazardous product collections.

Utilize state and local resources to assist you in implementing your program. Explore opportunities for assistance with mercury thermometer and other collection events with your municipal solid waste facility, the EOE, Department of Environmental Protection (DEP), and local health organizations. Assistance might include free or subsidized non-mercury thermometers, information brochures or assistance with recycling costs. A state-sponsored school clean out project is underway. Encourage your schools to check it out.

Project Idea - *Organize a local **mercury fever thermometer exchange**. Last spring, the city of Ashland collected nearly 600 mercury fever thermometers from residents at their Household Hazardous Products collection. Beth Israel Deaconess collected over 1,000 mercury fever thermometers from employees on a single day. In a state-wide effort with almost 400 pharmacies participating, the EOE and DEP collected approximately 85,000 mercury fever thermometers over a two-week period.*



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6 Publicize Your Efforts

If your mercury project involves the public, one key to success is publicity. The following are potential mechanisms for advertising your event or program.

- public service announcements
- advertisements in local newspapers or newsletters
- cable access network announcements or interviews
- brochures
- flyers
- pamphlets
- posters
- websites

Tips for advertising mercury events and **example advertisements** used for mercury fever thermometer exchanges are available and can be downloaded from the following website and edited for your specific purposes: <http://www.newmoa.org/Newmoa/htdocs/prevention/mercury/schools/publicize.cfm>

Don't forget that one of the benefits of publicizing your event is the opportunity to educate the public about mercury exposure and pollution and what they can do.

People can reduce their exposure to mercury by **choosing non-mercury products** (e.g., digital or forehead fever thermometers, digital thermostats) and by **making informed decisions about fish consumption**.

People can reduce mercury pollution by **conserving electricity** and by **properly handing waste products** that contain mercury.

7 Properly Collect, Handle and Recycle Mercury

Whatever project you choose, be sure to handle the mercury responsibly, with care to avoid exposure. Wherever mercury devices are present, a plan should be in place to properly handle potential **mercury spills**.

Under its Municipal Recycling Grant Program, the DEP provides **storage sheds** for mercury-containing materials. The sheds enable communities to store collected mercury devices. Communities with sheds can offer businesses and residents opportunities for on-going collections.

Most unwanted mercury devices are considered hazardous wastes; however, to encourage their collection and recycling, the devices can be handled as **universal wastes** (a special category of hazardous waste) See the DEP fact sheet “Universal Waste Rule in Massachusetts: Information for Small Quantity Waste Generators” (<http://www.mass.gov/dep/recycle/files/univrule.doc>).

Massachusetts has a state contract for recycling fluorescent bulbs and mercury devices. The current company on state contract for this service can be found by going to <http://www.comm-pass.com>, clicking on the word “search,” scrolling down to the end of the page and typing “FAC26” into the box for “Contract Reference Number.” Alternately, contact Marcia Deegler of the Massachusetts Operational Services Division at 617-720-3356 or Marcia.Deegler@osd.state.ma.us.

8 Utilize Existing Information Sources

In addition to those mentioned in the previous 7 Ideas, following are sources for information about mercury.

General Mercury Information & Spill Clean Up Guidance

See the website of the Massachusetts Department of Environmental Protection (<http://www.mass.gov/dep/bwp/hgres.htm>) and the 1996 report “Mercury in Massachusetts” (<http://www.mass.gov/dep/files/mercury/hgtoc.htm>)

Fish Advisories

Consult the DPH website (<http://www.mass.gov/dph/media/2001/PR0724.HTM>)

Health and Long-Term Care Facilities

Mercury Waste Virtual Elimination Model Plan by the US EPA and the American Hospital Association (<http://www.epa.gov/seahome/mercmodeplan/manualpart1.pdf>), and the Sustainable Hospitals website (<http://www.sustainablehospitals.org>)

Dentist Offices

The Northeast Waste Management Officials’ Association has created a “Mercury in Dentistry” Topic Hub with links to many useful documents. (<http://www.newmoa.org/prevention/topichub/>)

Thermometer Swaps

Health Care Without Harm has written guidance on organizing mercury fever thermometer swaps (http://www.noharm.org/index.cfm?page_ID=12).

Hazardous Waste

See DEP’s Summary of Requirements for Small Quantity Generators of Hazardous Waste (<http://www.mass.gov/dep/bwp/dhm/files/sqgsum.doc>).

Burlington Board of Health

The Burlington Board of Health has a very useful website on mercury (<http://208.58.133.9/health/Mercury.htm>).

If you need any additional mercury information or have difficulties acquiring the referenced documents, please contact the Mercury Hotline at 1-866-9MERCURY (1-866-963-7287).

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- 2 Identify Sources of Mercury in Your Community
- 3 Choose a Specific Sector to Work With or Focus On a Particular Product
- 4 Enact Local Bylaws
- 5 Capitalize On Existing Programs and Resources
- 6 Publicize Your Efforts
- 7 Properly Collect, Handle and Recycle Mercury
- 8 Utilize Existing Information Sources



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