



MERCURY

A WASHINGTON TOXICS COALITION FACT SHEET · AUGUST 2006 · PAGE 1

Mercury: Persistent Pollutant with Lethal Impacts

Mercury is an extremely toxic substance that can have devastating impacts on human health and wildlife. Mercury does not break down in the environment. It builds up in the food chain and our bodies and is passed on to our children. Mercury belongs to a class of dangerous chemicals that have left a toxic legacy around the globe. This class of chemicals, often referred to as PBTs (persistent bioaccumulative toxics), also includes dioxin and PCBs.



Programmable, electronic thermostats, such as the one at left, do not contain mercury, as do their traditional counterparts, such as the one at right.

Mercury is a potent neurotoxin that attacks the body's central nervous system. Since mercury is passed from mother to child across the placenta and via breast milk, it poses particularly high risks for the fetus and young child. Mercury exposure can cause permanent damage to the brain, with effects ranging from hearing and visual problems to mental retardation and learning disabilities. People are exposed to mercury through a wide variety of sources, but one of the most common is through eating fish. Fish consumption advisories for mercury are increasing faster than for any other pollutant. Consider these disturbing facts:

- According to EPA estimates, 1.16 million women of childbearing age eat enough mercury-contaminated fish to pose a risk of harm to their future offspring (Greater Boston Physicians for Social Responsibility 2000).
- The National Academy of Sciences estimates that 60,000 infants that are born each year are at risk of neurological problems caused by exposure to mercury in the womb (National Academy of Sciences 2002).

- Due to mercury contamination, Washington State has issued warnings about eating fish from Lake Whatcom, Lake Roosevelt, Sinclair Inlet, and Eagle Harbor, and has issued a state-wide advisory for large- and small-mouth bass (Washington State Department of Health, Fish Advisories 2006).
- In April 2001, the Washington State Department of Health issued a fish-consumption advisory warning women of childbearing age and children under six not to eat any shark, swordfish, tilefish, king mackerel, or tuna steaks (Washington State Department of Health 2001).

Sources of Mercury in Washington

There are a large number of sources of mercury pollution in Washington. According to the state Department of Ecology, the largest sources of mercury include mercury products such as thermometers, thermostats, auto switches, and compact fluorescent light bulbs; the coal-burning power plant in Centralia; various industrial releases from pulp and paper mills and other industries; dental offices; and incinerators and other waste combustors.

Mercury products are one of the largest source of mercury in the state. Between 1,733 and 3,356 pounds of mercury in products are estimated to be disposed of each year. The largest sources include:

- fluorescent lamps (505-1,839 pounds)
- thermostats (444 pounds)
- dental amalgam from dental facilities (404 pounds)
- auto switches (219 pounds)
- thermometers (11-300 pounds)

Alternatives to Mercury

There are cost-effective alternatives to most mercury-added products. Most pharmacies and many other stores now sell non-mercury digital thermometers. Many car manufacturers have already replaced mercury switches with non-mercury switches in new cars at the increased cost of only ten cents per switch. Electronic, digital thermostats that are more energy efficient than mercury thermostats are also readily available.

Other solutions include:

- Coal burning should be replaced by cleaner sources of power, energy efficiency, and conservation.
- Mines must stop dumping mercury-laden wastes.
- Solid-waste and medical-waste incinerators should be shut down to make way for much more aggressive waste and toxicity reduction, reuse, recycling, and composting programs.

Vision for the Future: Mercury Solutions

The state Department of Ecology launched a visionary policy in 1998 to phase out mercury, dioxin, and other persistent pollutants. This plan puts the state down the right path for protecting public health and the environment. As part of the plan, the Department targeted mercury as the first pollutant to take concrete actions on to reduce and eliminate releases into the environment. These actions include working with dental offices, hospitals, and auto recyclers to help them reduce the amount of mercury they use and discharge; setting up recycling programs for fluorescent light bulbs, button cell batteries, and other mercury-containing products; and testing fish for mercury pollution.

For more information on the Department's mercury phaseout activities, visit www.ecy.wa.gov/mercury/index.html

Mercury Reduction Bill Signed into Law in 2003

On May 14 2003, Governor Gary Locke signed into law an important bill to reduce mercury pollution in Washington state. The Mercury Education and Reduction Act reduces mercury in schools, hospitals, and homes by banning the sale of certain mercury consumer products, and requiring hospitals to develop plans for reducing the use of mercury products.

Specifically, under the Act, it became illegal on January 1, 2006, to sell:

- Mercury thermometers and blood pressure devices,
- Mercury-containing toy novelty items, and
- Mercury auto switches.

It is also illegal to install or reinstall mercury thermostats unless the manufacturer of the thermostat participates in a thermostat recycling program.

For a copy of the Act visit: <http://apps.leg.wa.gov/RCW/default.aspx?.cite=70.95m&full=true>

What You Can Do

The passage of the mercury bill was an important step forward in preventing mercury pollution in Washington state. However, the Department of Ecology still has a lot of work to do to address some of the largest sources of mercury pollution, including coal plants, incinerators, dental offices, and mines. In addition, important work to test fish for mercury and other toxics must be continued so that the Department of Health can issue health warnings to consumers if necessary.

Right now, the Department of Ecology is rewriting regulations for mercury emissions from coal-fired power plants. Please contact the Department of Ecology and ask them to protect public health and the environment from harmful mercury pollution by adopting stringent regulations for coal plants. Send your comments to Elena Guilfoil, egui461@ecy.wa.gov.

Contact us at 206-632-1545 or visit our website for the latest information on current activities and to find out how you can get more involved.

References

- Connor, T., Shook, L. 1998. Burned: The Life and Times of Spokane's Incinerator. From website <http://www.cqs.com/wheel.htm>.
- Greater Boston Physicians for Social Responsibility. 2001. *In Harm's Way: Toxic Threats to Child Development*.
- Hansen, Idell. 2002. Personal communication with employee of Washington State Department of Ecology.
- National Academy of Sciences. 2000. National Research Council. *Toxicological Effects of Methylmercury*.
- Washington State Department of Ecology. February 2003. Washington State Mercury Chemical Action Plan.
- Washington State Department of Health, Fish Advisories. 2006. http://www.doh.wa.gov/ehp/oehas/EHA_fish_adv.htm.
- Washington State Department of Health. 2001. News Release: *State Issues Fish Consumption Advisory: Too much Mercury*.