Mercury is a neurotoxic, heavy metal that is linked to numerous health effects in wildlife and people. Mercury can be found throughout hospitals in products such as thermometers, sphygmomanometers, dilation and feeding tubes, batteries, fluorescent lamps, thermostats, and bleach.

The most likely routes of exposure are inhalation of inorganic mercury vapor after a spill or during a manufacturing process, or ingestion of methylmercury from contaminated fish.

Mercury can pose a significant health threat when spilled in a small, poorly ventilated room.

A report issued by the National Academy of Sciences National Research Council estimated that every year 60,000 children are at risk of being born in the United States with neurological problems that could lead to poor school performance because of exposure to methylmercury in utero.

A study by the Centers for Disease Control estimated that 1 in 10 women currently have mercury levels in their bodies high enough to cause neurological effects in their offspring.

There is approximately 1 gram of mercury in a typical fever thermometer. This is enough mercury to contaminate a lake with a surface area of about 20 acres, to the degree that fish would be unsafe to eat.

All five Great Lakes and over 2500 North American lakes contain fish consumption warnings due to mercury contamination.

In March 2001, the FDA released a consumer advisory that warned pregnant women not to eat shark, swordfish, king mackerel or tilefish, because they contain enough mercury to damage the fetus’s nervous system. Young children, nursing mothers and women who may become pregnant were advised to avoid those fish as well.

Hospitals contribute 4-5% of the total wastewater mercury load.

There is up to 50 times more mercury in medical waste than in general municipal waste, and the amount of mercury emitted from general medical waste incinerators averages more than 60 times that from pathological incinerators.

Medical and solid waste that contains mercury or has been contaminated by mercury is considered hazardous waste and should be kept out of the waste stream.

In 2000, the mercury from fever thermometers accounted for 17 tons or 10% of mercury in the municipal solid waste stream.

In 2000, mercury from batteries made up 98 tons or 57% of mercury in the municipal solid waste stream.

Legislation banning the sale of mercury thermometers has been passed in the cities of Duluth, MN; Ann Arbor, MI; San Francisco, CA; Boston, MA; Chicago, IL; and in the states of Maryland, Maine, Minnesota and New Hampshire. Legislation is pending in a host of other cities, states and in Congress.
Notes


iii. Personal Communication, Jamie Harvie, PE. Institute for a Sustainable Future. 218-525-7806.


v. Personal Communication, Western Lake Superior Sanitary District, Duluth, MN.

vi. USEPA. Mercury in Medical Waste: Keeping Mercury out of Medical Waste. www.epa.gov/reg5oair/glakes/fact1.htm

vii. USEPA. Background Information on Mercury Sources and Regulations. www.epa.gov/igrlakes/bnsdocs/merc_srce/merc_srce.html#Table 2B

viii. USEPA. Background Information on Mercury Sources and Regulations. www.epa.gov/igrlakes/bnsdocs/merc_srce/merc_srce.html#Table 2B