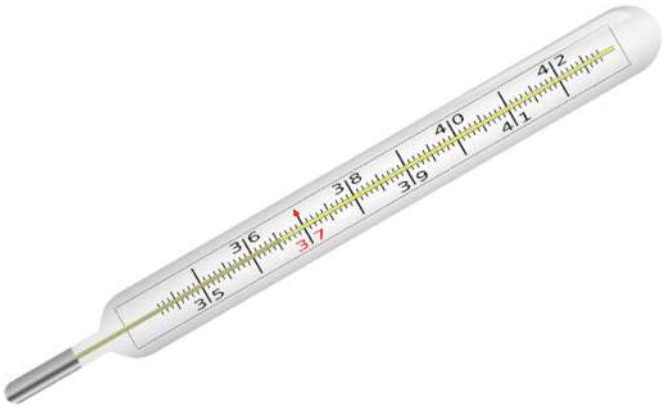
Mercury Pollutant Minimization Program (PMP)

Introduction

Mercury is a naturally-occurring element that is found in air, water, and soil. It exists in many forms including elemental (Hg) or metallic mercury, inorganic mercury compounds, and organic mercury compounds. Pure mercury is a liquid metal, and is commonly referred to as quicksilver which volatilizes readily. It has traditionally been used to make many common products including thermometers, switches, and some light bulbs. The use of mercury has been reduced or eliminated in many new products because of the findings that mercury is highly toxic in both liquid and gaseous forms.



The City of Oshkosh is required by the Wisconsin Department of Natural Resources (DNR) to meet discharge limits for a number of parameters, including mercury. These limits are set forth in the Wisconsin Pollutant Discharge Elimination System (WPDES) permit issued to the City's Wastewater Treatment Plant. The current discharge limit is 3.6 ng/L. That's 3.6 parts per trillion!

In addition to the numerical discharge limit, the permit also requires the City to implement and maintain a mercury Pollutant Minimization Program (PMP). This program was initially developed in 2006, and its purpose is to educate and inventory known commercial/industrial sectors which are traditionally likely to use various forms of mercury. These sectors include dental offices which place or remove amalgam, schools, hospitals/veterinary clinics, and industries within the Pretreatment Program. These sectors are being expanded to include HVAC contractors, salvage yards, and commercial/industrial entities not monitored by the Pretreatment Program.

Mercury's Impact on the Environment

Mercury makes its way into our waterways indirectly and directly. No matter how it gets there, it can have detrimental effects on the health of the system. Airborne mercury can fall to the ground in precipitation, in dust, or simply by gravity (known as "air deposition"). After it falls, it can end up in the waterbody where it can be transformed into methylmercury by natural microbial activity. Methylmercury accumulates in fish that could harm them, and other animals that eat them. Direct dischargers, such as municipal Wastewater Treatment Plants (WWTPs), also contribute to the problem, which is why only extremely low limits are permitted, and source elimination is always at the forefront to keep mercury out of our waters.

Mercury's Impact on Your Health

Exposure to mercury at high levels can harm the brain, liver, heart, kidneys, lungs, and central nervous and immune systems of people of all ages. Usual exposure is through ingestion or inhalation, but it is also easily absorbed through the skin. Research has shown that most people's consumption of fish does not cause health concerns; however, high levels of methylmercury in unborn babies and young children may harm them developmentally, leading to a hindered ability to think and learn.

Mercury Spills and Cleanup

Cleanup Instructions

1. Put on rubber, nitrile, or latex gloves.

2. Carefully pick up any broken pieces of glass or sharp objects and place them on a paper towel. Fold the paper towel and place in a zip-lock bag.

3. Locate visible mercury beads. Use the squeegee or piece of cardboard to gather the beads.

4. Use the eyedropper to draw up the mercury beads. Slowly and carefully squeeze the mercury beads onto a damp paper towel. Place the towel in a bag. Label the bag as directed by your local health or fire department.

5. After removing larger beads, put shaving cream on top of a small paint brush and gently "dot" the affected area to pick up smaller, harder-to-see beads. Use sticky tape to pick up any remaining small shards of glass. Place the paint brush and tape in a zip-lock bag and secure. Label the bag appropriately.

6. Contact your County Health Department, City Fire Department, or the City's Pretreatment Coordinator for proper disposal in accordance with local, state, and federal laws.

7. Keep the area well ventilated to the outside (i.e., windows open and fans exhausting to outside) for at least 24 hours after cleanup. Continue to keep pets and children out of the cleanup area. If sickness occurs, seek medical attention immediately.

Mercury in the Household

Products That May Contain Mercury:

- Thermometers (silvery liquid)
- Thermostats
- Blood-pressure cuffs
- Barometers
- Fluorescent and high-intensity discharge (HID) bulbs
- Mercurochrome
- Auto switches
- Float switches
- Button-cell batteries
- Old latex paint (pre-1990)
- Some oil-based paints
- Old alkaline batteries (pre-1996)
- Old light-up tennis shoes (pre-1997 LA gear)
- Chemistry sets
- Old fungicides for seeds and turf
- Dental amalgam
- Some imported jewelry (glass ampules with silver liquid)
- Weight/counterweight in grandfather clocks

Questions?

For questions about the City of Oshkosh's Mercury Pollutant Minimization Program (PMP), or to inquire about recycling/disposal of mercury, please contact:

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