



# CITY OF MISHAWAKA

David A. Wood, MAYOR

WASTEWATER TREATMENT DIVISION

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## **Mercury Pollutant Minimization Program Plan (PMPP)**

New EPA regulations place extremely low limits on mercury discharges from wastewater treatment plants. Mishawaka's Wastewater Treatment Plant currently has effluent mercury levels greater than the recently adopted effluent limit of 1.3 parts per trillion (ppt) in approximately 30% of samples. A part per trillion is the equivalent of one-inch in 16 million miles!

Treatment plants must meet extremely stringent requirements for mercury levels in treated effluent. If they cannot meet these limits (few can), they are required to implement a Pollutant Minimization Program to help educate citizens, businesses and industries about mercury and how they can reduce the amount of mercury that they discharge to the treatment plant.

Wastewater treatment plants are not designed to specifically remove mercury; however Mishawaka's treatment plant removes over 90% of the mercury that flows into the facility. Even this impressive removal rate is not sufficient to reliably meet the limit of 1.3 ppt. Installing equipment to remove mercury below the limit is unrealistic. The only cost-effective way to meet mercury limits is to reduce mercury discharges into the treatment facility from users of the sanitary sewer system. This is known as source control. The Mercury Minimization Program's intent is to reduce the amount of mercury that enters the wastewater treatment plant.

### ***What is Mercury?***

Mercury is an element recognized on the periodic table as the chemical symbol Hg and an atomic number of 80. It is a heavy, silvery metal that is liquid at room temperature. Mercury can also be found in organic compounds. The liquid metal form emits invisible, odorless, toxic vapors.

### ***Where It Can Be Found***

There has been a growing effort to eliminate non-essential uses of mercury due to its toxic properties. However, a large number of mercury containing items can still be found in the marketplace even though some manufacturers have taken steps to reduce or eliminate the use of mercury in their products. Some products that contain mercury include electrical tilt switches, thermostats, certain batteries, dental amalgam, laboratory and medical equipment including measuring instruments such as thermometers, manometers, and barometers. Fluorescent lamps and compact fluorescent lights (CLFs) manufactured today also contain a small amount of mercury sealed within glass tubing.

Organic mercury compounds are recognized as the form of most concern because they are very soluble, mobile, and capable of bioaccumulation. The most common examples of organic mercury include methyl mercury and ethyl mercury. These forms of mercury have been used in fungicides, herbicides, and as preservatives or anti-fouling agents for seed, latex paint, paper products, medicines, vaccines and cosmetics. Today most of these uses have been banned in the U.S. or are less common than in the past.

### ***Examples of Household Items That May Contain Mercury:***

- Mercury thermometers
- Thermostats
- Fluorescent lighting



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- Automotive blue-tint head lamps
- Pilot light sensors, switches and relays
- Clothes irons (*automatic or tilt shut-offs*)
- Batteries
- Medicine and health care products

## ***Mercury Collection and Recycling***

Items or compounds containing mercury should not be put in the garbage or poured down the drain. All mercury and mercury-containing items should be recycled or disposed of in an environmentally friendly manner. Recycling mercury into new usable products prevents its release into the environment. It is also important to remember that many alternatives to mercury containing devices and products are manufactured today.

Some area hardware stores will accept small CFLs for recycling at no charge. The Solid Waste Management District's Household Hazardous Waste Facility will accept mercury and mercury containing products at its Mishawaka facility. This service is available to any resident of Saint Joseph County. Hazardous wastes from businesses will not be accepted.

By doing your part to eliminate improper disposal of mercury our environment and public health will benefit.