



CITY OF SANDUSKY, OHIO MERCURY POLLUTANT MINIMIZATION PROGRAM



Mercury is a naturally-occurring, dense, silvery metal that is a liquid at room temperature. It also conducts electricity and has many beneficial industrial, medical and household uses. Mercury can be found in thermostats, thermometers, batteries, fluorescent lamps, paints, disinfectants, preservatives and many other items. In spite of its usefulness, mercury is a poison. If a mercury-containing device breaks, liquid mercury could separate into many small droplets and evaporate, creating mercury vapor. Mercury vapor is dangerous if inhaled, but cannot be detected without special equipment. It can linger indoors for months or years, and evaporate slowly into the air. Children are more at risk for mercury exposure because it settles near the floor where children breathe the vapor. Mercury attacks the central nervous system, and can cause shortness of breath, nausea, vomiting, fever, tremors, difficulty sleeping, and other effects. Mercury can also be absorbed through the skin, or ingested in foods. Even at low levels, mercury can be harmful.

When mercury reaches water, it is naturally converted to an even more harmful substance called methylmercury. In this form, it can contaminate the food chain through bioaccumulation. This is the reason why there are guidelines that indicate how much of certain kinds of fish can be eaten safely.

The City of Sandusky [Wastewater Treatment Plant](#) (WWTP) is currently operating under a mercury variance. This means that the Ohio Environmental Protection Agency wants the city to achieve a level of mercury in WWTP effluent of 1.3 nanograms per liter (nanograms per liter can also be expressed as parts per trillion) or less, but since the city has demonstrated that the WWTP cannot meet that limit without expensive alterations to the treatment plant, the OEPA has allowed the city to operate under a higher limit, as long as certain conditions are met. One of these conditions is that the WWTP must implement a mercury pollutant minimization program. This means that we are to identify sources of mercury, and reduce the amount discharged into the sewer system wherever possible.

One method that the WWTP is pursuing to reduce mercury is to sample the sewer system upstream and downstream of dental offices to establish how much mercury is being discharged. Dental offices have been identified as the largest contributors of mercury to sewer systems. Armed with these results, personnel contact those with higher readings and encourage them to follow Best Management Practices recommended by the American Dental Association, to help reduce mercury levels in their wastewater. Other methods are to monitor industrial sources of mercury, assess potential mercury sources at the WWTP itself, and to educate the public on actions that they can take to help reduce the amounts of mercury in wastewater.

More information on sources of mercury, how to clean up a small spill, how to properly clean up a broken fluorescent bulb, and much more can be found by following these links:

[Ohio Environmental Protection Agency - Mercury News](#)

[Ohio Environmental Protection Agency - Mercury Reduction](#)

[Agency for Toxic Substances & Disease Registry – Frequently Asked Questions](#)

[U.S. Food & Drug Administration and U.S. Environmental Protection Agency – Mercury in Fish and Shellfish](#)