

LEAD IN DRINKING WATER FOOD SERVICE OPERATION (FSO) AND RETAIL FOOD ESTABLISHMENT (RFE)

Lead is a toxic heavy metal that was used for years in products found around the home. It can be found in:

- water
- lead-based paint
- air
- soil
- household dust
- food
- certain types of pottery, porcelain, and pewter

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily because of corrosion of materials containing lead in the water distribution system and household plumbing. Some common causes of corrosion are dissolved oxygen, low pH, and low mineral content in the water. In 1986, Congress banned the use of lead solder containing more than 0.2% lead and restricted the lead content of faucets, pipes, and other plumbing materials to not more than 8.0%.

When water stands for several hours in lead pipes or plumbing systems containing lead, the lead may dissolve into the drinking water. This means the water from the faucet in the morning can contain higher levels of lead.

EFFECTS OF LEAD ON HEALTH

Lead can cause serious health problems if it enters the body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of the body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

WHO IS RESPONSIBLE FOR LEAD TESTING AT A FSO/RFE?

In accordance with the Ohio Department of Health guidelines, the FSO/RFE is responsible for lead testing. The Board of Health or an independent third party may be hired to collect the sample and should follow the US EPA/ODH lead testing protocols cited in The Ohio Administrative Code:

Ohio Administrative Code 3745-81-86

Each first-draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of its sampling site for at least six hours. First-draw samples from residential housing shall be collected from the cold-water kitchen tap or bathroom sink tap. First-draw samples from a non-residential building shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Non-first-draw samples collected in lieu of first-draw samples pursuant to paragraph (B)(5) of this rule shall be



one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First-draw samples may be collected by the public water system or the system may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph. To avoid problems of residents handling nitric acid, acidification of first-draw samples may be done up to fourteen days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the approved EPA method before the sample can be analyzed. If a public water system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

Ohio Administrative Code 3701-32-19

Lead-contaminated water pipes that leach a lead concentration equal to or exceeding fifteen micrograms per liter into a flushed water sample collected in accordance with the procedure specified in 40 C.F.R. 141.86 (2007) are considered hazardous to human health.

IS LEAD TESTING REQUIRED FOR A FSO/RFE?

In accordance with the Ohio Department of Health guidelines, the FSO/RFE is required to meet established drinking water standards in the food code. Because of the situation with the public water system in Sebring, any FSO/RFE that receives its water supply from the Sebring Village Public Water System must sample the water used in its facility for drinking, cooking, and food preparation.

HOW MANY LOCATIONS SHOULD BE SAMPLED AT A FSO/RFE?

In accordance with the Ohio Department of Health guidelines, at least one (1) sample should be collected from a tap that is representative of water provided for drinking, making ice, coffee, soda, tea, and food preparation.

FSO/RFE REQUIREMENTS BASED ON SAMPLING RESULTS

REQUIREMENTS FOR A FSO/RFE WHEN THE SAMPLE EXCEEDS 15 PPB (micrograms per liter)

In accordance with the Ohio Department of Health guidelines, the FSO/RFE is REQUIRED to take action and provide safe water by one of the following:

- Install a filter that meets NSF Standard 53 and is rated for lead reduction and also the flow rate or volume of water used in the facility. The filter shall treat all water used for drinking, making ice, sodas, coffee/tea, or food preparation. The FSO/RFE shall follow the proper maintenance/replacement of the filter according to the manufacturer's requirements.
- Implement a flushing protocol (directions below) that reduces the lead levels below 15 ppb when the water has been stagnant for six (6) hours or greater. A confirmation sample shall be drawn after flushing occurs to confirm that flushing does reduce lead levels. (Please refer to the FLUSHING PROTOCOL FOR FSO/RFE)
- Provide alternate water for drinking and food preparation.

****FSO/RFE WHO DO NOT IMPLEMENT ONE OF THESE OPTIONS MAY BE SUBJECT TO LICENSURE SUSPENSION****



50 Westchester Drive, Youngstown, Ohio 44515
Phone: 330-270-2855 or Toll-Free: 1-800-873-MCHD
www.mahoninghealth.org



REQUIREMENTS FOR A FSO/RFE WHEN THE SAMPLE IS BETWEEN DETECTION AND LESS THAN OR EQUAL TO 15 PPB (micrograms per liter)

In accordance with the Ohio Department of Health guidelines, the FSO/RFE is RECOMMENDED to:

- Minimize exposure through filtration that meets NSF Standard 53 and is rated for lead reduction and also the flow rate or volume of water used in the facility. The filter shall treat all water used for drinking, making ice, sodas, coffee/tea, or food preparation. The FSO/RFE shall follow the proper maintenance/replacement of the filter according to the manufacturer's requirements.
- Implement a flushing protocol (directions below), use cold water, or remove fixtures or sources.

FLUSHING PROTOCOL FOR A FSO/RFE

- Flush water lines for five (5) minutes each day before using or serving water and after six (6) hours of no water use. If the FSO/RFE has multiple service lines from the main line, each service line will need to be flushed separately. Then flush other equipment such as soda machines for at least one to two (1-2) minutes.
- Use cold water and store it for immediate consumption after flushing the water lines.
- Always use cold water from flushed lines for drinking, cooking, and cleaning/rinsing food.
- Hot water must be used for dishwashing.

The Mahoning County District Board of Health has an Ohio EPA approved laboratory that can conduct this testing if you so choose. The laboratory can be reached by calling 330-270-2841 or 1-800-873-MCHD (6243). Testing is required because you cannot see, taste, or smell lead in drinking water.

For additional information, see the following from the Centers for Disease Control and Prevention at <http://www.cdc.gov/nceh/lead/tips/water.htm>.

