



# FACT SHEET

OFFICE OF DRINKING WATER & MUNICIPAL ASSISTANCE – ENVIRONMENTAL ASSISTANCE CENTER 800-662-9278

## LEAD AND COPPER SAMPLING REQUIREMENTS FOR NONCOMMUNITY WATER SUPPLIES

In 1974, out of concern for the quality of the water we drink, Congress passed the Safe Drinking Water Act. This Act gave the U.S. Environmental Protection Agency (EPA) responsibility for establishing and enforcing drinking water quality standards nationwide. The Michigan Safe Drinking Water Act (Act 399) was enacted in 1976 and enables the Michigan Department of Environmental Quality (MDEQ) to maintain primacy (state authority) over the drinking water program in our State. This Act regulates both community and noncommunity water supplies.

Noncommunity water supplies (NCWS) are of two different types:

- A transient NCWS is one that serves water to 25 or more *different* people each day for at least 60 days out of the year. Examples include restaurants, convenience stores, campgrounds, etc.
- A nontransient NCWS serve the *same* 25 people each day for six months of the year, such as a school, factory, office building, etc.

The Safe Drinking Water Act contains language regarding the requirements for nontransient, NCWS' built prior to 1987 to test for lead and copper. The Federal lead and copper regulations were revised in 1998. These revisions went into effect on April 11, 2000, requiring that ALL NCWS to test for lead and copper. The rule changes have been implemented in Michigan as part of the primacy agreement. The sampling frequency is established below:

Population Served	Number of Samples Standard, every 6 months	Number of Samples Reduced, every 12 months
501-3300	20	10
101-500	10	5
Less than 101	5	5

### Why be concerned about lead or copper?

Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food and water. *It builds up in the body over many years and may result in damage to the brain, red blood cells and kidneys.* Lead enters drinking water primarily as a result of corrosion, or wearing away of materials containing lead in the water distribution system, such as lead service lines and lead solder. The presence of copper in drinking water is also primarily a result of corrosion. Acute exposure to copper can result in nausea and diarrhea.

It has been shown that some fixtures, even though they were labeled "lead-free" have released small amounts of lead when exposed to water with corrosive or acidic qualities. Copper is still commonly used in plumbing fixtures and piping, and these water quality factors may cause copper to be released into the drinking water.

### I only have two drinking water fountains in my building, do I still have to take the required number of samples?

If you have fewer drinking water fixtures than the chart requires, your monitoring requirements maybe adjusted. For more information on adjusting your lead/copper sampling obligations contact your local health department.

### We operate a large facility with multiple buildings and numerous drinking water fixtures. How many and where to do we sample from?

Sample the drinking water fixtures in the building up to the chart number based on the population of your facility. For instance, if your building has eight drinking water fixtures, and you are required to take five samples, sample only five of the fixtures. If you have more than the chart number of drinking water fixtures, select ones that represent the water distribution system, i.e. one in each building wing or on each floor. A sample siting plan should be discussed during your sanitary survey.

For large facilities collect at least one sample per building until you get the number of samples required. Or, you can collect more than the minimum number of samples. If you have only a few buildings, split the samples among them as to best represent where the water is being consumed.

## Sampling protocol

- ✓ Obtain sample containers and analysis from a laboratory certified by the MDEQ for lead/copper analysis.
- ✓ Collect first draw samples. (Water has stood motionless in the piping for at least 6 hours.) Do not sample after weekends, holidays, or extended periods of stagnation. Do not flush the sample tap before sample collection.
- ✓ Collect samples where water is drawn primarily for drinking. Sample drinking fountains, or kitchen/break room faucets if they are used routinely to obtain water for consumption. Do not sample from mop sinks, hose bibs, etc.
- ✓ Submit the samples to the laboratory for analysis, and record the results on the sample record log provided by the DEQ.
- ✓ Calculate the 90<sup>th</sup> percentile using the directions on the log sheet, or submit your sample results to the local health department's noncommunity staff person for calculating the 90<sup>th</sup> percentile.
- ✓ Whether or not you do the calculations of the 90<sup>th</sup> percentile yourself, you are required to submit the results to the local health department noncommunity staff person.

Action levels of 0.015 mg/liter (ppm) for lead and 1.3 mg/liter (ppm) for copper were established in 1991. If the 90<sup>th</sup> percentile result exceeds either level, the water supply is required to initiate an investigation by:

- Contacting the local health department for further instructions
- Sampling all other drinking water taps not previously sampled
- Sampling the source water
- Providing public education on the lead exceedance to the population exposed. A copper exceedance does not require public notice at this time.

Corrective measures for action level exceedances may include replacement of fixtures, piping or service lines. If the contaminant level still cannot be reduced below the action level through implementation of these measures, the water supply will need to conduct a treatment study to investigate whether the installation of corrosion control technology may be necessary.

## Lead Consumer Notification

As of January 2013, nontransient schools and day care centers are required to provide all lead testing results for drinking water to consumers, pursuant to Rule 410(5) of the SDWA. It is expected that all nontransient operations will be required to provide lead consumer notification within the next several years. The consumer notice shall be issued within 30 days of the owner/operator learning the results, even if no lead is detected. Lead consumer notice is not taking the place of the Annual Water Quality Report nor meets the intent of those required to provide Public Education for a lead exceedance.

If you have questions regarding this regulation or other sampling requirements you may have, contact your local health department's noncommunity water supply staff personnel.