# FREQUENTLY ASKED QUESTIONS
# Lead in Drinking Water at Schools & Child Care Facilities

***GENERAL INFORMATION***

## 1. What is lead?

Lead is a naturally occurring metal that can be found in air, soil, dust, and water. Lead can cause health problems if too much enters the body from any of these sources. The greatest risk of lead exposure is to infants, young children and pregnant women. The New Jersey Department of Health website provides further information on the health effects of lead, http://www.state.nj.us/health/fhs/newborn/lead.shtml.

## 2. How does lead get into a school's drinking water?

Lead can enter a school's drinking water twofold. First, lead can be present in the source water that is used for a drinking water supply. Lead enters surface waters (i.e.: rivers, lakes, or streams) through discharges from industrial or municipal wastewater treatment plants or when lead in the air settles into these surface waters. Lead is rarely found in source water in New Jersey. Lead can also enter a school's drinking water after interacting with the school's plumbing materials containing lead. These include lead pipe and lead solder, which was commonly used until 1986, or components made of brass. This chemical interaction of water with such materials is referred to as corrosion. Corrosion is accelerated by water quality characteristics such as low pH, high water temperature and extended contact. The extent to which corrosion occurs contributes to the amount of lead that can be released into the drinking water.

## 3. What is a lead action level?

The lead action level is a threshold established by the United States Environmental Protection Agency for lead in drinking water for public water supplies. The lead action level is 15 µg/l (micrograms per liter), which may also be expressed as 15 ppb (parts per billion). This same action level, or threshold, is used in the NJ Department of Education regulations for water outlets in schools and child care facilities that provide water for drinking or food preparation.

## 4. Is there anything I can do to reduce my child's exposure to lead in drinking water?

- **Run the water to flush out lead**. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer the water resides in plumbing the more lead it may contain. Flushing the tap means running the cold water faucet for about 15-30 seconds. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still

need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

- **Use cold water for cooking and preparing baby formula**. Do not cook with or drink water from the hot water tap. Hot water can dissolve lead more quickly than cold water. If you need hot water, draw water from the cold tap and then heat it. Do not use water from the hot water tap to make baby formula.
- **Do not boil water to remove lead**. Boiling water will not reduce lead.
- **Look for alternative sources or treatment of water**. You may want to consider purchasing bottled water or a water filter. Be sure the filter is approved to reduce lead or contact NSF International at 1-800-NSF-8010 or www.nsf.org for information on performance standards for water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer.
- Contact the community public water system that serves your home and inquire about lead testing of your home drinking water.

## 5. How can I know if my child has been exposed to lead?

The only method to determine a child's lead level is for them to have a blood lead test done by a health provider.

***FOR SCHOOLS***

## 6. If a result is less than the action level is it safe?

The New Jersey Department of Health website provides further information on the health effects of lead, http://www.state.nj.us/health/fhs/newborn/lead.shtml.

## 7. Is it safe to use non-drinking water outlets for hand washing and cleaning if the water is tested and levels exceed the action level?

Yes, hand washing and cleaning should be safe for children and school staff, even if the water contains lead at a level which exceeds the action level. Human skin does not absorb lead in water. Signage should be placed at non-drinking water outlets stating that water should not be consumed. Pictures should be used if there are small children using the water outlets.

## 8. Do we need to develop a sampling plan and Quality Assurance Project Plan?

Yes, the Department of Education regulations require sampling in school facilities to be in accordance with a Lead Sampling Plan and Quality Assurance Project Plan. Establishing a sampling plan and Quality Assurance Project Plan helps identify and prioritize sampling locations and outline the procedures staff must follow to ensure sampling is conducted in accordance with the regulations.

## 9. What taps are required to be sampled?

All drinking water outlets are required to be sampled. A drinking water outlet means any location at a school facility, other facility, or temporary facility, where water may be used for consumption or food preparation. These include drinking water fountains, bubblers, food preparation sinks, medical office sinks, teacher breakroom sinks and ice machines inside a school building as well as outside drinking water fountains and food preparation sinks at athletic fields and concession stands.

## 10. Who can collect the samples?

An individual who is adequately trained and is familiar with the Sampling Plan and Quality Assurance Project Plan may collect samples. The person may be a school staff member or a laboratory representative. However, the individual collecting the sample is responsible for the chains of custody and QA/QC of the sampling event.

## 11. Who can analyze the samples?

All lead drinking water samples must be analyzed by a New Jersey Certified Laboratory certified to conduct lead drinking water analysis.

## 12. Where can we find a list on New Jersey certified laboratories?

A list of New Jersey Certified Laboratories may be found on the New Jersey Department of Environmental Protection's website at http://datamine2.state.nj.us/DEP_OPRA/OpraMain/categories?category=Certified+Laboratories or by contacting the NJDEP's Office of Quality Assurance at 609-292-3950.

## 13. What is a service line?

The service line is the pipe that carries water to the school from the public water system's main in the street, or if the facility is served by its own well, it is the line from the well to the facility. In some cases, there may be more than one service line entering the building. If this is the case, it is important to determine if all service lines are used for potable supply or if one is used for non-potable purposes (e.g. fire suppression or irrigation).

## 14. What is a point of entry (POE)?

The point of entry is the location in the facility where the service line enters the building. For the purpose of lead sample collection, the POE sample location is the closest water outlet to the entrance of the service line into the school facility.

## 15. Is there an amount of time the water must sit motionless in the plumbing prior to sampling?

The water in the school facility must remain motionless in the plumbing for a minimum of 8 hours but no more than 48 hours. During this time period, no water can be used in the facility. This includes non-drinking water outlets, janitorial sinks, toilets, outside hoses and irrigation systems (unless the irrigation system is served by its own service line). This amount of time was established to ensure that the collected samples are representative of water that typically a student or faculty member may consume. Lead may leach into the drinking water from plumbing, solder or fixtures as the water remains motionless.

## 16. What is a follow-up flush sample and why is it taken?

A follow-up flush sample is a sample collected after letting the cold water run for 30 seconds. A follow-up flush sample is recommended to be taken from outlets where the initial test result exceeded the action level. A follow-up flush sample is taken to determine the lead level of water that has been stagnant in upstream plumbing, but not in the outlet fixture. Some school facilities may elect to collect the follow-up flush sample immediately following the initial first draw sample (on the same day) or may elect to take samples at a later date.

## 17. What does it mean if the first draw sample is above the action level and the follow-up flush sample is below? What does it mean if the follow-up flush sample is higher than the first draw sample?

If the initial first draw sample is greater than the action level, a contributing source may be debris in the aerator or screen of the outlet. It is important to determine if the screen or aerator were cleaned or any other work was performed on the fixture prior to collecting the follow-up flush sample. If so, the debris may have been the source of the elevated lead level. Otherwise, the source of the lead may be the actual drinking water fixture.

If the lead result increases with the follow-up flush sample, most likely the source is upstream and may be the plumbing, solder or service line.

## 18. Where can we find a list of recalled drinking water fountains?

A list of EPA recalled drinking water fountains may be found in EPA's 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance's Appendix E. A EPA Fact Sheet is also available on EPA's website at
http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=30005UPU.TXT

## 19. Our school is a Nontransient Noncommunity water system. Are we required to submit the sampling results required by the NJ Department of Education to the NJ Department of Environmental Protection (NJDEP)?

Under the Safe Drinking Water Act's Lead and Copper Rule, all Community Water Systems and all Nontransient Noncommunity Water Systems are required to monitor taps for lead and copper and report results to NJDEP. The requirements for lead testing in drinking water at schools

established in the Department of Education regulations are more stringent than the Lead and Copper Rule testing requirements. Therefore, the NJDEP is allowing, but not requiring, these lead results to be used for determining compliance with the Lead and Copper Rule. The results must be submitted to the NJDEP electronically by the laboratory if they are going to be used for compliance.

However, if the Nontransient Noncommunity water system elects not to use the results for compliance, they are required to provide the results to NJDEP via hardcopy. The results should be sent to:

Mail Code 401-04Q
Division of Water Supply & Geoscience
Water System Operations Element
Bureau of Water System Engineering
401 E. State Street – PO Box 420
Trenton, New Jersey 08625-0420

## 20. Are there remedial measures the school can take to reduce lead exposure for children and staff?

Below are some examples of routine activities that should be conducted to prevent exposure to elevated levels of lead:

- Create aerator (screen) cleaning maintenance schedule and clean debris from all accessible aerators frequently.
- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.
- Instruct the users (students and staff) to run the water before drinking or request staff to run the water before students arrive, so they are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.
- Post notices at bathroom sinks that water should not be consumed. Use pictures if there are small children using bathrooms.

Under the Department of Education Regulations, a school is required to immediately end use of each drinking water outlet where water quality exceeds the permissible lead action level (15 µg/l). This is an immediate remediation that will reduce the children's and staff's lead exposure.

## 21. Who can I contact to get additional information?

For further information, contact the New Jersey Department of Environmental Protection, Division of Water Supply & Geoscience at (609) 292-2957. Questions can also be e-mailed to watersupply@dep.nj.gov.