Lead in Drinking Water

What You Should **Know** to **Protect Children** in Your **School** or **Child Care Facility**

Environmental Protection Agency's Role in Safeguarding Drinking Water

The U.S. Environmental Protection Agency (EPA) is responsible for ensuring the safety of our country's drinking water. EPA works together with state environmental or health agencies to accomplish this mission. Charged with this mandate, EPA is concerned about the potential for elevated lead levels in the drinking water of schools and child care centers, which serve those most vulnerable to the health risks of lead exposure – *our nation's children*.

Why Schools and Child Care Facilities Are of Concern

EPA is reaching out to schools and child care centers across the country because there are a number of factors which may result in children's exposure to lead in these facilities;

- The extended periods of time children spend in school and child care facilities.
- The age of buildings, plumbing and fixtures that are subject to corrosion and the leaching of lead into drinking water.
- The on again/off again water use patterns that promote corrosion as water stands in plumbing pipes when it's not in use.

Lead and Public Health

Lead is a toxic metal that can be harmful to human health when ingested or inhaled. Even in very small doses, lead can pose a health threat. Childhood lead exposure may interfere with red blood cell chemistry and impair the development of the brain and central nervous system. Adverse effects may include delays in normal physical and mental development in babies and young children as well as deficits in attention span, hearing, and learning abilities.

Lead will also be stored in bones to be released later into the bloodstream. Fetuses and young children up to the age of six are most at risk because their growing bodies tend to absorb more lead than the average adult.

Federal Regulation of Lead in Drinking Water

Safe Drinking Water Act (SDWA): Passed in 1974, this federal law requires EPA to establish regulations for known or potential contaminants in drinking water, including lead. Under SDWA, regulations developed by EPA apply to public water systems. Schools and child care facilities

that are served by a public water system are not subject to SDWA monitoring and treatment requirements because these schools and child care facilities are not considered public water systems.

Under the Safe Drinking Water Act, lead is regulated by the following provisions:

- **The 1986 SDWA Lead Ban:** This provision of the SDWA requires the use of "lead-free" pipe, solder, and flux in the installation or repair of any public water system or any plumbing in a residential or non-residential facility providing water for human consumption. Solders and flux are considered to be lead-free when they contain less than 0.2 percent lead. Before this ban took effect on June 19, 1986, solders used to join water pipes typically contained about 50 percent lead. Pipes and pipe fittings are considered "lead-free" under the Lead Ban when they contain less than 8 percent lead. Plumbing fixtures that are not "lead-free" were banned from sale after August 6, 1998. Plumbing fixtures are subject to the NSF International standard.

- **The 1988 Lead Contamination Control Act (LCCA):** The purpose of the LCCA is to reduce lead exposure and the health risks associated with it by reducing lead levels in drinking water at schools and child care centers. The LCCA created lead monitoring and reporting requirements for all schools, and required the replacement of drinking water fixtures that contained excessive levels of lead (see Appendix E of the 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance for a listing of these fixtures). The provisions are not enforceable. As a result, states have the option to voluntarily enforce the provisions of the Act (or alternate provisions) through their own authority.

- **The 1991 Lead and Copper Rule (LCR):** The LCR requires public water suppliers to monitor for lead in drinking water and to provide treatment for corrosive water if lead or copper are found at unacceptable levels. EPA strongly recommends that schools test their facilities for lead. However, unless a school owns its public water system, testing for lead and copper within the school is not specifically required. Therefore, many schools served by water systems owned by cities, towns, or other entities may have never been tested for lead under the LCR.

EPA Call to Action

EPA hopes to reach out to schools and child care facilities in order to educate them regarding the benefits of testing. In an effort to encourage school districts to take action, EPA is spearheading a **3Ts for Reducing Lead in Drinking Water in Schools and Child Care**

Facilities outreach campaign. Nonregulatory in nature, this initiative calls for school districts and child care centers nationwide to launch their own proactive campaigns of education, prevention, testing and remediation to minimize the threat of lead exposure from drinking water and help ensure the safety of both the children and adults that use their facilities.

The Importance of Testing

The best way to find out if a school or child care center has high levels of lead in the drinking water is to test the water. A testing program can identify if lead levels are near the EPA level of concern, identify the source of lead, and target the most effective, timely and cost-efficient methods of remediation.

An effective drinking water sampling and monitoring program incorporates the following:

- Designating a person to coordinate all activities.
- Developing a plumbing profile and performing targeted follow-up testing to identify sources of on-site lead contamination.
- Developing a drinking water sampling plan.
- Using a certified laboratory for analysis.
- Water testing at all on-site potable water outlets accessible to students and staff for drinking, cooking, or making coffee and other hot beverages.
- Taking remedial action to correct any problems identified.
- Establishing a schedule for periodic follow-up sampling to monitor lead levels.
- Initiating an ongoing program of communication with students, parents, staff, and the community at large to keep all concerned audiences informed of the proactive steps being taken to minimize possible exposure to lead in the facility's drinking water.
- Managing records in a central location.