

Lead-In-Water Management

Purpose

Lead is a highly toxic metal that was used for many years in products in and around our schools. Exposure to lead may cause a range of health effects, from behavioral problems and learning disabilities, to, in cases of high level exposure, seizures and death. The school district has implemented a Lead-in-Water Management program to reduce the potential for exposure in district buildings.

Background

Since the 1980's, EPA and it's federal and state partners have phased out lead in gasoline, reduced lead in drinking water, reduced lead in industrial air pollution, and banned or limited lead used in consumer products, including paint.

Parents, too, have greatly helped to reduce lead exposures to their children by cleaning and maintaining homes, having their children's blood levels checked, and promoting proper nutrition. The EPA's Lead Awareness Program continues to work to protect human health and the environment against the dangers of lead by developing regulations, conducting research, and designing educational outreach efforts and materials. Other agencies including OSHA, CDC, and the Minnesota Department of Health have all been active in the ongoing attempt to reduce lead exposure in this country.

Introduction-Lead

Medical research shows lead to be a toxic metal which can be harmful to human health even at low exposure levels. Young children, infants, and fetuses are particularly vulnerable to lead because of the physical and behavioral effects of lead occur at lower exposure levels in children than in adults. A dose of lead that would have little effect on an adult can have a big effect on a child. Overexposure to lead can permanently impair a child's mental and physical development. Comparatively low levels of exposure have been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells.

The degree of harm depends upon the total exposure to lead from all sources. In recent years, government initiatives such as federal controls on lead in gasoline have significantly reduced our overall exposure to lead. However, children as well as adults are still exposed to lead from sources like air, soil, dust, food (which may contain lead absorbed from air or food containers), paint, and water. Lead from paint dust and fragments and from drinking water can be a significant contributor to overall exposure to lead.

Born and unborn children are more at risk than adults to exposure to lead. Not only are children particularly susceptible to the toxic effects of lead, but their cumulative exposure to lead from various sources is likely to be greater. This is partly because play activities may bring children in contact with many potential sources of lead contamination such as dirt or soil. In addition, growing children tend to absorb more of the lead they consume than adults.



The only way to be sure of the amount of lead in the drinking water supply at your school is to have the water tested by a competent-state-specified laboratory using EPA-approved methods. Before making specific arrangements to have the school's drinking water tested, a profile of its plumbing and potential for lead contamination should be developed.

Factors contributing to elevated lead levels include lead in water coolers, drinking fountains, potable water fixtures, building water distribution pipes and water entering the building. Lead may be found in fixtures and pipes, but is also found in solder used to attach components. Water which is unbalanced in terms of its acid/alkaline proportion will dissolve the lead at a faster rate than water which is not. And, as indicated before, the length of time water can work to dissolve the lead affects the overall lead content.

Minnesota State Legislature

Minnesota House of Representatives

A bill for an act relating to health; requiring lead testing of water in public school buildings; amending Minnesota Statutes 2016, section 123B.595, subdivision 4; proposing coding for new law in Minnesota Statutes, chapter 121A.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. **[121A.335] LEAD IN SCHOOL DRINKING WATER**

Subdivision 1. **Model plan.** The commissioners of health and education shall jointly develop a model plan to require school districts to accurately and efficiently test for the presence of lead in water in public school buildings serving students in kindergarten through grade 12. To the extent possible, the commissioners shall base the plan on the standards established by the United States Environmental Protection Agency. The plan may be based on the technical guidance in the Department of Health's document, "Reducing Lead in Drinking Water: A Technical Guidance for Minnesota's School and Child Care Facilities."

Subd. 2. **School plans.** By July 1, 2018, the board of each school district or charter school must adopt the commissioners' model plan or develop and adopt an alternative plan to accurately and efficiently test for the presence of lead in water in school buildings serving prekindergarten students and students in kindergarten through grade 12.

Subd. 3. **Frequency of testing.** The plan must include a testing schedule that requires testing for the presence of lead in water in all buildings serving school districts and charter school students where there is a source of water that may be consumed by students. The testing must be conducted annually in calendar years 2018 and 2019. The testing must be conducted at least once every five years thereafter.

Subd. 4. **Ten-year facilities plan.** A school district may include lead testing and remediation as part of its ten-year facilities plan under section 123B.595.

Subd. 5. **Report placed on its Web site.** Each school district and charter school must post its most recent test results showing the presence of lead in its drinking water on its Web site.

EFFECTIVE DATE. This section is effective July 1, 2017.

Sec. 2. Minnesota Statutes 2016, section 123B.595, subdivision 4, is amended to read:

Subd. 4. Facilities plans. (a) To qualify for revenue under this section, a school district or intermediate district, not including a charter school, must have a ten-year facility plan adopted by the school board and approved by the commissioner. The plan must include provisions for implementing a health and safety program that complies with health, safety, and environmental regulations and best practices, including indoor air quality management and remediation of lead hazards.

(b) The district must annually update the plan, submit the plan to the commissioner for approval by July 31, and indicate whether the district will issue bonds to finance the plan or levy for the costs.

(c) For school districts issuing bonds to finance the plan, the plan must include a debt service schedule demonstrating that the debt service revenue required to pay the principal and interest on the bonds each year will not exceed the projected long-term facilities revenue for that year.

EFFECTIVE DATE. This section is effective for revenue for fiscal years 2018 and later.

3 Ts: Train, Test, Tell

- District will ask for and maintain records of water tests conducted by the city
- District will test where the water main enters the school
- District will test all potable water sources
- District will test all potable sources deemed as “reasonably used” for drinking and cooking
- District will conduct first draws (where water has been stagnant for 6+ hours). Overnight, but not over the weekend
- District will test all potable, reasonably used water sources every five years
- District will test in this order: 1. Elementary 2. Senior High 3. Activity Center
 - Drinking fountains
 - Kitchen
 - Nurses’ office
- Start date of July 1, 2018
- Flushing protocols for fixtures that test above the 15 ppb
- Removing drinking fountain fixtures testing above the 15 ppb
- Replacing drinking fountain with water fill stations that include filters to remove lead and other particles
- Re-testing fixtures district wide that test above the threshold of 15 ppb
- District has already begun this testing
- District will publish results on their district website.
- District will test 1 site annually