

Yellow Medicine East ISD #2190
450 9th Avenue
Granite Falls, Minnesota 56241

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 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 partially 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.

3Rs: 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+ months). 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. Pre-School 2. ECFE 3. Elementary 4. Junior High 5. Senior High
 - Drinking Fountains
 - Teachers’ Work Room
 - Kitchen
 - Nurses Office
- Start date of July 1, 2018.
- Flushing protocols for fixtures that test above 15ppb.
- 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 the results on their district website.
- District will test a minimum of 10 sites annually.