Lead and Water Management Program
Independent School District 196

District 196 has developed the following Lead Water Management Program to comply with: Minnesota Statute 121A.335, Environmental Protection Agency's (EPA's) 3Ts for Reducing Lead in Drinking Water in Schools, Child Care Facilities: A Training, Testing, and Taking Action Approach Revised Manual (October 2018), the Lead Contamination Control Act (LCCA) of 1988, The Safe Water Act, Reduction of Lead in Drinking Water Act of 2014, the Minnesota Department of Health (MDH) and the Minnesota Department of Education (MDE).

The goal of this Lead in Water Management Program is to reduce the potential for exposure to lead in water. District 196 is making certain that the potable water systems as well as products used by and around children are free of lead or managed in a way that reduces the potential for exposure to lead.

The Buildings and Grounds/Health and Safety Manager is contact person for the Lead in Water Management Program and can be contacted at (651) 423-7735.

1.0 Develop Lead in Water Sampling Program

MDH has set a requirement that all taps used for **drinking water or food preparation** must be tested at a minimum of once every five years. Prior to sampling, the following steps must be taken;

- Inventory drinking water taps used for consumption (i.e., drinking water and food preparation)
    - A faucet/tap can be a fixture, faucet, drinking fountain or water cooler. Drinking water taps typically **do not** include bathroom taps, laboratory faucets/sinks or custodial closet sinks; these should be clearly marked not for drinking.
- Check all drinking fountains to ensure not identified as having a lead-lined tank. More information in "Lead Water Coolers Banned" in 1988 (see appendix). If found on list, it must be removed from use immediately
- Determine logistics for sampling. Water testing should be done consistent with the established schedule. Prior to testing it must be determined if school staff or a contractor will conduct the testing.

2.0 Sampling

FIRST DRAW

All potable water systems are sampled in District 196 using the "First Draw" sample method. First draw sample means that a sample of tap water is taken prior to water being drawn or flushed from the fixture. Sampling always takes place at taps closest to where the water enters the building. The water must have stood idle in the plumbing pipes for at least six hours, but no more than 18 hours. Sampling should not take place on Mondays or after non-school days. A 250mL of water will be collected during first draw sampling. Samples will be sent to an accredited laboratory for analysis or will analyzed use field analyzers.

3.0 Remediation/Maintenance Procedures

When lead content in tested water exceeds 20 ppb, the fixture shall be taken out of service until levels can be reduced to under 20 ppb, per the recommendation of MDH and MDE. Remediation methods include implementing a flushing program, repair and replacement options and treatment options at the fixture and/or plumbing, point of use (POU).

FLUSHING OPTIONS

A flushing program may be used as a quick and easy solution to high lead levels in a small/concentrated area, as an alternative to repair or replacement. For any location with an elevated lead level, conduct flush sampling to determine if a longer flush will reduce lead levels to an acceptable level. If results indicate that flushing will reduce lead to acceptable levels, implement a flushing program which includes documentation of ***daily*** flushing and periodic program review.

INDIVIDUAL TAP FLUSHING PROGRAM

During periods of normal use, run each tap in the morning before children arrive and again at midday. MHD/MDE recommends 2-3 minutes, however, site-specific conditions will determine how long a tap needs to be flushed and the number of times a day a tap needs to be flushed. Refer to "3Ts Flushing Best Practices" (PDF) for guidance on flushing.

Periodic testing may be done prior to and after the midday flushing to ensure the lead concentrations have remained low throughout the morning hours.

After weekends or breaks, run each tap for ten to fifteen minutes before children return to school then return to normal use. Frequency and duration of flushing should be reasonably documented.

MAIN PIPE FLUSHING PROGRAM

Main Pipe flushing may be implemented if lead concentrations are found to be high throughout the entire school or confined to a certain area of the school. Daily, begin by flushing the tap that is furthest away from the water source. MDH recommends flushing for at least 10 minutes. Continue to the second furthest tap and then so on until all taps have been flushed.

Taps should be sampled periodically and analyzed for lead to confirm the effectiveness of the program.

REPAIR AND REPLACE OPTIONS

Engineering plans and specifications for the plumbing system are useful for identifying sources of lead and helpful in determining if sources of lead can be removed from service or replaced with lead free fixtures. Options for eliminating lead sources include:

REMOVE TAP/FIXTURE FROM SERVICE

If the tap is seldom used, it may be disconnected or removed from the water supply line, but first verify the tap is not required for local building code compliance. Remove fixture from service by disconnecting it from the water supply and/or clearly mark water fixtures that are not for drinking or cooking

REPLACE WITH LEAD-FREE FIXTURE/PLUMBING COMPONENT

Replace with lead-free fixture/plumbing component in accordance with Reduction of Lead in Drinking Water Act;

- If the existing tap is suspected to be the source of contamination, replace with a lead free tap.
- Replace other sources of lead, including lead pipe, lead solder joints, and brass plumbing components with lead free materials; and

TREATMENT OPTIONS

POINT OF USE (POU) TREATMENT DEVICE

A POU water treatment device may be installed at taps where lead has been detected. A National Sanitation Foundation (NSF) certified filter for lead reduction may be installed at the tap or fixture, that

meets the following guidelines;

- The filter selected should work by size exclusion of lead particles as opposed to lead adsorption. Filters should have tight pores (1-micron or less). NSF lists many such filters on its website.
- Following replacement, retest the first-draw lead level after flushing
- It is strongly encouraged that the POU device is approved to meet NSF Standard 53, NSF Standard 58, or an equivalent standard.
- It is to be installed, operated, and maintained in accordance with the manufacturer's recommendations. POU treatment systems may be subject to Department of Labor and Industry (DLI) or local administrative authority plan review and approval prior to installation. Contact DLI at (651) 284-5063 for more information.

POINT OF ENTRY (POE) CHEMICAL TREATMENT

Adjusting the water chemistry may reduce the amount of lead absorbed by the water. This may be done by adding a chemical to the water as it enters the building. Typical methods of chemical treatment include addition of a phosphate-based or silica-based corrosion inhibitor or an adjustment to the water's pH or hardness. All chemical treatment systems are subject to MDH plan review and approval prior to installation. In addition, a school that installs POE corrosion control treatment becomes a public water system and is required to meet the regulatory requirements of the SDWA. As a public water system, the school would be responsible for meeting all of the water quality standards of the SDWA, be subject to inspection of the water distribution system, and be required to have a certified water operator.

3.0 Reporting and Communication of Results and Actions

Per Minnesota Statute 121A.335, school districts that have tested its buildings for the presence of lead are required to make the results of the testing available to the public for review and must notify parents of the availability of the information. It is recommended that a copy of the district's Lead-in-Drinking Water Testing reports be made available to staff and the public through the district website.

MDH and MDE Guidance states that District Lead in Water Management plans must include the following steps;

- Assign a designated persons(s) of contact
- If a test conducted reveals the presence of lead above a level where action should be taken as set by the guidance, the school district or charter school must, within 30 days of receiving the test result, either remediate the presence of lead to below the level set in guidance, verified by retest, or directly notify parents of the test result. The school district must make the water source unavailable until the hazard has been minimized.

4.0 Reporting and Communication of Results and Actions

Lead-in-water testing reports are located and available for review in the office of the Buildings and Grounds/Health and Safety Manager. This includes a floor plan with test locations and recommendations for further action if necessary.

ISD 196 – Rosemount, Eagan, Apple Valley retains lead-in-water records for a minimum of five years.