SPECTRUM HIGH SCHOOL
GRADES 6-12

17796 Industrial Circle NW ■ Elk River, MN 55330
Phone: 763-241-8703 ■ Fax: 763-633-1380
www.spectrumhighschool.org

Lead in School Drinking Water Management Plan and Policy

Board Approved: 10.25.18
Board Amended:

Policy Number: 704

PURPOSE

Spectrum High School and Spectrum Middle School (Spectrum) are committed to providing a safe working and learning environment for employees and students. This management plan and policy for Lead in School Drinking Water was developed to reduce the potential for exposure to lead in water and to comply with Minnesota Statutes, section 121A.335, the Minnesota Department of Health (MDH) guidelines, and the Minnesota Department of Education (MDE) guidelines. This plan and policy will also endeavor to comply with recommendations from the Environmental Protection Agency's (EPA's) 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (226) and the Lead Contamination Control Act (LCCA) of 1988.

Minnesota Statutes, section 121A.335 requires public school buildings serving pre-kindergarten through grade 12 to test for lead in water in potable water sources (water for consumption) every five (5) years. The MDH and MDE have published, "Reducing Lead in Drinking Water: A Technical Guidance and Model Plan for Minnesota's Public Schools", which presents a model plan that school districts may choose to adopt as part of the requirement of Minnesota Statutes, section 121A.335. The EPA 3T's was created by the EPA to identify and reduce lead in drinking water in schools. Lead is a metal that usually enters drinking water through the distribution system, including pipes, solders, faucets, and valves. Lead levels in water may increase when the water is allowed to sit undisturbed in the system. Exposure to lead is a significant health concern.

The EPA 3Ts has recommended that schools take remedial action to address lead-in-water exposure whenever lead levels exceed 20 parts per billing (ppb). The MDH and the MDE have jointly provided guidance that there is no safe level of lead and that districts should work to minimize the risk of lead.

The identified contact persons for Spectrum's Lead-in-Water Program are: Rick Peterson, Director of Facilities, rpeterson@spectrumhighschool.org and David Steinhauser, Facilities Manager/Lead Custodian dsteinhauser@spectrumhighschool.org.

WATER SAMPLING PROGRAM DEVELOPMENT

Identified potable water sources in Spectrum facilities, including sinks and drinking fountains in kitchens, staff lounges, classrooms, gymnasiums, and hallways will be sampled during the school year throughout the district at least once every five years.

Spectrum will sample all identified water sources in between July 1, 2018 and June 30, 2019 (FY19). The next five-year cycle will begin on July 1, 2023. Nothing prevents Spectrum from sampling water sources in some buildings before July 1, 2023; however, the next sampling cycle must then occur within five years of that respective sampling.

Prior to sampling, the following takes place:

- An inventory of potable water taps is taken
- Spectrum will benchmark from the inventory of water sources compiled during the FY19 sampling and testing cycle.

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- All drinking fountains are checked to ensure the EPA has not identified them as having a lead lined tank under LCCA.

Potable water sources will be resampled at least once every five years, per Minnesota Statute 121A.335, or when a fixture or water supply is repaired or replaced, or after construction activities that may knowingly impact the plumbing system.

FIRST DRAW TAP MONITORING

Water sampling of the identified cold-water taps is conducted as a "first draw" sample prior to usage on the day of sampling. Sampling begins at the taps closest to building entry point of water source to prevent accidental flushing of other sample locations in the building. Normal usage of the building should occur the day before sampling. Sampling should not take place on Mondays or after non-school days.

Taps included in the first draw sampling should not be used for 6-18 hours prior to sampling. If Spectrum cannot ensure identified taps were used the day prior to sampling, flushing will occur according to EPA protocol (2-3 minutes, 8-18 hours prior to sampling). Water samples of 250 milliliters (ml) will be analyzed by an accredited testing laboratory, using EPA approved analytical methods and quality control procedures.

MAINTENANCE PROCEDURES

When lead content exceeds 20 ppb, fixtures are taken out of service until the lead content can be reduced to 20 ppb or lower. While fixtures can still be used for drinking and cooking, actions will be taken to determine the source of lead and reduce lead levels in fixtures when sampling reveals lead content between 2 and 20 ppb. A lead-in-water concentration of or less than 20 ppb (maximum) is considered acceptable by the EPA. Potable water outlets found to have greater than this concentration will be repaired, replaced, removed, or filtered.

Spectrum will plan to do routine maintenance to prevent and help reduce elevated lead levels in drinking water. This includes cleaning faucet aerators where lead-containing materials may accumulate on a quarterly basis and following manufacturer's recommendations for water softener settings to ensure an appropriate level of hardness.

FLUSHING

Spectrum will not engage in flushing water sources to lower lead levels. It will repair, replace, remove, or filter those water sources. Spectrum will plan to flush potable water outlets following any two-week vacancy or prior to the beginning of school in the fall, regardless of the lead levels found in the most recent sampling. As long as the fixtures are used regularly, lead levels should remain acceptable. The fixtures should be flushed when the building has been at low occupancy, for example, following school breaks.

REPAIR, REPLACE, REMOVE, AND FILTER OPTIONS

Recommendations of one of the following treatment options for fixtures with lead levels approaching or exceeding the EPA action level may be considered for implementation:

- Investigate to determine the source of the lead responsible for an elevated lead level
    - Collecting multiple samples in a row can assist in determining the location of the lead-containing component (i.e., fittings for cold water supply lines)
    - Samples should be collected upstream of the cold supply lines
    - Once the source is identified, remove, replace with lead-free component, and retest
- If sampling indicates that the fixture is the source of the elevated lead level, replace fixture with a "lead-free" fixture.

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  - The Reduction of Lead in Drinking Water Act redefines "lead-free" as "not more than a weighted average of 0.25% lead when used with respect to wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures".
  - Effective January 4, 2014, drinking water system components must adhere to this new requirement
  - A list of EPA Lead Free Certification Marks can be found here: http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100GRDZ.txt
- Remove fixture from service by disconnecting it from the water supply
  - When possible, remove the fixture from use in the building.
- Install a National Sanitation Foundation (NSF) certified filter for lead reduction
  - The filter selected should work by size exclusion of lead particles as opposed to lead absorption.
    - 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 the line 8-18 hours prior to testing to confirm that filter is successful in reducing lead levels.
  - NOTE: Point-of-Use (POU) Treatment Device systems may be subject to the 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.

Spectrum recommends taking the following actions at 2 ppb to 20 ppb:

- Retest the sampled tap and attempt to more accurately determine the source of the lead
  - Consider monitoring the tap more frequently until the source of lead is found and removed
- Consider the feasibility of other steps to minimize lead exposure
  - Take into account other actions that the school may already have in place
- Make all test results and lead education materials accessible to the community
  - Such as on a website, annual report, and available upon request.

COMMUNICATION OF RESULTS AND FOLLOW-UP ACTONS

Per Minnesota Statutes, section 121A.335, a school district that has tested its building for the presence of lead shall 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's administrative offices and district website.

Notification can be accomplished by publishing a statement in the district's annual notifications or a back to school publication that is available to staff, students, parents, and the public.

Spectrum's notice will say:

> *Spectrum Charter School is committed to providing a safe working and learning environment for employees and students. In accordance with Minnesota Statutes, section 121A.335, the Minnesota Department of Health (MDH) and the Minnesota Department of Education (MDE), Spectrum has conducted, and continues to conduct, Lead in Drinking Water testing per the Minnesota Department of Health's "Reducing Lead in Drinking Water: A Technical Guidance for Minnesota's School and Child Care Facilities" recommendations.*

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- Notify affected individuals about the availability of the testing results within a reasonable time.
    - School employees, students, and parents should be informed and involved in the communication process
    - Results of initial and any follow-up testing should be easily accessible along with documentation of lead hazard reduction options
    - Posting the information on the school's website is preferred; however, the information should also be readily available to those who do not have access to the internet
    - Examples of other information venues are: meetings, open houses, and public notices
- Identify and share specific activities pursued to correct any lead problems
    - Local health officials can assist in understanding potential health risks, technical assistance, and communication strategies.

RECORDKEEPING
Lead in Water sampling and testing results and follow-up work can be obtained from Rick Peterson, Director of Facilities, rpeterson@spectrumhighschool.org and David Steinhauser, Facilities Manager/Lead Custodian dsteinhauser@spectrumhighschool.org.