## Lead in the Water, Paint, and Soil

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### Purpose

Lead poisoning is one of the most serious, and preventable, health problems in the United States today. Lead's effects on children are of particular concern because children have rapidly developing nervous systems and a higher mineral turnover in bone so that they can absorb up to 50% of the lead they ingest. In addition, children take in, on a body weight basis, more air, water, and food with associated lead contaminants, than adults do. Research has shown that lead is toxic at very low levels, as low as 10-15 micrograms/deciliter of blood. Exposure to these doses of lead have been related to delayed mental development, lower IQ, hearing deficits, speech and language handicaps, and poor attention spans in children.

Lead can enter a person's body through ingestion and/or inhalation of lead-based paint, lead contaminated soil and dust, and lead contaminated drinking water.

Recognizing the serious health consequences of exposure to lead, the Pelican Rapids School District will use the following plan and procedures to meet legislation and prevent lead exposure.

- Water In 2017, state legislation was passed requiring public school districts and charter schools to test for the presence of lead in water. This statute is in addition to any other established testing requirements for public school districts and charter schools. It requires schools to adopt a plan to accurately and efficiently test for lead in drinking water at public school buildings serving students from prekindergarten through grade 12. This plan shall be based on the United States Environmental Protection Agency (EPA) standards and/or the model plan developed by the Minnesota Department of Health (MDH) and the Minnesota Department Education (MDE).
  - A. The Pelican Rapids School District will follow the recommendations of the Minnesota Department of Health's "Lead Contamination Control in School Drinking Water Guidance Manual." The goal in following this guidance is to reduce lead levels at water taps to as close to the maximum contaminant level goal (0 parts per billion) as feasible, but not to exceed 20 parts per billion at any tap at any time.
  - B. To achieve this goal the following actions will be taken:
    - 1. All fixtures used in food preparation or used by children, staff, or pregnant women for drinking water will be inventoried by the program contact person by July of 2018. The inventory will be updated by the program contact person as taps are added and/or removed. All fixtures used in food preparation or used by children, staff, or pregnant women for drinking water will be tested. The samples will be 250 ml, first-draw samples taken after a tap has sat idle for at least six hours. A school employee or a designated individual who is trained in proper sampling protocol will conduct sampling. Sampling will start nearest to the water main. Samples will be sent to a Minnesota certified water-testing laboratory. Accurate recordkeeping will be maintained by labeling each bottle with a unique identifier and recording the location on a map of the building.

- 2. If results are less than 2 ppb use the tap as normal and test again in five years. If results are between 2 and 20 ppb the tap may be used as normal while steps are considered to reduce overall lead exposure. Some options include: retest the sample tap, and attempt to determine the source of lead, consider monitoring the tap more frequently until the source of lead is found and removed or consider the feasibility of a flushing program to minimize lead exposure.
- 3. Fixtures exceeding 20 ppb will be removed from service until the problem is corrected. Do not use for drinking water or food preparation. The school will provide targeted outreach to individuals that routinely use the tap.
- 4. Lead hazard reduction options include removal of lead sources, implementation of a flushing program or treatment.
  - Removal of lead sources may be achieved by bypassing lead sources through reconfiguring plumbing or shutting off problem outlets and/or removing them from service. Retest and monitor if fixtures, piping, etc. are changed to determine if lead levels have been reduced.
  - Implement a flushing program. This requires staff time, instructions, and in some locations may need to be done multiple times throughout the day.
  - Filtration or treatment. Treatment can be done at Point of Use (POU). This may be subject to Department of Labor and Industry or local authority for plan review. Treatment at Point of Entry (POE) chemical treatment adjusts the water chemistry to reduce the amount of lead absorbed by water. This may be subject to MDH plan review and classify the school as a public water system subject to Safe Drinking Water Act Regulations and testing.
- 5. Reassess
  - All taps affected by a corrective action should be retested after the corrective action has been implemented. Review results and decide if additional actions are needed.
- 6. Communication of results will be achieved by the school publishing a notice annually that lead in water testing results are available upon request.
- 7. Lead in Water testing will be started by July of 2018 and be completed in all buildings within five years. Re-testing will be completed every five years.
- C. The following is the most recent testing completed in (School) or anticipated dates for testing to occur:

Building	Date Completed or Scheduled	Latest Retesting Date
Viking	Scheduled for June 2018	June 2023
Elementary		
PRHS	Scheduled for August 2018	August 2023

# II. Paint

- A. Paint made prior to 1978 often contains significant amounts of lead. Paint containing 0.5% lead by weight (5000 ppm) is considered lead containing.
  - 1. In compliance with OSHA's Lead in Construction Standard (1926.62) and OSHA's General Industry Lead Standard (1910.1025), the school will ensure that testing is done in any area painted or varnished prior to 1978 that will undergo renovation or remodeling in a way that may expose school employees to levels of lead exceeding the permissible exposure limit. A Minnesota certified inspector will do all sampling.
  - 2. The school will keep loose paint and dust from accumulating. Areas where loose paint and dust may build up will be cleaned with a HEPA vacuum and with soap and water often.
  - 3. Only certified lead abatement workers will remove lead based paint.

# III. Soil and Dust

- A. Lead can be found in soil from a variety of sources. It can contain chipped paint from nearby structures or structures that have been torn down on the site. When cars still used leaded gasoline, they released exhaust containing lead into the air, which then settled into the soil. To avoid exposure to lead from soil, the school will do the following:
  - 1. Locate play areas away from structures with possible chipping or peeling paint and high traffic areas.
  - 2. Remove play structures with chipping or peeling paint determined to be lead containing.
  - 3. Keep all bare areas of soil covered with grass or other ground cover.
  - 4. Keep all areas in and around play equipment covered with clean fallprotecting materials such as pea gravel, sand, or wood chips.
  - 5. Not allow students to eat on the playground.
  - 6. Keep rugs at all school entrances to capture dust and soil from shoes as students and staff enter the building.
  - 7. Keep the buildings as dust-free as possible.
  - 8. Encourage students and staff to wash hands before eating.

### **IV.** Notification

A. Annual notification will be published in the Pelican Rapids Pressand on the school website stating that any lead testing results will be available for viewing upon request from the program contact person. This notification will be provided one time in the Pelican Rapids Press and continually on the school website.