



WICHITA STATE
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Lessons Learned From A Voluntary Water Testing Project With Schools and Childcare Facilities

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Health Effects of Lead Exposure

Low levels of lead has been found to have been associated with:

- Reduced IQ and attention span.
- Learning disabilities.
- Poor classroom performance.
- Hyperactivity.
- Behavioral problems.
- Impaired growth and hearing loss.



Lead in Drinking Water Regulations

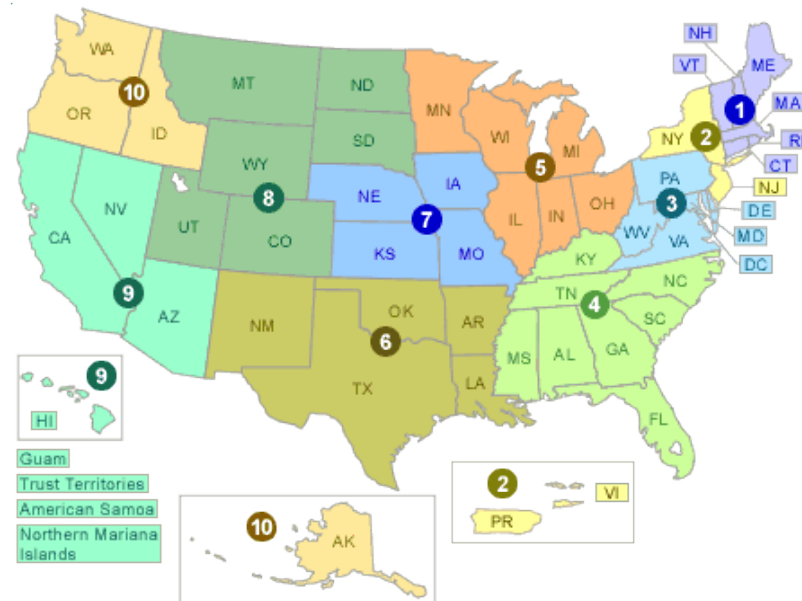
- ❑ The Lead Ban (1986): A requirement that only “lead-free” materials be used in new plumbing and in plumbing repairs.
- ❑ The Lead Contamination Control Act (LCCA) (1988): The LCCA aimed at the identification and reduction of lead in drinking water at schools and childcare facilities, including the recall of drinking water coolers with lead lined tanks.
- ❑ The Lead and Copper Rule (1991): A regulation by EPA to control the amount of lead and copper in water supplied by public water systems.

EPA's Lead and Copper Rule- Issued December 2021

- Will require water districts to sample at schools and childcare facilities that were constructed before January 2014. Sampling must be completed by late 2024.
- School sampling must include a minimum of 2 drinking fountains, 1 kitchen faucet, 1 nurse's room faucet, and 1 classroom faucet.
- Childcare facility sampling must include a minimum of 1 drinking fountain and either a kitchen faucet, classroom faucet or drinking fountain.

Region 7- Wichita State University Environmental Finance Center

Region 7 serves 4 states and 9 tribes



Lead Testing Project

- Potential sources of lead in water include:
 - Solder used to weld pipes.
 - Water supply lines.
 - Brass fittings and valves.
 - Faucets, faucet aerators, and drinking water fountains.



BACKGROUND

- We identified approximately 20 tribally owned or operated schools or childcare facilities and public schools as possible sample locations.
- Participation in project was voluntary. Repeated contacts were made with facilities to offer the testing.
- We followed EPA's "3Ts for Reducing Lead in Schools and Childcare Facilities".
- Testing was provided free of charge. Lab testing was provided by the EPA Region 7 laboratory.

RESULTS

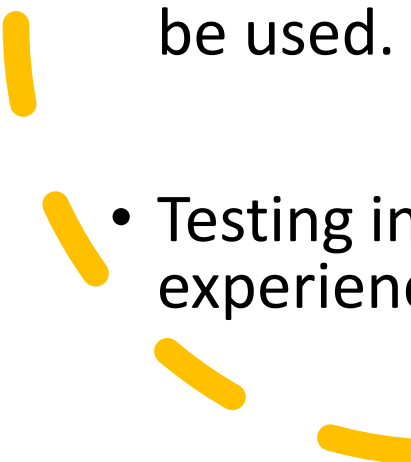
- Sampling was completed at 6 facilities.
- High concentrations of lead were found at 2 facilities.
- Both facilities took immediate action.







Lessons Learned

- When offered as voluntary participation, many facilities choose not to participate.
 - Confusion with staff on some aspects of the procedures. Specifically, water does not and should not be shut off to the facility before testing.
 - Follow the EPA guidelines regarding the amount of time faucets should not be used. Weekend rest period is too long.
 - Testing instructions are intended for facility staff. These staff may not be experienced with sampling.
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Lessons Learned

- Samples do not need to be taken from all possible water faucets/sources.
- We sampled some unintended water sources (showers). Created some confusion.



Recommendations

- EPA's 3Ts documentation is an excellent resource. This is referenced in the updated Lead and Copper Rule. It is readily available from various sources.
- Work closely with schools/childcare facilities to ensure the safety of our youth's drinking water.



Questions?

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