

Lead and Copper in Illinois



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Lead and Copper in Illinois

Revisions to the Pb/Cu requirements come from multiple sources:

- Federal Lead and Copper Rule Revisions (LCRR)
- State Law (Public Act 102-0613)
- Additional amendments/requirements pending



Summary of New Requirements

Public Act 102-0613

- * Primarily related to Material Inventory and lead service line replacement (LSLR)

Federal Lead and Copper Rule (LCRR)

- * Relates to Monitoring and Sampling requirements in addition to LSLR requirements.



Public Act 102-0613: The Purpose

- 1) require the owners and operators of community water supplies to develop, implement, and maintain a comprehensive water service line material inventory and comprehensive lead service line replacement plan, provide notice to occupants of potential affected buildings before any construction or repair work on water mains or lead service lines, and request access to potentially affected buildings before replacing lead service lines
- 2) prohibit partial lead service line replacements, except when.....





Definitions

- Service Line – means the piping, tubing, and necessary appurtenances acting as a conduit from the water main or source of potable water supply to the building plumbing at the first shut-off valve or 18 inches inside the building, whichever is shorter.
- Lead Service Line – means a water service line made of lead or service line connected to a lead pigtail, lead gooseneck, or other lead fitting.
- Also, any galvanized material that is, or has been, downstream of lead is considered to be lead with regard to LSLR requirements.

Definitions (cont'd)



- Partial lead service line replacement – means replacement of only a portion of the lead service line. (e.g. Utility vs. private portion)
- Emergency Repair – means any unscheduled water main, water service, or water valve repair or replacement that results from failure or accident.
- Suspected lead service line – means a service line that a community water supply finds more likely than not to be of lead after completing the requirements under.....

Material Inventory and Service Line Identification

IMPORTANT NOTE:

EXCAVATION or UNEARTHING is NOT REQUIRED in identifying service line materials



Material Inventory and Service Line Identification

- Review of historical documentation, such as construction logs or cards, as-built drawing, purchase orders, and subdivision plans, to determine service line material construction.
- When conducting distribution system maintenance, visually inspect service lines and document materials of construction.
- Identify any time period when the service lines being installed were primarily lead
- Discuss service line installation and repair with employees, contractors, plumbers, etc., regarding service line materials.
- Visual inspection of service line materials at the connection and at the point where the service line enters the home or building.



Material Inventory and Service Line Identification

“What do I do if I’m denied access for service line identification?”

DOCUMENT
DOCUMENT
DOCUMENT



Maintain a comprehensive list of customers that have denied access for the purpose of service line identification.

Lead Service Line Identification

When a Community Water Supply identifies a LSL, the following requirements apply:

- Notify the owner and occupants of the building served by the LSL within 15 days of identification with a written notification.



Lead Service Line Notification

- Notification language must include:
 - A warning that the work may result in sediment, possibly containing lead from the service line, in the building's water.
 - Information concerning best practices for preventing exposure to or risk of consumption of lead in drinking water – including recommendations of flushing and faucet aerator cleaning.
 - Information regarding the dangers of lead exposure to young children and pregnant women.
- Language Development? May be the same as current Public Notification language?

Material Inventory Submittal



- NOTE: A MATERIAL INVENTORY SUBMITTAL IS NOT REQUIRED BY THIS YEAR'S APRIL 15, 2022 DEADLINE !!!
- The next Material Inventory submittal is due to the Agency by April 15, 2023.
- A completed Material Inventory is due to the Agency by April 15, 2024. (NOTE: According to LCRR, Final Inventory is due 10/26/24)
- A community water supply may request an extension for the final inventory submittal requirement. However, that request must be submitted 3 months prior to the April 15, 2024 deadline.

Lead Service Line Replacement (LSLR)

- The Final Inventory is complete and submitted: Now What?
 - A Lead Service Line Replacement (LSLR) Plan must be submitted to the Agency by April 15, 2024 and updated each year until April 15, 2027.
 - Submittal must be electronic.
 - Post the “Final” LSLR plan on your website –or- request the Agency to post the “Final” LSLR plan on their website. (Implementation?)



What's in the LSLR Plan?



- Total number of service lines
- Total number of known lead service line (including galvanized downstream of lead)
- Total number of lead service line replaced each year beginning in 2020
- A proposed lead service line replacement schedule (a minimum replacement schedule is provided)
- An analysis of costs and financing options for replacing LSLs

What's in the LSLR Plan?

- A plan to prioritize high-risk facilities (schools, day-care, hospitals, long-term health care facilities, etc.)
- A map of areas where lead service lines are expected and prioritization plan for replacement
- Measures to be taken regarding public notification of the LSLR Plan
- Measures taken to encourage diversity in hiring to implement the LSLR Plan





Minimum LSLR Rates

LSLs	Annual Replacement Rate	Completion Timeline
1 – 1200	7%	15 years
1201 – 4999	6%	17 years
5000 – 9999	5%	20 years
10,000 – 99,999	3%	34 years
> 100,000	2%	50 years

ADDITIONAL NOTES Re: PA 102-0613

- An Advisory Board consisting of at least 28 members is created and must convene within 120 days of the effective date of this Act and at least every 6 months thereafter. Duties include:
 - Advising the Agency on best practices in LSLR
 - Review progress of lead service line replacement goals
 - Advising the Agency on implementation matters related to this Act
 - Provide technical support and practical expertise 😊



ADDITIONAL NOTES Re: PA 102-0613

- Create dedicated, long-term revenue options for funding LSLR
- Requires the Agency to create rules for obtaining funding
- Prohibits partial lead service line replacement with the following exceptions:
 - Emergency Repairs: notification must be provided to customer in addition to information regarding potential risks of elevated lead levels
 - Provisions for distribution of point-of-use filters
 - Replacing the remaining portion of the service line within 30 days (120 days if circumstances prevent).
 - For partial LSLR, IDPH must be notified within 24 hours with and explanation of partial replacement and timeline for completion of LSLR
 - DOCUMENT!!!!



ADDITIONAL NOTES Re: PA 102-0613

- Notification is required for planned LSLR at least 45 days prior to work beginning.
- Provides a waiver for customers refusing to allow replacement of the private portion of the LSL. Waiver language and forms are to be created by IDPH. DOCUMENT!

IMPORTANT NOTE: For questions regarding physical LSL replacement, refer to IDPH and the Illinois Plumbing Code!



I Know What You're Thinking:
Holy S#*t!!!!



Wait....There's more!



The Federal Lead and Copper Rule Revisions (LCRR)

- Goals:
 - Better protect children at schools and child care facilities
 - Get the lead out of our nation's water
 - Empower communities through information



New Requirements of the LCRR

- In addition to the Inventory and LSLR requirements, the LCRR:
 - Adds a “trigger” level of 10 ug/L to the “action” level of 15 ug/L.
 - Changes sampling procedures
 - Includes additional corrosion control treatment requirements
 - Adds “Find and Fix” provisions
 - Includes Small System Flexibility



Trigger Level

- For Systems exceeding the Trigger Level, but not the Action Level:
 - No reduced monitoring (triennial) – annual sampling required at the standard number of sites
 - Implement a goal-based LSLR program
 - Conduct annual outreach to customers with LSLs
 - Perform and Corrosion Control Treatment Study and/or re-optimize the existing Corrosion Control Treatment



Sampling Procedures

- **IMPORTANT:** Make sure that your Pb/Cu Sample site plan is consistent with the Materials Inventory





Sampling Procedures

- Revise the sample site plan to include sampling from LSLs (when sufficient LSLs exist)
- When sufficient LSLs are not available, make sure that proper Tiering of sites is used in creating the sample site plan
- Sample procedure requirements revised to include 1st and 5th liter draw after 6 hour stagnation period. (No pre-flush or aerator cleaning is allowed prior to stagnation and sampling)
- Systems above the Action Level must monitor every six months until 90th percentile levels are at, or below, the Action Level for two years
- Systems with source water and/or long-term treatment changes (including disinfection practices) must perform a corrosion control study and conduct monitoring every six months

Corrosion Control Treatment

- Chemical processes for adjustment of pH, alkalinity, and dissolved inorganic carbon
- Phosphate-based corrosion inhibitors – orthophosphate
- Silicate-based corrosion inhibitors – soda ash & silicone dioxide



FIND and FIX Provisions

- Systems with CCT will be required to collect additional water quality parameter sampling at or near the site of individual high lead sample results within 5 days of obtaining the lead result(s).

System will investigate possible remedial actions that could include:

- Corrosion control treatment adjustment
 - Distribution System flushing and/or modification
 - Sample technique failures (excessive stagnation, improper sample tap, etc.)
-
- Documentation should be provided to IEPA regarding the “Fix”.

Schools and Child-Care Facilities

- The CWS must develop a list of connections serving schools and licensed child-care providers and verify every 5 years
- First 5 years: CWS will collect two samples at 20% of the child-care facilities per year.
- First 5 years: CWS will collect five samples at 20% of the elementary schools each year
- After initial round of sampling (above) sampling conducted upon request.
- Systems sample upon request at secondary schools



Schools and Child-Care Facilities

- Sample results must be provided to IEPA, IDPH and local county health department
- Provide the 3 Ts for reducing lead in drinking water at schools and child-care facilities: Training, Testing, and Taking Action approach.
- Annually certify to IEPA that the notification and sampling requirements have been met.



Things to Consider



- The CDC has stated that there is no safe level of lead in drinking water and USEPA has not developed a maximum contaminant level (MCL) for lead.
- Consider the Action level and Trigger level as synonymous when evaluating treatment and providing notification (transparency)
- The revisions to the Material Inventory require site-by-site identification. Recommend creating database with locational identifiers.
- Create a working relationship with IEPA and provide as much documentation as possible

Disclaimer

- This presentation does not remotely cover the extent of the LCRR or PA 102-0613
- IEPA currently has State Revolving Loan funds that are designated for LSLR: up to \$2M/year (Don't wait to apply)
- Additional funding is required through legislation
- The Federal Capital Funding bill also includes funding for LSLR



Questions?

