

EPA LCR Updates

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EPA Region 3 Drinking Water

Lead and Copper Rule Background

- LCR was promulgated in 1991, revised in 2000 and 2007.
- Applies to ~ 68,000 community water system and non-transient non-community public water systems serving ~300 million people.
- EPA works continuously with primacy agencies.
- Maximum Contaminant Level Goals (MCLG)
 - Lead – 0 ug/L
 - Copper – 1.3 mg/L
- 90th percentile tap sampling results are compared to an action level (AL)
 - Lead – 15 ug/L (ppb)
 - Copper – 1.3 mg/L (ppm)

Under the LCR, MCLGs and ALs were established for both Lead and Copper. MCLGs are non-enforceable public health goals. They are the maximum level of a contaminant in DW at which no known or anticipated adverse effect on the health of a person would occur. Since MCLGs are non-enforceable and do not consider cost or feasibility, the LCR established Action Levels. The action levels are compared to 90th percentile tap sampling results. 90th percentile (P90) level above lead AL of 15 µg/L or copper AL of 1.3 mg/L requires additional actions.

Lead and Copper Rule Revisions - Key Dates

- Pre-publication rule posted on December 22, 2020
- Published in the Federal Register on January 15, 2021
- Original Effective Date: March 16, 2021
- Original Compliance Date: January 16, 2024
- Revised Effective Date #1: June 17, 2021
- **Revised Effective Date #2: December 21, 2021**
- Revised Compliance Date: September 16, 2024
- **Final Compliance Date #2: October 16, 2024**
- *Several pending lawsuits

EPA conducted extensive stakeholder engagements regarding revisions to the LR, including public meetings with various communities. Last year, in January 2021, the LCRR was promulgated. Shortly after the administration change, consistent with Executive Order 13990 and the Memorandum titled “Regulatory Freeze Pending Review,” EPA spent several months reviewing the LCRR requirements.

LCRR - Deadlines and Final Dates

- **January 15, 2021** – Promulgated Lead and Copper Rule Revisions (LCRR)
- **June 10, 2021** – Extended the effective date and compliance dates to review the LCRR
- **December 16, 2021** – EPA announced the conclusions of the LCRR review:
 - EPA will develop a new proposed rulemaking, the Lead and Copper Rule Improvements (LCRI), prior to the LCRR's compliance date (**October 16, 2024**)
 - EPA intends to maintain the requirements for information to be submitted in the initial lead service line inventory by **October 16, 2024**



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Lead and Copper Rule Revisions



- The final Lead and Copper Rule Revisions maintain the current MCLG of zero and AL of 15 ppb but requires a more comprehensive response at the action level and introduces a trigger level of 10 ppb.
- The trigger level is a new flexible provision, designed to compel water systems to take progressive, tailored actions to plan upgrades to aging infrastructure and reduce levels of lead in drinking water.
- This approach focuses on six key areas.

Lead and Copper Rule Revisions

6 Key Areas

1. Identifying areas most impacted
2. Strengthening treatment requirements
3. Replacing lead service lines
4. Increasing sampling reliability
5. Improving risk communication
6. Protecting children in schools



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1. The EPA will for the first time require systems to develop a public lead service line inventory and create a plan for removing LSLs. Currently, the LCRR states that all systems will need to develop a LSL inventory by October 16, 2024. There will also be a new focus on “find and fix” for any individual sample results that are greater than the AL, even if the 90th percentile is not in exceedance.
2. Systems with elevated lead levels will reevaluate their existing CCT or conduct a treatment study so that they are prepared to respond quickly when necessary. For systems with ALEs, they will similarly need to conduct CCT or re-optimize installation, regardless of subsequent 90th percentile levels. This essentially removes the “test out” option that was available under the LCR. Small system flexibility will remain for those PWSs that serve less than 10,000 people.
3. The LCRR requires all community water systems serving > 3,300 people to create a replacement program. Under the revisions as they currently stand, systems must replace 3% of LSLs per year if there is an ALE. This provision is likely to be updated or changed in the LCRI, but we don’t know how yet. Additionally, the revision prohibit those “test outs” I mentioned to avoid replacing LSLs. Partial LSLR will also no longer be allowed except in very specific situations (i.e. emergency repair).
4. There will be a greater focus on collecting samples from LSLs with 100% of tap samples to be taken from sites served by LSLs, if available.
5. Homeowners will learn about elevated levels of lead in their system sooner than under

the LCR. More on this in future slides...

6. For the first time, systems will be required to test school and child care facilities. This will include CWSs developing a list of customers or service connections that provide water to schools or licensed child care providers, as well as verifying this list every 5 years.



Lead and Copper Rule Revisions: Goals

The key areas fit into three goals:

1. Better protect children.
2. Get the lead out.
3. Empower communities.

Goal 1: Better Protect Children

- Systems will be required to test at elementary schools and child care facilities.
- These facilities must conduct testing once over a five-year period.
- After 5 years, these facilities:
 - Will continue receiving annual outreach; and
 - Will have the opportunity to be tested for lead by the system upon request.
- Secondary schools can request testing at anytime



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Systems will be required to test at elementary schools and child care facilities. These facilities must conduct testing once over a five-year period, with 20% of facilities to be tested each year. For each child care facility: the CWS will collect two samples. For each school: five samples.

The CWSs will be required to provide EPA's 3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities: a Training, Testing, and Taking Action Approach.

Goal 2: Get The Lead Out-Tap Sampling



- Better Science, Better Testing
 - Target sampling lead service lines
 - 100% of compliance samples from LSLs
 - New tap sampling procedures, collect water in contact with the LSL (i.e. 5th liter)
 - Systems with higher levels will sample more frequently
- Triggering Actions to Reduce Lead Exposure Earlier
 - Reevaluate CCT or conduct treatment study
 - Find and fix approach
 - Flexibility for small systems

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In addition to 100% of tap samples needing to be taken from sites served by LSLs, if available, there will be improved and clarified site selection tiering criteria and updated sampling procedures.

Systems with CCT will be required to collect an additional WQP sample at or near the site where a high lead sample was collected within 5 days of learning of the lead results. Systems must determine if a fix is needed. Systems that identify a fix that is out of their control, must provide documentation to their state. As previously mentioned, the revisions will require systems with exceedances to conduct CCT or re-optimize installation, regardless of subsequent 90th percentile levels.

Find and fix: Systems will have to pay attention to individual locations with elevated lead levels by identifying the cause and mitigating the problem. This is regardless of the 90th percentile. Additional samples will need to be taken whenever a sample is above the AL.

Flexibility for small systems will remain a priority. PWSs serving less than 10,000 people will be able to select an option other than CTT that works best for them, in consultation with their primacy agency.

Goal 2: Get The Lead Out-Tap Sampling

- Replacing More Lead Service Lines
 - Develop lead service line inventories
 - New trigger level
 - System serving > 10,000 people that exceed the TL, but not the AL, will implement the goal-based LSLR program.
 - Systems serving > 10,000 that exceed the TL must conduct goal-based LSLR program regardless of CCT status.
 - Systems serving > 10,000 that exceed the lead AL will full replace annually at least 3% of LSLs.

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Systems must prepare an initial lead service line inventory by October 16, 2024. Lead connectors are not required to be included in the inventory. Must update the inventory annually, or tri-annually if the system is on reduced monitoring.

Systems with LSLs must prepare a LSLR program plan by October 16, 2024. The LCRR removes the “test out” provision to avoid replacing LSLs. Partial LSLR will no longer be allowed.

- System serving > 10,000 people that exceed the TL, but not the AL, will implement the goal-based LSLR program.
- Systems serving > 10,000 that exceed the TL must conduct goal-based LSLR program regardless of CCT status.
- Systems serving > 10,000 that exceed the lead AL will full replace annually at least 3% of LSLs.



Goal 3: Education

- Empowering communities
 - Homeowners will learn about elevated levels of lead in their home or system sooner.
 - Water systems will also notify homeowners and building owners about opportunities to replace LSLs.
- Systems must conduct public notification to consumers within 24 hours of a 90th percentile lead level > AL.
- Provide notice to customers whose individual tap sample is > 15 ug/L within 3 days.
- Revised CCR health effects language.

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Systems will notify consumers annually who are served by LSLs or unknown lines. Water systems will include information about financial assistance programs to homeowners and building owners.

Systems will have to provide lead consumer notices to residents within 24 hours in the event of an ALE. Additionally, systems will provide consumer notice to those whose individual tap samples are greater than 15 ppb within 3 days of elevated lead results, or as soon as practicable.

The community must be provided information about how to access their LSL inventory and how to access tap results in the CCR.

LCRI Focus Areas

- Replacing All Lead Service Lines
- Compliance Tap Sampling
 - Will strengthen compliance tap sampling requirements.
 - Robust tap sampling methods are essential to identifying locations with elevated lead.
- Action and Trigger Levels
 - The Agency plans to reduce the complexity and confusion associated with these two levels.
- Prioritizing Historically Underserved Communities



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Replacing all lead service lines is an important public health goal. EPA intends to propose requirements that, along with other actions, would replace all lead service lines as quickly as feasible. EPA's proposal will fully consider the agency's statutory authority and required analyses, including an economic analysis.

Compliance tap sampling: strength and improve tap sampling requirements

The agency will also evaluate whether the trigger level requirements of the LCRR are still necessary with a proactive lead service line replacement and more protective action level.

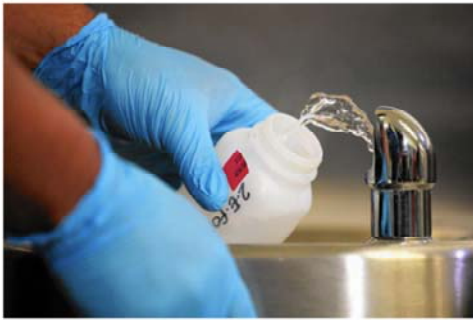
EPA intends to explore how to replace lead service lines in a manner that prioritizes underserved communities. EPA will evaluate options to prioritize the removal of lead service lines in communities disproportionately impacted by lead in drinking water. The goal of these potential lead service line replacement regulatory improvements—coupled with non-regulatory actions—is to more equitably protect public health.

Additional LCRI Considerations

- EPA intends to promulgate the Lead and Copper Rule Improvements prior to **October 16, 2024**
- Lead Service Line Inventory requirements from LCRR are likely to remain the same
- EPA will be issuing new guidance for developing lead service line inventories:
 - Best practices
 - Case studies
 - Templates
- EPA is also updating the Safe Drinking Water Information System to support state and Tribal data management needs for inventories

It is generally being recommended that primacy agencies apply for extensions for the LCRR, but otherwise wait until LCRI comes out so that agencies aren't preparing primacy packages for both rules.

Additional Actions to Address Lead in Drinking Water



- Funding – BIL, DWSRF, WIIN
- Equity in distribution of funds
- Federal collaboration to address schools and childcare facilities
- Targeted technical assistance
- Improving risk communication tools
- Discourage partial LSLR and encourage full replacements



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Additional infrastructure funds: \$2.9 billion in the Bipartisan Infrastructure Law is being allocated to states, Tribes, and territories to remove LSLs. This 2022 allocation is the first of five allotments that will provide \$15 billion in dedicated funding for LSL replacements. In addition to the dedicated investment in LSLs, the BIL provides an additional \$11.7 billion in general funding through the DWSRF, which can also be utilized for lead removal project.

EPA will focus on providing equitable technical assistance to small and disadvantaged communities, promote awareness of the availability of these funding programs to address lead in DW, and highlight case studies from communities that have successfully addressed concerns regarding the use of public funds for private-side LSL replacements. This will include two EPA programs: DWSRF and WIIN Reducing Lead in DW Grants. Both of which are pilot programs under the Justice 40 Initiative. EPA is engaging with stakeholders to explore opportunities to maximize the benefits of these programs in disadvantaged communities.

EPA will continue to collaborate with other federal agencies to remediate lead in DW in schools and child-care facilities, as well as allocating additional funds to the WIIN Lead in Schools and Childcare Facilities Drinking Water Testing program.

There will be targeted TA to communities experiencing high drinking water lead levels. This

is already happening in various states around the country where lead issues have arisen, and we foresee many more such targeted community TA projects under the LCRR and the new sampling procedures.


EPA will develop additional guidance and templates to assist state, Tribes, and water systems in the communication of lead risk to households and communities. The LSLI guidance is pending and should be released any day.

EPA and primacy agencies are very focused on discouraging partial LSLR and are encouraging full replacements only. Again, there is guidance being developed that will hopefully address several questions. Such as: what should a utility do with customer refusals, and the various methods that can be used to identify LSLs.

Guidance To Be Developed

- Technical assistance and case studies for LSL inventories
- Public education templates, including foreign languages
- Reference guides
 - <https://www.epa.gov/ground-water-and-drinking-water/supporting-materials-final-revisions-lead-and-copper-rule>
- Funding and Technical Assistance for Small/Disadvantaged Communities
 - https://www.epa.gov/sites/default/files/2020-12/documents/ej_lslr_funding_sources-final.pdf
- Others to be determined

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States and systems won't be alone while working toward compliance on this. EPA has already started developing guidance and the following list additional materials that will likely to be published. Even though the LCRR is still subject to change, LSL inventories are going to be a heavy lift and something that systems will need to work on early. It should also be noted that each primacy agency will handle the LCRR differently. Some states are farther along in LSL inventories and replacements than others. Some public education guides and templates are already available, and it is expected that EPA will continue to develop more. There is a great resource at the second link on this screen that lists and describes funding sources and assistance specifically available for EJ communities. This includes EPA grants and grant programs from other federal agencies, such as the Department of Housing and Urban Development and the Department of Agriculture. PADEP will still have primary authority for implementing the LCRR and all current and new funding sources will come from PENNVEST, 



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Thank you!

Find more information about the LCRR and upcoming LCRI

- <https://www.epa.gov/ground-water-and-drinking-water/revised-lead-and-copper-rule>