

EPA's Proposal to Improve the Lead and Copper Rule. Technical Fact Sheet for States and Public Water Systems November 2023

EPA is proposing the Lead and Copper Rule Improvements (LCRI) to significantly reduce exposure to lead through drinking water. The proposal builds on the 2021 Lead and Copper Rule Revisions (LCRR) to the Lead and Copper Rule (LCR). The proposed LCRI strengthens key elements of the rule in three main focus areas: identifying and replacing lead service lines (LSLs), reducing complexity and improving public health protection, and increasing transparency and informing the public. Key improvements in each of these three areas are described below.

1. Replacing Lead Service Lines

When LSLs are present, they represent the greatest lead exposure source in drinking water. EPA is proposing water systems replace all lead and galvanized requiring replacement (GRR) service lines¹ that are under the control of the water system in 10 years or less, with limited exceptions.

Proposed Improvements:

Full Replacement of Lead and GRR Service Lines

- Requires full replacement of all lead and GRR service lines that are under control of the water system in 10 years or less, with limited exceptions regardless of the system's 90th percentile lead level.
- Requires States to set shorter deadlines for individual water systems where the State determines that it is feasible (e.g., by taking into account the number of lead and GRR service lines in a system's inventory).
- Provides deferred deadlines for water systems with a high prevalence of LSLs and GRR service lines in their system, or a high proportion of these service lines in their system (unless the State determines that the 10-year deadline or a shorter deadline is feasible).
- Requires full service line replacement when a service line is "under the control" of the water system. Wherever a water system has adequate access (e.g., legal access, physical access) to conduct full service line replacement it is "under the control of" the water system.
- Prohibits water systems from conducting partial lead or GRR service line replacement unless it is conducted as part of an emergency repair or in coordination with planned infrastructure work, excluding planned infrastructure work solely for lead or GRR service line replacement. In the event of a partial replacement of a lead or GRR service line, the rule requires water systems to install a dielectric coupling to separate the remaining service line and the new service line to prevent galvanic corrosion unless the new service line is made of plastic, as well as perform other public education and risk mitigation activities.
- Requires water systems to provide pitcher filters or point-of-use (POU) devices following full and

¹ A GRR service line is a galvanized service line that currently is or ever was downstream of an LSL or is currently downstream of a service line of unknown material. Lead particles released from upstream LSLs can adsorb onto exposed iron scales, resulting in a buildup of lead particles in GRR service lines, which can persist even after the upstream LSL is removed. Lead can release from these scales causing lead occurrence in drinking water.

partial replacement of lead and GRR service lines and additional types of disturbances to lead, GRR, and unknown material service lines such as after replacement of a lead connector, inline water meter, and water meter setter and after certain disturbances that may be caused during inventorying efforts.

Improving the Service Line Inventory

- Requires water systems to develop an updated initial service line inventory, called the LCRI baseline inventory, which would be due by the compliance date of the LCRI (i.e., 3 years after the final LCRI is published). EPA is not proposing to change the 2021 LCRR requirement for water systems to develop an initial inventory, make it publicly available, and submit it to the State by October 16, 2024.
- Requires water systems to review similar records used to develop the 2021 LCRR initial inventories for connector materials and include the locations of lead connectors in the proposed LCRI baseline inventory, due by the compliance date of the final LCRI². It requires systems to identify locations of previously replaced lead connectors, if records exist, and track where lead connectors are replaced in the future.
- Requires water systems to validate the accuracy of a subset of non-lead service lines in their inventory. The required number of validations is based on the number of service lines that were identified as non-lead using techniques other than reviewing records listed in the rule or a two-point visual inspection.
- Requires water systems to make the service line inventory publicly available and include a street address associated with each service line and connector. Where a street address is not available for an individual service line or connector, a unique locational identifier (e.g., a block, intersection, or landmark) may be used. Water systems must also make publicly available the number of inventoried lead, GRR, and unknown service lines, and the number of known and replaced lead connectors. Water systems serving more than 50,000 people must post this information online to make it publicly available.
- Increases the frequency of inventory updates to annually and requires water systems to report how many lead and GRR service lines were replaced each year as part of those updates.
- Requires water systems to identify the material of all unknown service lines by the replacement deadline.

Expanded Service Line Replacement Plan Requirements

- Expands the 2021 LCRR service line replacement plan requirements for water systems by adding two new elements: 1) identification of any State and local laws and water tariff agreements relevant to the water system's ability to gain access to conduct full service line replacement; and 2) a communication strategy to inform both consumers and owners of rental properties about the replacement program. This is in addition to the 2021 LCRR service line replacement plan elements of 1) strategies for identifying unknowns; 2) procedures for full service line replacement; 3) a customer communication strategy; 4) flushing instructions; 5) a strategy to prioritize replacements based on factors including but not limited to the targeting of known lead and GRR service lines as well as service line replacements for local communities, such as those disproportionately impacted by lead, and populations most sensitive to the effects of lead; and 6) a funding strategy. Water systems would be required to submit replacement plans to the State by the LCRI compliance date.²
- Requires water systems to make the service line replacement plan publicly available, and for water systems serving more than 50,000 people to post it online.

² EPA is proposing that the LCRI compliance date is three years after the final rule is published. EPA anticipates finalizing the LCRI by October 2024.

2. Improving Public Health Protection and Reducing Rule Complexity

The proposed LCRI would reduce the complexity of the rule and includes provisions that support more efficient implementation by water systems while reducing lead exposure in more communities.

Proposed Improvements:

Further Reducing Lead Exposure in Communities

- Lowers the lead action level to 0.010 milligrams per liter (mg/L).
- Requires water systems to analyze the first- and fifth-liter samples from sites with LSLs or lead premise plumbing and use the higher lead level of the two samples in the 90th percentile compliance calculation.
- Requires water systems that have multiple lead action level exceedances (i.e., more than three lead action level exceedances in 5 years) to conduct additional outreach to consumers and make filters certified for lead reduction available for all consumers.
- Requires water quality parameter monitoring for water systems serving 10,001 to 50,000 people with corrosion control treatment (CCT), regardless of 90th percentile lead level.
- Requires water systems to conduct distribution system and site assessments (previously called “Find-and-Fix” under the 2021 LCRR) when lead tap monitoring results are greater than 0.010 mg/L.

Reducing Rule Complexity and Increasing Efficiency

- Eliminates the lead trigger level that was introduced under the 2021 LCRR.
- Streamlines the CCT requirements for systems exceeding the lead or copper action level.
- Allows deferral of installation or re-optimization of CCT for water systems that can remove 100 percent of their lead and GRR service lines at a minimum rate of 20 percent of lines each year within 5 years of being triggered into CCT steps.
- Reduces the threshold for small system flexibility for community water systems (CWSs) to those serving 3,300 or fewer people. These water systems may choose among three options if they exceed the lead action level: 1) installing optimized CCT, 2) installing and maintaining POU devices, or 3) replacing lead-bearing plumbing in buildings. EPA is not proposing to change the 2021 LCRR requirement that provides eligibility to non-transient non-community water systems (NTNCWSs) of all sizes.
- Expands the allowable waivers for CWSs to sample at schools and child care facilities to include sampling that occurred between January 1, 2021 and October 16, 2024.

3. Increasing Transparency and Informing the Public

To increase transparency and better inform the public of lead exposure and health risks, EPA is proposing to improve the public education requirements by updating the content and the delivery frequency for more proactive messaging about lead in drinking water. The proposal also introduces new public education requirements for lead and copper.

Proposed Improvements:

Improved Accessibility and Information about Lead

- Improves requirements for accessibility of public education and outreach materials to consumers including renters and individuals with limited English proficiency.
- Requires all public education and outreach materials to include improved lead health effects language.

- The revised language would begin with a statement that there is no safe level of lead in drinking water.
- Simplifies the health effects language so that it is easier for consumers to understand.
- Adds language to highlight the risks to pregnant people, infants (both formula-fed and breastfed), and young children.
- Requires water systems to provide additional information in all public education materials including added steps that consumers can take to reduce their exposure to lead in drinking water (e.g., using a filter certified to reduce lead, cleaning faucet aerators).

Enhanced Service Line Related Outreach

- Requires additional outreach activities for water systems that fail to meet their service line replacement rate.
- Maintains the 2021 LCRR requirement for water systems to notify consumers if they are served by a lead, GRR, or unknown service line. Adds instructions for how consumers can notify the water system if they think the material classification is incorrect. Adds a statement that the customer can request to have their tap water sampled for lead.
- Requires water systems that cause a disturbance to a lead, GRR, or unknown service line to notify persons at the service connection and provide them with 1) information to reduce their exposure; and, for some disturbances, 2) a pitcher filter or point-of-use device certified for lead reduction and replacement cartridges to last six months. Clarifies that service line disturbances could also result from physical action or vibration (which could include some inventory efforts). Clarifies that notification must be delivered within 24 hours of the disturbance if the service line was not shut off or bypassed.

Better Informing Consumers of Tap Sample Results

- Requires all notices of lead and copper tap sampling results to be delivered to consumers served at the sampled tap within three calendar days after the system learns of the results, regardless of the lead or copper concentration. The 3-day timeframe applies to samples from compliance monitoring and supplemental monitoring (e.g., sampling requested by customers).
- Requires water systems to deliver the consumer notice of tap sample results either electronically (e.g., email or text message), by phone, hand delivery, by mail (postmarked within three days of the system learning of the results), or by another method approved by the State. Notices by phone must have a written follow-up notice within 30 days of the system learning of the results.

Improved Public Education Following a Lead Action Level Exceedance

- Requires delivery of public education materials to every service connection address, in addition to the bill-paying customer, so that consumers who may not be the bill-paying customer (e.g., renters) are informed of the exceedance and steps they can take to reduce their risk of exposure to lead in drinking water.
- Requires CWSs serving a population greater than 50,000 persons (lowered from 100,000) to post the public education materials online to increase consumer accessibility.
- Improves the timeframe of public education after a lead action level exceedance by requiring water systems to conduct public education activities within 60 days after the end of every tap sampling period until the system no longer exceeds the lead action level.
- Expands public education requirements for water systems with LSLs to systems with lead, GRR, and/or unknown service lines. Public education materials for these systems must include: 1) opportunities for replacing lead and GRR services lines or having unknown service lines identified, 2) how to access the water system's service line inventory, 3) how to access the water system's service line replacement plan, 4) information about programs that provide financing to assist property owners with replacing

their portion of the service line, and 5) language that the water system must replace its portion if the property owners are replacing their portion.

- EPA is not proposing to change the 2021 Public Notification requirement for water systems to provide 24-hour Tier 1 public notification of a lead action level exceedance starting October 16, 2024.

Revised Consumer Confidence Report Information

- Revises the Consumer Confidence Report requirements to include an informational statement about lead that has been updated to improve risk communication, include updated lead health effects language, include information about the system's efforts to sample in schools and child care facilities, and how to access the water system's service line replacement plan.

How do I provide comment on the proposed LCRI?

EPA welcomes public input as part of the regulatory development process. EPA invites members of the public to review the proposed LCRI and supporting information and provide written comments at www.regulations.gov, Docket ID Number: EPA-HQ-OW-2022-0801.

Follow the online instructions for submitting written comments. Comments must be submitted to the public docket during the 60-day public comment period.

EPA will consider all public comments in development of the final regulation. For more information and instructions on how to submit written comments to the public docket, visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

EPA will also hold a virtual public hearing on January 16, 2024, at which the public will be invited to provide EPA with oral comments. For more information on the public hearing and how to provide EPA with oral and written comments, please visit: <https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements>.

Additional Resources

EPA has developed a series of fact sheets and frequently asked questions on the proposed LCRI that are available on EPA's website at <https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements>.

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