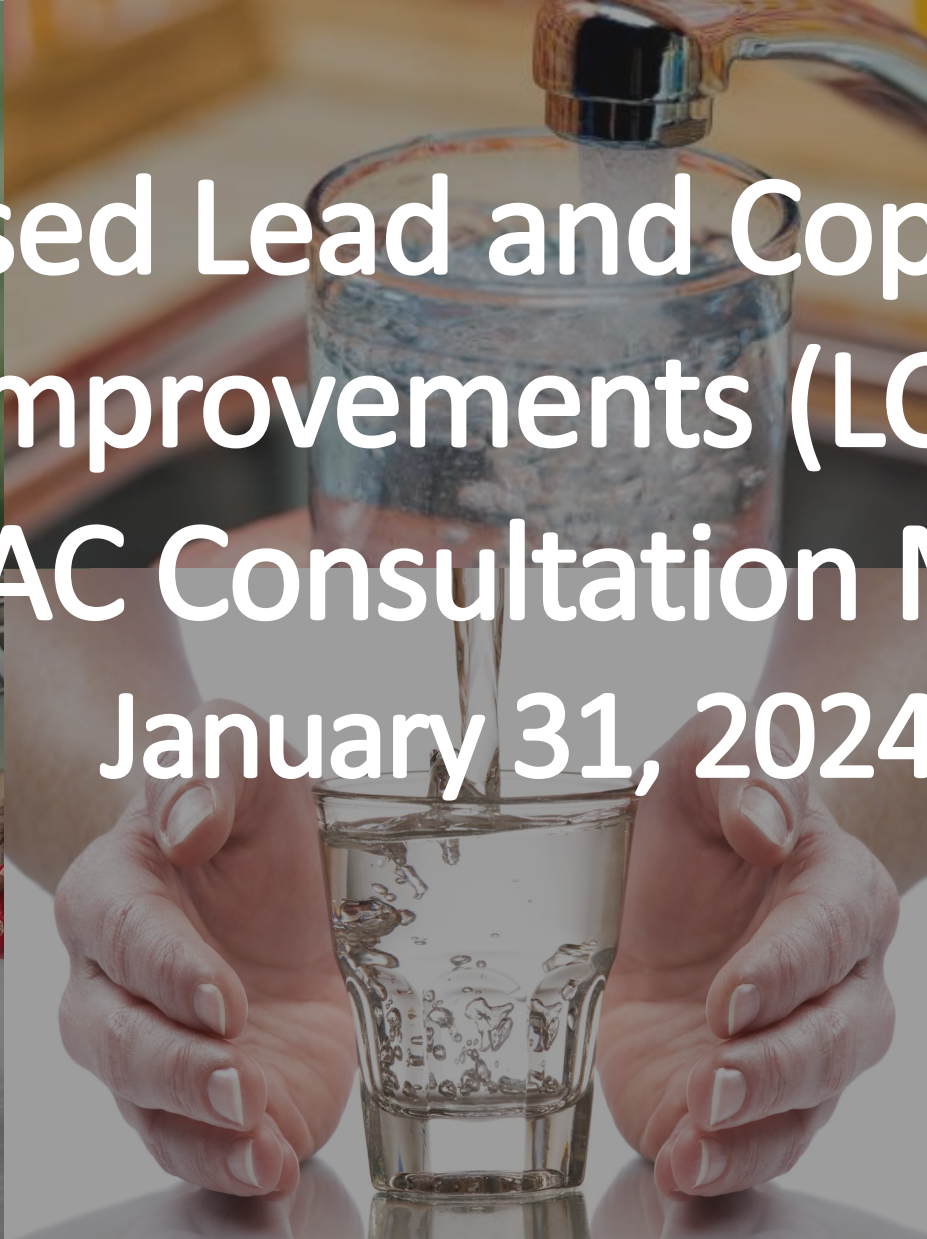




Proposed Lead and Copper Rule Improvements (LCRI)

NDWAC Consultation Meeting

January 31, 2024



Purpose

- To provide the National Drinking Water Advisory Council (NDWAC) with information on the proposed Lead and Copper Rule Improvements (LCRI) National Primary Drinking Water Regulation (NPDWR)
- To consult with the NDWAC prior to promulgating the final LCRI NPDWR



Overview

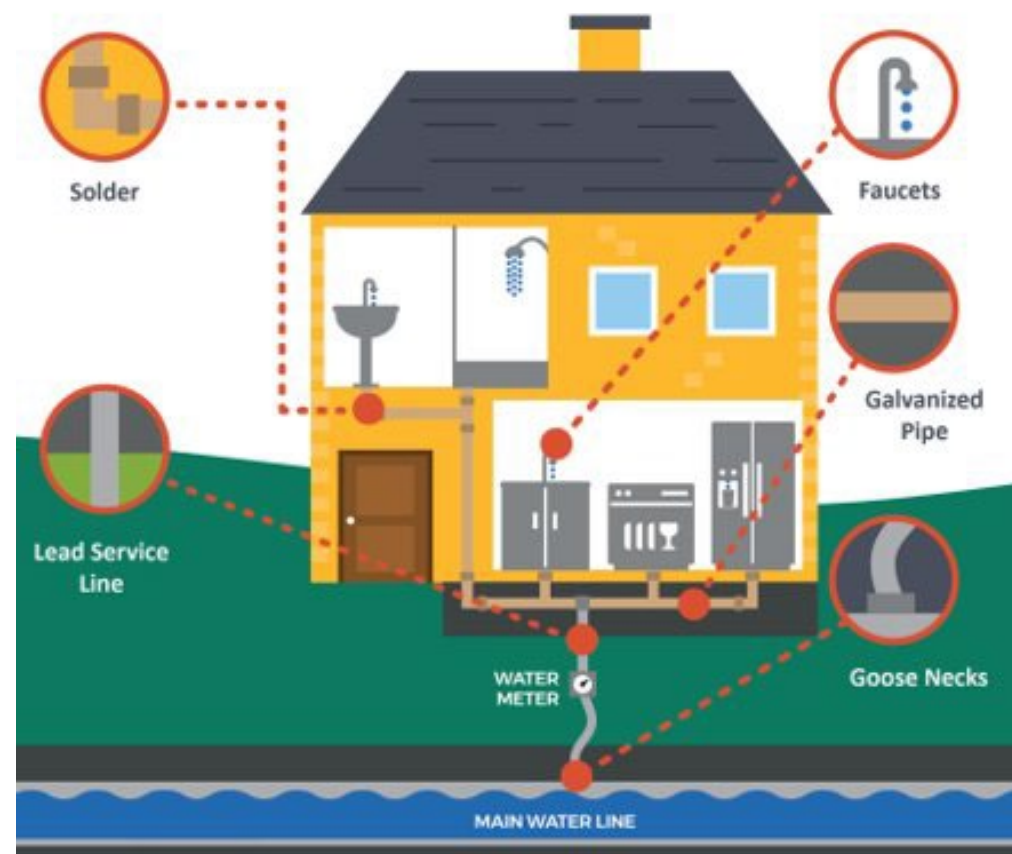
- Background on lead in drinking water and the Lead and Copper Rule
- Overview of the proposed LCRI
- Topics from the pre-proposal NDWAC consultation
- Key requests for comment for the NDWAC consultation

Background on lead in drinking water and the Lead and Copper Rule



Lead in drinking water

- Lead in pipes, solder, and faucets can dissolve in water or break off as particles.
- When present, lead service lines are the most significant source of lead in drinking water.
- In children, exposure to lead can cause serious health effects like lower IQ, learning and behavioral problems.
- In adults, health effects can include higher risk of heart disease, high blood pressure, and kidney or nervous system problems.



Lead and Copper Rule

- The Safe Drinking Water Act (SDWA) authorizes EPA to establish regulations for public water systems.
- EPA first established the Lead and Copper Rule in 1991 to reduce exposure to lead and copper in drinking water.
- The rule requires some water systems to treat drinking water to keep lead (or copper) from leaching into water when lead (or copper) levels in water require action. This is called corrosion control treatment.
- When corrosion control is not enough to reduce lead levels, the Lead and Copper Rule requires water systems to take additional actions, including lead service line replacement and public education.

Lead and Copper Rule

- Maximum Contaminant Level Goal (MCLG): lead = 0 $\mu\text{g}/\text{L}$; copper = 1.3 mg/L
 - The MCLG for lead is zero because there is no level of exposure to lead that is without risk.
- Action Level: lead = 15 $\mu\text{g}/\text{L}$; copper = 1.3 mg/L
 - The Action Level was set in 1991 based on a level that is generally representative of what water systems achieved with corrosion control treatment at that time.
- The Lead and Copper Rule requires water systems to test water at the tap in certain homes that have lead in the plumbing.
- If more than 10 percent of the lead samples from a system are greater than the Action Level, the system needs to take actions to reduce lead exposure.

The Lead and Copper Rule Revisions (LCRR)

- The LCRR was published on January 15, 2021.
- Subsequently, the Agency reviewed the 2021 LCRR in accordance with Executive Order 13990 and concluded that there are significant opportunities to improve the LCRR including:
 - Proactive and equitable lead service line replacement,
 - Strengthening compliance tap sampling to better identify communities most at risk of lead in drinking water and to compel lead reduction actions, and
 - Reducing the complexity of the regulation by improving the action and trigger level construct.

Proposed Lead and Copper Rule Improvements (LCRI)



Public Comment Period

- The proposed LCRI was published in the Federal Register on December 6, 2023.
- EPA invites the public to review the proposed LCRI and supporting information and provide written input to EPA through the public docket.
- The public docket can be accessed at <http://www.regulations.gov> under Docket ID No. **EPA-HQ-OW-2022-0801**.
- Written comments must be received on or before February 5, 2024.
- EPA held a virtual public hearing on the proposed LCRI on January 16, 2024.

Key Provisions in the Proposed LCRI

- Achieving 100% Lead Pipe Replacement within 10 years
- Locating Legacy Lead Pipes
- Improving Tap Sampling
- Lowering the Lead Action Level
- Strengthening Protections to Reduce Exposure



Achieving 100% Lead Pipe Replacement

- The proposed LCRI would require all water systems to replace lead services lines under their control, with the vast majority completing replacement within 10 years.
- While corrosion control can be effective at reducing lead exposure, removing lead pipes provides even greater public health protection by eliminating the key source of lead.
- Water systems would be required to replace all lead pipes regardless of whether they exceed the lead action level.



Locating Legacy Lead Pipes

- Knowing where lead pipes are is critical to replacing them efficiently and equitably.
- Water systems are currently required, under the 2021 LCRR, to provide an initial inventory of their lead service lines by October 16, 2024.
- Under the proposed LCRI, all water systems would be required to regularly update their inventories, validate inventories, create a service line replacement plan, and identify the materials of all service lines of unknown material.

Improving Tap Sampling and Lowering the Lead Action Level

- Water systems would be required to collect first liter and fifth liter samples at sites with lead service lines and use the higher of the two values calculating the system's 90th percentile lead level.
- EPA is proposing to lower the lead action level from 15 $\mu\text{g}/\text{L}$ to 10 $\mu\text{g}/\text{L}$ and eliminate the trigger level to reduce complexity.
- When a water system's lead sampling exceeds the action level, the system would be required to inform the public and take action to reduce lead exposure.
 - For example, the system would be required to install or adjust corrosion control treatment to reduce lead that leaches into drinking water.

Strengthening Protections to Reduce Exposure and Improving Transparency and Trust

- Water systems with multiple lead action level exceedances would be required to conduct additional outreach to consumers and make filters available to all consumers. The filters must be certified to reduce lead.
- The proposed rule would require water systems to communicate more frequently and proactively about lead service lines and the system's plans for replacing these lines.
- The proposed rule would revise the Consumer Confidence Report language to increase clarity about the health effects of lead, the water system's efforts to sample for lead in schools and child care facilities, and how consumers can access the water system's lead service line replacement plan.
- Systems would be required to notify the public within 24 hours if systemwide lead levels exceed the proposed lower action level, and EPA would continue to require systems to collect follow-up samples at sites with higher levels of lead.

Compliance Date

- EPA is proposing a compliance date of three years after the promulgation of the final LCRI and for systems to continue to comply with the LCR until that date, with the following exceptions:
 - EPA is proposing to retain the 2021 LCRR's October 16, 2024 compliance date for the initial LSL inventory, notification of service line material, associated reporting requirements, and Tier 1 public notification of a lead action level exceedance.
- With these limited exceptions, EPA is proposing that water systems would directly transition from the LCR to the LCRI for all rule provisions.
- Under the proposal, water systems would not be required to comply with the other requirements of the 2021 LCRR between October 16, 2024 and the LCRI compliance date.
- EPA intends to promulgate a final LCRI by October 16, 2024

Available Funding Sources

- The Bipartisan Infrastructure Law (BIL) provides for significant investments in safe drinking water infrastructure and drinking water programs.
- EPA is working to ensure the funds are available to drinking water systems, especially those within disadvantaged communities.
- Specific funds to potentially support implementation of the LCRI drinking water regulation:
 - \$11.7 billion: Funding to supplement the Drinking Water State Revolving Loan Fund (DWSRF)
 - \$15 billion: Funding for lead service line replacement projects and associated activities directly connected to the identification of and planning for the replacement of lead service lines.
- The WIIN Voluntary School and Child Care Lead Testing and Reduction Grant Program provides funding to States for lead testing and remediation in schools and child care facilities. This funding is for States, not water systems.

How EPA's Proposal Addresses Topics Discussed in the Prior NDWAC Consultation



Defining "Under the Control" of the Water System

- The proposed LCRI would require water systems to replace lead and GRR service lines, and any lead connectors encountered, that are “under the control” of the water system.
- EPA is proposing to treat a service line and lead connector as under the system’s control wherever a water system has adequate access (e.g., legal access, physical access) to conduct full service line replacement or replacement of the lead connector.
- EPA is not proposing to delineate the prerequisites or elements of “access” that a system would need to conduct full service line replacement because of the wide variation of relevant State and local laws and water tariff agreements as well as the potential for these to change over time. Instead, EPA emphasizes the many requirements proposed in the LCRI, in addition to funding and non-regulatory actions, that can increase a system’s likelihood of obtaining any necessary access to conduct a full service line replacement, such as providing transparency in the service line replacement plan. For example, EPA is proposing to require the water system to identify in its service line replacement plan any State or local laws or water tariff agreement requirements pertaining to its ability to gain adequate access.

Defining "Under the Control" of the Water System (cont.)

- EPA is proposing that, where customer consent is required by State or local law or water tariff agreement, the system would be required to make a reasonable effort to obtain property owner consent.
- EPA is proposing that a reasonable effort includes a minimum of at least four attempts to engage the customer using at least two different methods. If the water system is unable to obtain customer consent when required, the water system would not be required to conduct full service line replacement because, under those circumstances, the full service line would not be “under the control” of the operator of the system. The proposal also includes requirements and flexibilities to increase access and expedite full service line replacement.

Deferred Service Line Replacements

- EPA is proposing two pathways for water systems to defer their service line replacement deadline past 10 years.
- The first is proposed for systems with a high proportion of lead and GRR service lines in their distribution system relative to their total number of households served. EPA has proposed 0.039 replacements per household per year as a deferral threshold (equivalent to 39 service line replacements per 1,000 households per year). Systems with a higher per-household replacement rate would be eligible for a deferred replacement deadline.
- The second proposed pathway is for systems that would otherwise be required to replace greater than 10,000 service lines per year under the proposed 10-year replacement requirement.

Action Level Exceedance

- In the proposed LCRI, water systems that exceed the lead action level of 10 ppb would be required to take actions including CCT and public education. Under the LCRR, water systems that exceed the current lead action level of 15 ppb are required to conduct 24-hour (Tier 1) public notification to persons served by the water system within 24 hours of learning of the exceedance.
- If the LCRI is finalized as proposed, water systems would be required to conduct Tier 1 public notification for an exceedance of the lowered action level of 10 ppb following the compliance date of the LCRI (i.e., 3 years after the final LCRI is published). Water systems would be required to optimize or re-optimize OCCT and conduct public education. Small systems serving 3,300 people or fewer and NTNCWSs would be able to choose an alternative compliance option in lieu of the CCT requirements.

Multiple AL Exceedances

- EPA is proposing that systems with three lead action level exceedances in five years must:
 - Make filters certified for lead reduction available to all consumers served by the system.
 - Conduct at least one additional system-wide public education outreach activity, such as conducting a townhall meeting or participating in a community event, to raise additional awareness of the health effects of lead in drinking water, identify steps consumers can take to reduce their exposure, and provide information about how the water system is addressing the issue.
 - Repeat the public education activity every six months until the system no longer meets the multiple lead action level exceedance criteria.

The Small System Flexibilities Under the Proposed LCRI

- The proposed LCRI reduces the eligibility threshold for CWSs to those serving 3,300 people or fewer, from 10,000 people or fewer under the 2021 LCRR.
- EPA is proposing to eliminate service line replacement as a standalone compliance option because all systems would be required to conduct mandatory full-service line replacement of lead and GRR service lines, regardless of their 90th percentile lead level.
- Under the proposed LCRI, NTNCWSs and CWSs serving 3,300 or fewer people that exceed the lead action level of 10 ppb may choose implementation of POU devices or full replacement of lead-bearing plumbing materials in lieu of CCT with State approval.

Selected Requests for Comment from the Proposed LCRI



Achieving 100% Lead Pipe Replacement

- EPA is seeking feedback on topics including:
 - Whether it is feasible for systems across the nation to complete service line replacement in a shorter timeframe than ten years, such as in six, seven, or eight years.
 - Whether the proposed LCRI appropriately interprets “control” for the purposes of the mandatory replacement provision (i.e., require systems to conduct full service line replacement in situations where the system has access to conduct the full replacement).
 - The overall approach and basis to offer deferred service line replacement.

Locating Legacy Lead Pipes

- EPA is seeking feedback on topics including:
 - In the LCRI, EPA is proposing a requirement for systems to validate the accuracy of non-lead service lines in their inventory that were categorized using methods other than records review or visual inspection of at least two points along the line.
 - EPA is requesting comment on the number of validations required, the proposed 95 percent confidence level approach used to develop the number of validations required, the criteria for which methods used to categorize non-lead service lines should be included in the validation pool (including whether non-lead lines categorized based on records should be subject to validation), and the seven-year timeline for systems on a 10-year replacement deadline to complete the validation requirements.

Improving Tap Sampling

- EPA is seeking feedback on topics including:
 - Whether sites served by galvanized service lines or containing galvanized premise plumbing that are identified as ever being downstream of an LSL or lead connector should be included in the same tier as other sites with a current lead connector (*e.g.*, copper service line downstream of a lead connector).
 - The applicability of alternate sampling protocols, such as random daytime sampling, to assess CCT performance, increase customer participation, and other relevant factors.

Lowering the Lead Action Level

- EPA is seeking feedback on topics including:
 - The proposed lead action level of 0.010 mg/L, as well as comment and supporting data on alternative action levels, such as 0.005 mg/L, with regards to generally effective corrosion control treatment and identifying systems most at risk of elevated levels of lead in drinking water.
 - The use of the action level to determine when additional public education is required, and the use of the same action level for public education as for the CCT provisions.

Strengthening Protections to Reduce Exposure

- EPA is seeking feedback on topics including:
 - Whether water systems should be required to take additional actions when the system exceeds the lead action level multiple times and if so, what actions are appropriate and feasible.
 - Whether the Agency should allow systems serving up to 10,000 persons (or another threshold) to be eligible to use the small system compliance flexibility provision.
 - Whether EPA should require CWSs to make school and child care facility sampling results publicly available, and if so, how frequently and in what manner.



EPA's LCRI Website:

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

