BLACK & VEATCH

Lead and Copper Rule
EPA's Finalized Revisions

August 2021 (updated)

On Jan. 15, 2021, the United States Environmental Protection Agency (EPA) published final revisions to the Lead and Copper Rule. The goal of the revised rule is to identify areas most impacted by lead contamination and develop plans to mitigate the risk.

All public water systems (PWS) must comply with the Lead and Copper Revised Rule (LCRR). The required response actions and timelines depend on the size of the system and lead levels detected.

KEY RULE ELEMENTS THAT ARE UNCHANGED

- **Lead action level (AL) is 15 µg/L**, and copper AL is 1.3 mg/L.
- **AL exceedance (ALE)** is when a 90th percentile value from an LCR monitoring period exceeds the AL.

MAJOR CHANGES FOR ALL PUBLIC WATER SYSTEMS

Service Lines

- Develop a publicly available **lead service line (LSL) inventory** on the PWS's side and homeowner's side within 3 years (includes downstream galvanized iron service lines and "lead status unknown" service lines).
- Develop **LSL replacement plan** if system contains known or possible LSLs.
- **Replace system-owned lead connectors** (pigtails/goosenecks) whenever encountered and offer to replace customer-owned lead connector at no cost to PWS.
- Replace LSL at a rolling two-year average of 3% annually if lead ALE.
- Replace water system-owned portion of an LSL when a customer chooses to replace their portion of the LSL.

Sampling

- **New tier structure for LCRR sampling** requires monitoring at sites with LSLs if available.
- Maintains 1st-liter sampling at all sites, but **adds 5th-liter sampling at sites with LSLs** to capture higher lead levels
- **"Find-and-Fix"** additional monitoring at individual sites with lead ALE to locate source of lead.

Notification

- **Notify all customers within 24 hours of lead ALE**, and notify individual customers within 3 days if their tap sample exceeded the lead AL.

Schools and Childcare

- Test for lead at **20% of elementary schools** (pre-8th grade) and **20% of childcare facilities** annually for 5 years.

Flexibility

- Flexibility for **small systems serving less than 10,000** based on primacy agency approval.

Pipe Loop Tests

QUESTIONS? Contact us.

Technical Solutions
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Our team of dedicated water treatment technology professionals design and conduct corrosion studies as well as provide guidance for locating LSLs.

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iMG, a BV wholly owned subsidiary, helps clients access funding programs like SRF and WIFIA plus private financing.

IMPACT OF NEW LEAD TRIGGER LEVEL ON WATER SYSTEMS

A new lead trigger level of 10 µg/L (based on 90th percentile value) will cause PWSs to take proactive actions to reduce lead levels prior to exceeding the lead AL. Exceeding the lead trigger level could require the following, based on primacy agency approval:

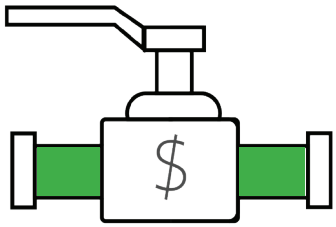
- Conduct a corrosion control (CCT) study to re-optimize the existing CCT or identify a CCT (i.e., small/medium systems that did not previously treat for corrosion).
- Complete annual LCR monitoring at the standard number of sites.
- Conduct public outreach on ways to minimize lead leaching.
- Set an annual goal for replacing LSLs.

PREVIOUSLY ALLOWED BUT NOW PROHIBITED IN LCRR

- "Testing out" of LSLs based on sampling results; instead, LSLs will be included in inventory for replacement.
- Partial LSL replacements except in rare circumstances.
- Pre-flushing and removal of aerators prior to LCR monitoring.
- **Calcium hardness no longer qualifies** as an accepted CCT, and **orthophosphate is the only accepted phosphate-based corrosion inhibitor.**
- Water quality parameter (WQP) monitoring related to calcium hardness (calcium, conductivity and temperature).

PIPE LOOP TESTING

- Testing will be required for systems with LSLs that exceed the lead trigger level.
- Must test orthophosphate at 1 and 3 mg/L dosages and pH/alkalinity adjustments.



FUNDING SOURCES

The EPA's Drinking Water **State Revolving Fund** (DWSRF) program has more than $1.1 billion in new federal grant money available to help remove lead service lines among other drinking and surface water protection projects. The Water Infrastructure Finance and Innovation Act (WIFIA) has $5.5 billion in total funding and has LSL replacement as a top priority. The U.S. Senate-approved bipartisan infrastructure bill provides $15 billion for lead service line replacement projects and associated activities to be invested in the DWSRF program and in Water Infrastructure Improvements for the Nation Act (WIIN) grants.

ACTIONS TO CONSIDER

- **Develop an LSL inventory** and **identify future sampling sites** based on new LCRR tier structure and requirement to sample at schools and childcare facilities.
- **Plan for LSL replacement programs** and **apply for funding opportunities**.
- **Begin** a **corrosion study** if the system's most recent 90th percentile lead level was greater than the new trigger level of 10 µg/L, to either re-optimize CCT or determine an optimal one. Also, **include** a corrosion study if water sources are expected to be changed or added or if treatment processes are to be modified.

SCHEDULE

The EPA has extended the effective date to Dec. 16, 2021, to allow for public comment and further review of the rule. Additionally, the compliance date has been delayed until Oct. 16, 2024.