The New Lead and Copper Rule

On December 22, 2020, U.S. Environmental Protection Agency (EPA) finalized the first major update to the Lead and Copper Rule (LCR) in nearly 30 years. EPA's new rule strengthens every aspect of the LCR to better protect children and communities from the risks of lead exposure. The new LCR will **better protect children** at elementary schools and child care facilities, **get the lead out** of our nation's drinking water, and **empower communities** through information.

In older homes and buildings, lead can leach from service lines, solder, and fixtures into tap water and become a significant source of lead exposure. In children, lead exposure can cause irreversible and life-long health effects, including decreasing IQ, focus, and academic achievement. EPA's new Lead and Copper Rule strengthens regulatory requirements to better protect children and communities from lead in drinking water.

Better Protecting Children at Elementary Schools and Child Care Facilities

Children spend a large amount of time in elementary schools and child care facilities and lead in the internal plumbing of these facilities can pose a risk to children's health. For the first time, the new Lead and Copper Rule requires that community water systems test for lead in drinking water in elementary schools and child care facilities that they serve. The old rule had no federal requirement for community water systems to test for lead in drinking water in these buildings. This common sense and critical improvement ensures that children—who are at increased risk from lead exposure—are protected where they spend a significant amount of time learning and playing. The water system is also required to provide timely results along with information about the actions the elementary school or child care facility can take to reduce lead in drinking water.

Getting the Lead Out

EPA's new rule uses science-based testing protocols to find more sources of lead in drinking water. The new rule also triggers actions to address lead earlier in more communities and reduces lead by more effectively managing corrosion control treatment, closing loopholes, and replacing more lead service lines in their entirety.

Better Science, Better Testing

The old rule enabled sampling techniques that could underestimate lead in drinking water. Based on better science, the new LCR requires water systems to follow new, improved tap sampling procedures that will better locate elevated levels of lead in drinking water. One key improvement in testing protocols is the new "fifth liter" sampling requirement, which captures lead that can enter drinking water from a lead service line (LSL)—a lead pipe that connects tap-water service between a water main and house or building. Under the new rule, a sampler must draw four liters of water before collecting a test sample so that the water is more likely to come from the lead service line and not the internal plumbing of a building. To get the most accurate test results, the rule also requires wide-mouth bottles for collecting samples and prohibits sampling instructions that recommend flushing and cleaning or removing the screen (called an aerator) that covers the

faucet before collecting samples. Additionally, to target homes with the highest potential for elevated lead levels, systems must collect samples at homes with lead service lines. If there are no LSLs, systems must collect samples from other leaded plumbing. When an individual sample at a home exceeds 15 ppb, systems must conduct follow-up sampling as part of a find-and-fix process to identify sources of lead and actions to reduce lead in the drinking water.

Triggering Actions to Reduce Lead Exposure Earlier and in More Communities

The new LCR jumpstarts corrosion control and actions to replace lead service lines—the primary sources of lead in drinking water—in more communities across the country. Because lead can corrode (or leach) from leaded plumbing as water flows through it, systems that take steps to control that corrosion or remove lead service lines can reduce the amount of lead that makes it into the drinking water supply. The rule establishes a new threshold of 10 ppb, that when exceeded, requires more and rapid implementation of corrosion control treatment to reduce lead in drinking water. The old rule allowed up to 48 months—four years—to pass in our small towns after a system exceeded the 15 ppb action level before corrosion control was in place. The new rule's trigger level requires systems that already have corrosion control to re-optimize their treatment. It also requires systems that do not have corrosion control to conduct a corrosion control study to identify the best treatment approach. If that system exceeds the action level in the future, the system must install the treatment it identified in its study right away. The 10 ppb trigger level also requires systems to start lead service line replacement programs.

Closing Loopholes and Replacing More Lead Service Lines in Their Entirety

The new LCR will drive more instances where lead service lines are replaced in their entirety. The old rule created so many loopholes that since 1991—over nearly 30 years—only 1 percent of utilities actually replaced lead pipes as a result of an action level exceedance. Under the new rule, water systems will be required to fully replace at least 3 percent of lead service lines each year when 10 percent of sampling results are above 15 ppb. The new rule's real 3 percent replacement rate will do more to remove lead service lines than the old rule's unmet 7 percent rate by propelling early action, closing loopholes, and strengthening replacement requirements. Under the new rule, systems:

- Must have a plan in place and must start replacing lines as soon as sample results are above the trigger or action level.
- Cannot avoid replacing lead service lines through testing.
- Are required to replace the water system-owned portion of a lead service line when a customer chooses to replace their customer-owned portion of the line.

Additionally, partial lead service line replacements, which can lead to short term spikes in lead concentrations, will not meet the new requirements. Under the old rule, partial service line replacements were allowed and were common.

Empowering Communities

In order for individuals, communities, water systems, and local governments to effectively take action to reduce lead in drinking water, they need to know where lead service lines are and what resources are available to help address lead in drinking water. The new Lead and Copper Rule builds the information infrastructure needed to empower these decisions.

Public Inventory of Lead Service Lines

Under the new rule, water systems are required to identify and make public the locations of lead service lines, following the example of many cities across the country who have proactively taken this step. By providing thorough and transparent information on where lead service lines exist, communities can make informed decisions to reduce lead exposure. Additionally, residents with a known or potential lead service line will be notified and receive information about steps that they can take to reduce their exposure to lead in drinking water.

Timely Testing Notifications and Lead Reduction Options for Homeowners

If a sample taken from a home has a result over 15 ppb of lead, the water system must notify occupants of the home within three days, so that steps to reduce lead exposure can be taken immediately. Notification of tap sample results under 15 ppb will occur within 30 days. If there is a systemwide action level exceedance, water systems will notify all customers within 24 hours and provide educational materials within 60 days. Water systems will also notify homeowners and building owners about opportunities to replace lead service lines, including information about financial assistance programs, if available, to help pay for replacing the customer-owned side of the line.

Information on Funding Resources to Support Lead Service Line Replacement

To help communities as they make decisions about funding, EPA has compiled information about federal funding, case studies, and other additional resources to assist states, local and tribal governments, and water utilities. These options include EPA's Drinking Water State Revolving Loan Fund, the Water Infrastructure Improvements for the Nation Act (WIIN) Grant, Water Infrastructure Finance and Innovation Act (WIFIA) financing program, as well as the Housing and Urban Development's (HUD) Community Development Block Grants. For a list of funding opportunities and for additional information on how to apply for and meet the funding requirements please visit: www.epa.gov/safewater/pipereplacement.

For more information on the new Lead and Copper Rule visit:
https://www.epa.gov/ground-water-and-drinking-water/final-revisions-lead-and-copper-rule