



AMERICAN WATER

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LEAD

A growing number of utilities are shifting towards replacing both the utility-owned portion and the homeowner portion of lead service lines as soon as possible. American Water has been at the forefront of working with policy-makers and other stakeholders to endorse this approach because doing so is critical for protecting public health.

FOR MORE INFORMATION

For more information, customers can contact the US Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

CONCERN

The risk of exposure to lead is a health concern. Properly managed, the risk is mitigated. Prior to WWII, lead was used in many locations for the service line connection between a house or building and the utility water main, and lead was a significant component of copper pipe solder and brass plumbing fixtures until later in the 20th century. Although lead is almost always below detectable levels in treated water supplied to a public distribution system, lead can be leached from lead

service lines (LSLs), lead solder and lead-bearing plumbing fixtures that are still present in many older homes. Elevated levels of lead in drinking water pose a potential risk, particularly to children and fetuses, possibly causing developmental issues.

BACKGROUND

In 1991, the U.S. Environmental Protection Agency (EPA) passed the Lead and Copper Rule (LCR), which set requirements for drinking water utilities to collect samples from a representative number of households on a periodic basis to assess the level of lead present at customer taps.

The LCR requires utilities to evaluate and improve their corrosion control practices if results from this periodic monitoring reveal lead (or copper) concentrations exceed a regulatory action level in more than 10 percent of samples.

Because of the complexity of the issue, the EPA has revised the LCR three times since its original publication, and is now developing a fourth revision.

Even with optimal corrosion control in place, customers can still be at a potential risk if water within lead-bearing premise plumbing systems stagnates or hot water is used as a source for drinking water or cooking/food preparation.

CHALLENGES

Although it is relatively easy to understand the potential sources of lead in drinking water, funding the solutions to reduce or eliminate the potential risks has proven particularly challenging. Oftentimes, the sources of lead are largely within

American Water is committed to the safety of our customers and communities. Across the nation, we sample for lead on a routine basis and our systems continue to be in compliance. We continue to work with the EPA, state regulators and others in the industry to improve water quality and safety through the rule development process.”

Peter J. Keenan

Senior Director, Engineering Technology & Water Research



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the plumbing systems owned by the customer rather than the utility. Tenant-landlord relationships add another level of complexity to this issue.

The need for a solution to remove/retire lead service lines regardless of ownership has become a priority as new research on the issue emerges. The growing body of scientific research indicates partial lead service line replacements, where only the utility-owned portion is replaced and the customer-owned portion is left intact, have not been effective in reducing potential lead exposure, and may make the situation worse. As utilities experience an increasing need to upgrade water mains, they also find that delaying infrastructure projects until homeowners are willing to fund their portion of a service line replacement is not a viable management alternative.

SOLUTIONS

Given the health risks involved, a growing number of utilities are shifting towards replacing both the utility-owned portion and the homeowner portion of LSLs as soon as possible.

American Water has been at the forefront of working with state legislatures, policy-makers and other stakeholders to endorse this approach because doing so is critical for protecting public health and assuring that water utilities can cost-effectively manage the replacement of aging infrastructure.

American Water has successfully worked with public utility commissions in several states to support this common-sense approach, and we continue to work with our other commissions and stakeholders to find a pathway to do the same. On a continuous basis, American Water communicates, educates and works with customers on steps to minimize exposure to lead.

We also participate in the Lead Service Line Replacement Collaborative (Isrlcollaborative.org), a joint effort of 25 national public health, water utility, environmental, labor, consumer, housing, and state and local governmental organizations to accelerate full removal of the lead pipes providing drinking water to millions of American homes. American Water continues to look for better ways to maximize drinking water quality protection and also improve the efficiency of LSL replacement.

HOW AMERICAN WATER HAS CONTRIBUTED TO THE BODY OF SCIENCE ON LEAD



American Water has been a leader in developing best practices for addressing lead in drinking water systems for many years. For example, an American Water research scientist served as principal investigator for the 2011 study entitled "Comparison of Zinc Versus Non-Zinc Corrosion Control for Lead and Copper," which was jointly funded by the U.S. Environmental Protection Agency and Water Research Foundation (WRF). This study helped expand our knowledge and understanding of one of the most reliable and effective forms of corrosion control for lead currently being used in the industry.

American Water is also principal investigator for WRF Project 4693, which is entitled "Service Line Material Identification Techniques". The purpose of this study is to summarize state-of-the-art techniques for identifying LSLs, as well as identify any innovative technologies that hold significant promise for improving the efficiency or effectiveness of locating LSLs.

American Water continues to work with university and industry partners to evaluate new methods that may improve our ability to efficiently locate LSLs.