EARTHJUSTICE

campaign for lead free water

THE LEAD AND COPPER RULE of the Safe Drinking Water Act

What is the Lead & Copper Rule?

The Lead and Copper Rule (LCR) is a complex set of regulations established in 1991 under the Safe Drinking Water Act. While intended to protect the public from lead in drinking water, the LCR focuses only on detecting and preventing severe contamination across a community. It is not a health-based regulation and does not address high lead levels in individual homes. The LCR is outdated and flawed.

Under the Trump administration, the LCR underwent major revisions for the first time in 30 years. But these revisions did not address the rule's main shortcomings, including its failure to require the speedy removal of lead service lines. Under the Biden administration, EPA put the rule's changes on hold.

Drinking water is an underestimated source of lead. Millions of people will continue to be exposed to lead from their taps unless the LCR is significantly changed.

Risks Associated with Exposure to Lead

Public health experts agree—no amount of lead in drinking water is safe for any age group, but exposures are especially dangerous for fetuses, formula-fed infants, and young children. Lead is a powerful and irreversible neurotoxin; drinking water can be the primary or sole source of exposure to lead and is associated with damage to the brain, ADHD, underperformance in school, cardiovascular disease, miscarriage, and stillbirth.

How Does Lead Get into Drinking Water?

Lead leaches into drinking water through lead service lines and other lead-bearing plumbing, such as solder and brass. There are many factors that can cause lead to leach. Some factors can be controlled with chemical treatments while others, such as temperature, the natural deterioration of plumbing due to age, and physical disturbance, cannot.

How Does the LCR Help Reduce Lead in Drinking Water?

The LCR requires water utilities to periodically test the tap water of a small number of homes. When over 10% of tests measure above the LCR "lead action level" of 15 parts per billion—a level EPA admits is not based on health or safety—the LCR requires water utilities to take the following actions:

- Treat the water to make it less corrosive—that is, less able to dislodge lead from plumbing.
- If the treatment does not bring overall lead levels below 15 parts per billion, start replacing the portion of lead service lines in public space—this is called "partial lead service line replacement."
- Send public notices about measures people can take to prevent exposures.

How Does the LCR Fail Communities?

- *The LCR does not provide individual protection from lead in drinking water*
    - A water utility is in compliance with the LCR when 90 percent or more of tap water samples in a small number of homes do not exceed the LCR's non-health-based lead action level.
    - Compliance suggests that lead-in-water contamination across a community is not severe or widespread. It does not mean that the water in individual homes is safe to drink and cook with.
    - Thus, a water utility can be in compliance with the LCR, and not be required to take any corrective actions, even if individual taps in individual homes dispense lead-in-water levels in the hundreds and even thousands of parts per billion lead.

Solution: Institute a Maximum Contaminant Level (MCL) at the tap for lead, at no higher than 5 parts per billion, an exceedance of which would constitute a legal violation requiring corrective action.

- *Lead-in-water levels are routinely underestimated and underreported*

  The LCR's sampling requirements are neither designed nor implemented to capture worst-case lead-in-water levels, as intended by the rule and required by the Safe Drinking Water Act. The rule also contains convoluted and ineffective reporting requirements. These weaknesses mask lead-in-water levels in locations where corrective action would be required.

  Solution: Mandate collection of both first-liter samples and samples assured to capture service line water from homes with a lead service line. Require reporting of all sampling results to an electronic data system shared by EPA and states.

- *Lead service line replacement under the LCR is unacceptably slow and about to get slower*

  An important first step to reduce exposure to lead in water is to remove all lead service lines. There are between 6 and 10 million lead service lines in the country, serving up to 22 million people. Yet:

  - LCR neither mandates proactive replacement of lead service lines nor requires water utilities to bear the expense of full lead service line replacement.
  - Once required to remove lead service lines, water utilities must partially remove seven percent of their lead service lines annually and may stop replacement if lead levels subsequently fall below the non-health-based lead action level of 15 parts per billion.
  - Recent revisions to the LCR slow the pace of compelled replacement to three percent annually, and also allow utilities serving fewer than 10,000 customers—which comprise 92 percent of water utilities—to avoid lead service line replacement altogether.

  Solution: Require utilities to proactively replace all lead service lines within 10 years and to maintain the seven percent annual replacement requirement following a lead action level exceedance.

- *Corrective action could be, but is not, required at lead levels that can cause harm*

  The LCR's lead action level, above which corrective action is required, is not health-based.

  Solution: Set an MCL for lead in tap water. Short of this, set a lead action level no higher than 5 ppb.

- *Public education about lead in drinking water is insufficient at best and misleading at worst*

  The LCR requires comprehensive public education only when severe, community-wide contamination is detected. It does not require routine, precautionary communications explaining that lead-bearing plumbing is present in almost every building, regardless of the building's age, and poses a significant health risk, even when water utilities are in compliance with the LCR.

  Solution: Revise the LCR's public education requirement to ensure people understand the prevalence and risks of lead in tap water and know what measures they can take to prevent exposures.

- *The LCR does not protect children in schools and childcare facilities*

  The LCR does not directly address lead in drinking water in schools and childcare facilities. Although the Trump Administration's revisions try to fix this, the new provisions are weak and wasteful. They are also likely to result in false assurances of safety and prolong routine and preventable exposures.

  Solution: Institute a filter-first program, drawing from model bills like the Natural Resources Defense Council's (NRDC's) "Model State Legislation: 'Get the Lead Out of School Drinking Water Act'" and mandate comprehensive public education about lead in school drinking water.

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