



MEMORANDUM

February 7, 2020

To: Subcommittee on Environment and Climate Change Members and Staff

Fr: Committee on Energy and Commerce Staff

Re: Hearing on “EPA’s Lead and Copper Rule Proposal: Falling Short of Protecting Public Health”

On **Tuesday, February 11, 2020, at 10:30 a.m. in room 2322 of the Rayburn House Office Building**, the Subcommittee on Environment and Climate Change will hold an oversight hearing entitled, “EPA’s Lead and Copper Rule Proposal: Falling Short of Protecting Public Health.” The hearing will examine EPA’s ongoing efforts to revise the drinking water standard for lead and copper, including the proposed rule published November 13, 2019.

I. BACKGROUND

A. Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) requires the Environmental Protection Agency (EPA) to set standards for naturally-occurring and man-made contaminants in the nation’s public water supply.¹ The statute also authorizes EPA to provide infrastructure funding, technical assistance, and guidance for states, water utilities, schools, and more. SDWA also established EPA’s Underground Injection Control program, which protects underground drinking water sources from underground injection, including oil and gas exploration and production and carbon sequestration.

1. Drinking Water Standards-Setting and Implementation

The SDWA standard setting process has relied on a five-year cycle since 1996. The process begins with publication of the Contaminant Candidate List (CCL), which, under SDWA, must be revised every five years. The next step is publication of the Unregulated Contaminant Monitoring Rule, which is intended to develop occurrence data needed to make regulatory decisions for the candidate contaminants; this is also meant to be revised every five years. The third step is regulatory determinations. SDWA requires EPA to decide whether to regulate at least five contaminants. When EPA determines regulation is warranted, it begins the rulemaking

¹ 42 U.S.C. § 300.

process. Since 1996, EPA has only determined that regulation is warranted for one contaminant.²

Drinking water standards have two primary components, a Maximum Contaminant Level Goal (MCLG) and a Maximum Contaminant Level (MCL) or Treatment Technique. A Treatment Technique is an enforceable requirement to employ a particular treatment or demonstrate a level of performance. The MCLG is set at a level where no adverse health effects are anticipated (including a margin of safety); however, it is not an enforceable requirement. Generally, an MCL or Treatment Technique is supposed to be set as close to the MCLG as feasible.³ Nevertheless, SDWA allows EPA, based on cost-benefit considerations, to require a Treatment Technique in lieu of an MCL, thereby setting a weaker standard.⁴

2. *Regulating Contaminants*

Currently, national primary drinking water standards regulate more than 80 contaminants or contaminant groups, including microorganisms, disinfection byproducts, radionuclides, and heavy metals such as arsenic, mercury, and lead.⁵ Most of these standards were adopted, at least initially, before the 1996 amendments. Others were adopted pursuant to specific deadlines and processes included in the law. SDWA requires EPA to review and, as necessary, revise existing drinking water standards every six years.⁶

SDWA largely delegates implementation of those standards to the states and territories, who have the ability under the law to apply for primary enforcement authority, known as primacy. The law requires EPA to respond to any primacy application within 90 days and grant primacy for any state or territory demonstrating that its requirements are at least as stringent as the federal requirements.⁷ In states with primacy, EPA maintains backstop enforcement authority.⁸

B. History of the Lead and Copper Rule

EPA promulgated the Lead and Copper Rule (LCR) in 1991. Lead causes serious adverse health effects, including lower IQ, slowed growth, anemia, cardiovascular disease,

² The final regulatory determination for perchlorate was published in 2011 and the proposed rule was published in June of 2019. *See* 84 Fed. Reg. 30524.

³ U.S. Environmental Protection Agency, *How EPA Regulates Drinking Water Contaminants* (Jan. 27, 2020) (epa.gov/sdwa/how-epa-regulates-drinking-water-contaminants).

⁴ 42 U.S.C. § 300f. *See also* note 13.

⁵ U.S. Environmental Protection Agency, *National Primary Drinking Water Regulations* (May 2009) (epa.gov/sites/production/files/2016-06/documents/npwdr_complete_table.pdf).

⁶ 42 U.S.C. § 300f.

⁷ *Id.*

⁸ *Id.*

kidney disease, and reproductive problems.⁹ Despite these risks, lead was used in the production of drinking water pipes, plumbing fixtures, and solder until SDWA prohibited such uses in 1986.¹⁰ Many lead service lines (LSLs) and fixtures are still in use and are the primary source of lead in drinking water.¹¹

Since 1991, the MCLG for lead has been set at zero. The EPA and the Centers for Disease Control and Prevention agree that lead is harmful to people's health and that there is no known safe level of lead in children.¹² EPA has not, to date, set an MCL for lead, relying instead on a Treatment Technique. This means that water systems must adopt treatment for corrosion if monitoring shows lead levels above a threshold, called the action level. Currently, action is required if ten percent or more of tap water samples exceed 15 parts per billion (ppb). As the Agency has itself stated, "The EPA established the lead action level in the 1991 [sic] based on feasibility and not based on impact on public health."¹³ Exceedances themselves do not amount to LCR violations; a violation occurs when the water system fails to take actions required by the LCR.

The rule has undergone several minor revisions,¹⁴ but according to EPA, the minor revisions "did not change the action level, MCLG, or the rule's basic requirements."¹⁵ In 2004, in response to concerns over lead in the drinking water in Washington, DC, EPA initiated a nationwide review of the LCR. At the review's conclusion, EPA identified short-term and long-term actions needed. EPA published the short-term LCR revisions in 2007. For the long-term revisions, EPA sought input from a special working group of the National Drinking Water Advisory Committee (NDWAC). That working group delivered its recommendations in 2015. The proposed rule issued in November is the culmination of that process.

⁹ U.S. Environmental Protection Agency, *Learn About Lead* (epa.gov/lead/learn-about-lead) (Aug. 12, 2019).

¹⁰ 42 U.S.C. 300g.

¹¹ U.S. Environmental Protection Agency, *Basic Information About Lead in Drinking Water* (Nov. 18, 2019) (epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water).

¹² *Id.*

¹³ U.S. Environmental Protection Agency, *National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions*, 84 Fed. Reg. 61691 (Nov. 13, 2019) (proposed rule).

¹⁴ Minor revisions were made in 2000, 2004, and 2007. The 2000 revisions made changes in monitoring and reporting requirements (*See* 65 Fed. Reg. 1950). The 2004 revisions were considered technical to restore text inadvertently struck in the 2000 revisions (*See* 69 Fed. Reg. 38850). The 2007 revisions are known as the "Short Term Revisions" (*See* 72 Fed. Reg. 57782).

¹⁵ U.S. Environmental Protection Agency, *National Primary Drinking Water Regulations for Lead and Copper: Short-Term Regulatory Revisions and Clarifications*, 72 Fed. Reg. 57784 (Oct. 10, 2007) (final rule).

The NDWAC working group offered an overarching recommendation for a paradigm shift in the LCR, saying,

To truly solve the problem of exposure to lead in drinking water, the LCRWG [Lead and Copper Rule Working Group] concluded that lead-bearing materials should be removed from contact with drinking water to the greatest degree possible, while minimizing the risk of exposure in the meantime.¹⁶

This approach would require proactive replacement of LSLs and other lead plumbing materials, rather than reactive replacement after lead is found in tap water. In a rare dissenting opinion, Dr. Yanna Lambrinidou, a NDWAC member, urged a complete and mandatory removal of all LSLs, as well as a ban on partial line replacement.¹⁷

In addition to proactively replacing LSLs, the working group also made several specific recommendations, including:

- A national information clearinghouse for the public and targeted information for vulnerable populations;
- Requiring an assessment of new corrosion control needs any time a change in source water or treatment is anticipated;
- Allowing consumers to request lead monitoring at their taps;
- Increased monitoring for the effectiveness of corrosion controls; and
- Establishing a health-based household action level.

C. Recent Incidences of Lead Contamination

Congress banned lead water pipes 30 years ago, but between 3.3 and 10 million older pipes remain in use throughout the country.¹⁸ In the last 15 years, many cities – including Newark, New Jersey; Washington, DC; Flint, Michigan; Durham and Greenville, North Carolina; Columbia, South Carolina; and Jackson, Mississippi – have reported unsafe levels of lead in their drinking water.

As noted above, EPA initiated the recent proposed LCR revisions in response to the 2004 discovery of widespread lead contamination in the drinking water of Washington, DC. A change in the disinfectant used by the Washington Aqueduct caused a contamination surge that altered

¹⁶ U.S. Environmental Protection Agency, *Report of the Lead and Copper Rule Working Group to the National Drinking Water Advisory Council* (Aug. 24, 2015).

¹⁷ Dissent letter from Yanna Lambrinidou, Ph.D., President of Parents for Nontoxic Alternatives and Member of National Drinking Water Advisory Council (NDWAC), to EPA NDWAC (October 28, 2015).

¹⁸ Environmental Defense Fund, *Lead pipes: A threat to kids across America* (edf.org/health/lead-pipes-threat-kids-across-america) (accessed Feb. 6, 2020).

the water's corrosivity.¹⁹ The DC Water and Sewer Authority (WASA) worked to replace LSLs to address the contamination, but conducted many partial line replacements, now known to be unsafe.²⁰ In 2018, Washington, DC, changed its laws to allow WASA to pay for LSL replacement on private property, paving the way for more full LSL replacement.²¹

In April 2014, the City of Flint, Michigan, changed its water source as a temporary, cost-saving measure. That decision, made by city leaders at the time, led to large scale lead pipe corrosion in the distribution system.²² Academic researchers and a local pediatrician, Dr. Mona Hanna-Attisha, discovered the contamination surge and documented large increases in the blood lead levels of local children.²³ The crisis prompted the declaration of a State of Emergency and Congressional action to provide an additional \$100 million to the State of Michigan to fund LSL replacement in Flint.²⁴ As of January 24, 2020, Flint has replaced 9,499 of an estimated 12,000 LSLs.²⁵

In recent years, high levels of lead contamination also have impacted the drinking water of Newark, New Jersey residents. Newark reported exceedances of EPA's lead action level in 2017, leading to efforts to distribute water filters and, eventually, bottled water.²⁶ An ordinance passed in September 2019 will allow city officials to come onto people's properties to replace their LSLs with or without their permission partly to allow renters to also get LSL replacement.²⁷ As of January 2020, Newark's program to replace all LSLs has completed 4,474 lines of 18,000 in the city.²⁸

¹⁹ Government Accountability Office, *District of Columbia's Drinking Water: Agencies Have Improved Coordination, but Key Challenges Remain in Protecting the Public from Elevated Lead Levels* (Mar. 2005) (GAO-05-344).

²⁰ *Id.*

²¹ DC Water, *New District Lead Service Line Replacement Program Offers Historic Opportunity to Replace Old Plumbing* (dcwater.com/whats-going-on/news/new-district-lead-service-line-replacement-program-offers-historic-opportunity) (Dec. 6, 2018).

²² *I don't even let my dogs drink this water*, Associated Press (Mar. 4, 2015).

²³ Mona Hanna-Attisha, *Elevated blood lead levels in children associated with the Flint drinking water crisis: a spatial analysis of risk and public health response*, *American Journal of Public Health* (Feb. 2016).

²⁴ Pub. L. 114-322 § 2201 (2016).

²⁵ City of Flint, Michigan, *Service Line Replacement Program Page* (www.cityofflint.com/fast-start) (accessed Feb. 6, 2020).

²⁶ *Toxic lead, scared parents and simmering anger: A month inside a city without clean water*, *Washington Post* (Oct. 3, 2019).

²⁷ City of Newark, New Jersey, *Lead Service Line Replacement Program Page*, (newarklead serviceline.com) (accessed Feb. 6, 2020).

²⁸ *Newark lead levels are lower but still elevated, new water tests show*, *NJ.com* (Jan. 7, 2020).

II. THE LEAD AND COPPER RULE REVISIONS PROPOSED RULE

The proposed rule EPA published in November 2019 does not require proactive LSL replacement, change the lead action level, or include a health-based household lead action level.²⁹ Below are some of the most significant revisions proposed:

- The addition of a “trigger level” at 10 ppb, which would require consultation and planning before the action level is reached. EPA acknowledges in the proposal that the selection of 10 ppb is not health-based;
- A requirement for water systems to inventory their LSLs;
- A requirement that water systems replace LSLs when an individual homeowner is replacing their private portion of the line;
- Lowering the required replacement rate for LSLs in systems exceeding the action level from seven to three percent replacement per year;
- A prohibition on some tap sampling procedures that have been used to artificially lower results to improve monitoring data quality;
- Speeding up notification of exceedances from 30 days to 24 hours; and
- A requirement to sample drinking water outlets in each school and childcare facility served.

III. WITNESSES

The following witnesses have been invited to testify:

Kim Gaddy

Environmental Justice Organizer
Clean Water Action of New Jersey

Mona Hanna-Attisha, MD, MPH, FAAP

Director, Pediatric Public Health Initiative
C.S. Mott Endowed Professor of Public Health, Division of Public Health
Associate Professor, Department of Pediatrics and Human Development
Michigan State University College of Human Medicine

Angela Licata

Deputy Commissioner
New York City Department of Environmental Protection
On behalf of Association of Metropolitan Water Agencies

Cathy Tucker-Vogel

Public Water Supply Section Chief
Kansas Department of Health & Environment
On behalf of Association of State Drinking Water Administrators

²⁹ See note 13.

Mae Wu

Senior Director, Health & Food

Senior Attorney, Healthy People & Thriving Communities Program

Natural Resources Defense Council

Steve Estes-Smargiassi

Director of Planning and Sustainability

Massachusetts Water Resources Authority

On behalf of American Water Works Association