AMERICAN PUBLIC HEALTH ASSOCIATION
For science. For action. For health.

February 11, 2020

Mr. David P. Ross
Assistant Administrator
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U.S. Environmental Protection Agency
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Re: National Primary Drinking Water Regulations: Lead and Copper Rule Revisions, Docket ID No EPA-HQ-OW-2017-0300

Dear Assistant Administrator Ross:

The American Public Health Association submits the following comments regarding the National Primary Drinking Water Regulations: Lead and Copper Rule Revisions. APHA is a diverse community of public health professionals that champions the health of all people and communities. The Lead and Copper Rule was enacted in 1991 to protect the health of the public from the negative effects of lead and copper exposure in drinking water. Those exposed to lead experience biologic and neurologic damage and those most at risk include pregnant women, children, low-income individuals, and individuals of color.[1] Copper exposure also has ill health effects, such as liver and kidney damage and gastrointestinal distress.[2]

An estimated six to ten million US homes receive their drinking water from lead service lines.[3] APHA supports the revision to create a publicly-accessible inventory of all water system-owned

[1] National Environmental Health Partnership Council. (2017). *Environmental Health Playbook: Investing in a Robust Environmental Health System*. apha.org/nehpc
[2] U.S. Environmental Protection Agency, Office of Water. *Lead and Copper Rule Revisions White Paper*. (2016). Retrieved from: https://www.epa.gov/sites/production/files/2016-10/documents/508_lcr_revisions_white_paper_final_10.26.16.pdf
[3] Environmental Defense Fund. *Recognizing efforts to replace lead service lines.* https://www.edf.org/health/recognizing-efforts-replace-lead-service-lines

and customer-owned LSL in its distribution system. This will inform and help prioritize LSL replacement across the U.S. Unfortunately, full service line replacement is not required under the proposed LCR revisions. As cited in the revisions, EPA's Science Advisory Board conducted an evaluation of the current scientific literature assessing the effectiveness of partial lead service line replacement in reducing lead levels in water. Though more evidence is needed, the SAB determined that partial LSLR may increase lead exposure in the short-term. Additionally, partial LSLR has potential to disproportionately impact low-income households if policies require residents to pay. We recommend funding assistance or requiring water systems to pay to achieve full LSLR as it is essential to protecting the health of our public. Moreover, we urge full LSLR to be prioritized among our most vulnerable populations (eg, children, pregnant people, low-income communities and communities of color). Full LSLR not only protects health, it also makes financial sense- More than 350,000 children would be protected and $2.7 billion in future benefits would result if LSL are removed from homes of children born in 2018.[4] Cities and states across the U.S. have already begun to take action by creating policies to implement lead service line replacement.

Children spend a majority of their time at school or child care facilities and have potential to experience prolonged exposure to environmental health hazards present.[5] More than six million children under the age of five regularly attend child care outside the home.[6] Children under the age of six are most at risk due to their behaviors and development.[7] Low-income children are three times more likely than higher-income children to have elevated blood lead levels.[8] Additionally, black children are at higher risk for elevated blood lead levels than children of other races.[9] Infants are especially at risk if consuming formula with water containing lead due to the volume of water compared to their body size.[10,11] Lead exposure results in adverse health effects, such as cognitive impairment, behavioral problems, and hearing and speech problems.[12] Testing lead in water at all schools and licensed child care facilities served by CWSs falls short

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[4] Health Impact Project. (2017). *10 Policies to Prevent and Respond to Childhood Lead Exposure*. https://www.pewtrusts.org/-/media/assets/2017/08/hip_childhood_lead_poisoning_report.pdf

[5] American Public Health Association. (2019). *Protecting the Health of Children: A National Snapshot of Environmental Health Services.* https://www.apha.org/topics-and-issues/environmental-health/child-health

[6] Lead Service Line Replacement Collaborative. *Child Care Facilities and Schools.* https://www.lslr-collaborative.org/child-care-and-schools.html

[7] Centers for Disease Control and Prevention. (2019, July 30). *Childhood Lead Poisoning Prevention- At-Risk Populations.* https://www.cdc.gov/nceh/lead/prevention/populations.htm

[8] Aizer, A., Currie, J., Simon, P. & Vivier P. (2018). Do Low Levels of Blood Lead Reduce Children's Future Test Scores? *Am Econ J Appl Econ. 10*(1),307-341. https://doi.org/10.1257/app.20160404

[9] Health Impact Project. 10 Policies to Prevent and Respond to Childhood Lead Exposure. 2017. Retrieved from: https://www.pewtrusts.org/-/media/assets/2017/08/hip_childhood_lead_poisoning_report.pdf

[10] United States Environmental Protection Agency. *National Primary Drinking Water Regulations: Lead and Copper Rule Revisions.* https://www.regulations.gov/document?D=EPA-HQ-OW-2017-0300-0001

[11] Centers for Disease Control and Prevention. (2019, July 30). *Childhood Lead Poisoning Prevention- Lead in Drinking Water.* https://www.cdc.gov/nceh/lead/prevention/sources/water.htm

[12] Centers for Disease Control and Prevention. (2020, January 7). *Childhood Lead Poisoning Prevention- Lead in Drinking Water.* https://www.cdc.gov/nceh/lead/prevention/health-effects.htm

of protecting our most vulnerable. The revisions require targeted sampling and public education requirements but do not require fixing identified problems found through the testing. Additionally, the revised rule proposes testing for lead at a limited number of water outlets, rather than following EPA's own guidance in the *3Ts for Reducing Lead in Drinking Water Toolkit* of testing all outlets used for water consumption in order to not miss localized lead problems.[13] This approach misses a key opportunity to take action in protecting the health of our children. We urge EPA to reconsider this approach and require schools and child care facilities to address lead exposure if discovered through testing.

The revision calls for replacing 3 percent of the LSL in the distribution system on an annual basis if the water system surpasses the lead action level, yet this is a decrease from the 7 percent standard in the existing rule. This will cause a delay in LSLR, which may result in populations continuing to be exposed to lead on a longer-term basis.

No amount of lead is considered safe in the blood and even low levels of lead exposure affects IQ and academic achievement.[14] Currently, the lead trigger level of 10 µg/L is not a health-based standard. The Centers for Disease Control and Prevention's current blood lead reference value is 5 micrograms per deciliter, and with blood levels above that number, CDC recommends initiating action. The Food and Drug Administration's standard for bottled water is 5 ppb and the American Academy of Pediatrics calls for action among state and local governments have water fountains in schools that exceed 1 ppb.[15] The literature demonstrates the irreversible health impacts of lead exposure and the current trigger level does not take this into account. We urge EPA to set a health-based standard to protect our public's health.

Informing the public of the health effects to lead exposure is essential to raising awareness. We support the proposed revision to notify customers within 24 hours when elevated lead levels are found and providing education about the health effects of lead, sources, and actions both consumers and the CWSs can take**.** We urge EPA to recommend CWSs to work with local health departments on a consistent basis when informing the public of the notification for customers with a LSL and with unknown service line material. Health departments often serve as a resource and coordinator among communities and are looked upon as a trusted resource of public health information. We commend EPA for proposing annual outreach with state and local health agencies, however, we urge this outreach is conducted much more frequently to meet the public's need for health-based information. Implementation of the proposed revisions will require work across sectors- public health, housing, etc.- to do so efficiently. Additionally,

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[13] United States Environmental Protection Agency. (2019, October 30). *3Ts for Reducing Lead in Drinking Water Toolkit- Module 4: Developing a Sampling Plan.* https://www.epa.gov/sites/production/files/2018-09/documents/module_4_conducting_a_walkthrough_and_determining_sample_locations_508.pdf

[14]Centers for Disease Control and Prevention. (2019, July 30). *Childhood Lead Poisoning Prevention- Blood Lead Levels in Children.* https://www.cdc.gov/nceh/lead/prevention/blood-lead-levels.htm

[15] American Academy of Pediatrics Council on Environmental Health. (2016). Prevention of Childhood Lead Toxicity. *Pediatrics.138*(1). https://doi.org/10.1542/peds.2016-1493

increased funding is needed to implement these changes. We urge EPA to not only promote cross-sector collaboration but also to increase funds to successfully implement these changes in a timely manner.

The Lead and Copper Rule is vital to reducing exposure to lead in drinking water, and ultimately protecting the health of our most vulnerable. We appreciate the opportunity to comment on the proposed revision of the Lead and Copper Rule and believe the rule should be strengthened by incorporating our recommendation.

Sincerely,

Georges C. Benjamin, MD
Executive Director