Alliance of Nurses for Healthy Environments

Bringing Science and Passion to the Environmental Health Movement

February 5, 2024

Re: Comments to Lead and Copper Rule Improvements (Docket #: EPA-HQ-OW-2022-0801)

Please see the attached comments from the Alliance of Nurses for Healthy Environments (ANHE) endorsed by 24 nursing and health organizations.

ANA AMERICAN NURSES ASSOCIATION

NBNA NATIONAL BLACK NURSES ASSOCIATION, INC.

NASN National Association of School Nurses

National Association of Pediatric Nurse Practitioners℠

National Association of Neonatal Nurses

National Association of Neonatal Nurse Practitioners A division of NANN

SOLN SOCIETY OF LATINX NURSES

APHN

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SEIU

DNA DELAWARE NURSES ASSOCIATION

NAHN National Association of Hispanic Nurses

AMERICAN NURSES ASSOCIATION CALIFORNIA

National League for Nursing

MI NURSES Association Affiliate of National Nurses United and AFL-CIO

CA·NURSES FOR ENVIRONMENTAL HEALTH & JUSTICE

CLEANAIRNOW Climate & Environmental Justice

AAOHN

Alliance of Nurses for Healthy Environments

National Coalition of Ethnic Minority Nurse Associations NCEMNA

NPWH The National Association of NURSE PRACTITIONERS in WOMEN'S HEALTH

AMERICAN COLLEGE of NURSE-MIDWIVES

ONA OHIO NURSES ASSOCIATION

aft

Council of Public Health Nursing Organizations

January 16, 2024

The Honorable Michael S. Regan
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20004

Re: Comments to Lead and Copper Rule Improvements (Docket #: EPA-HQ-OW-2022-0801)

Dear Administrator Regan,

The undersigned national and state nursing organizations represent nurses and advanced practice nurses who serve patients and communities across America who rely on strong federal environmental safeguards. We thank EPA for acting to address public health concerns around lead in drinking water, and we strongly urge EPA to quickly finalize the Lead and Copper Rule (LCR) Improvements.

Nurses are crucial in creating policies and programs that prevent disease, solve environmental health problems, and reduce disease burdens.[1] There are over 5 million nurses in the U.S. We are on the frontlines and are present in almost every community across the US. Nurses spend the highest contact time with patients in all care settings and we are led by professional obligations[2] which make addressing health, environment, and safety, a core professional focus. While we as nurses often ask individual patients to take on extra measures to protect themselves, nurses are also asking EPA to continue to strengthen measures to reduce factors that can contribute to our health conditions in the first place. At the forefront of this issue is preventing exposure to toxic substances like lead.

There is no safe level of lead. Lead can affect almost every organ and system in the human body; even at very low levels lead can cause serious, irreversible damage to the developing brains and nervous systems of babies and young children. Lead is dangerous to adults too. Lead exposure in children contributes to potentially irreversible neurological impacts, with those exposed, especially children of color, facing life-long health impacts. Lead has also long been recognized to be a cause of hypertension[3] and a risk factor[4] for heart disease, stroke, and chronic kidney disease.

[1] ANHE. (2009). *Bringing science and passion to the environmental health movement: Wingspread Statement.*
[2] American Nurses Assoc. (2020). *Nursing: Scope and standards of practice (4th ed.)*. Standard 18: Env Health. Silver Spring, MD.
[3] Tsoi, M.F., Lo, C.W.H., Cheung, T.T. et al. (2021). Blood lead level and risk of hypertension in the United States National Health and Nutrition Examination Survey 1999–2016. *Scientific Reports, 11*, 3010. DOI:https://doi.org/10.1038/s41598-021-82435-6
[4] Landrigan, P.J. (2018). Lead and the heart: an ancient metal's contribution to modern disease. *The Lancet, 3*(4), E156-E157. DOI:https://doi.org/10.1016/S2468-2667(18)30043-4

Access to safe drinking water is essential for families to live healthy and productive lives. Yet, in states across the nation, children, especially children of color, are exposed to lead and other toxic chemicals in their tap water at home and at school because of lead service lines. Lead pipes exist in every single state[5] in our country, and millions[6] are drinking contaminated water from their kitchen taps. This isn't a problem we can forget about, it's one that impacts community health directly.

We appreciate the Biden administration's top priority of replacing all lead service lines in the next ten years. EPA's proposed essential improvements to the Lead and Copper Rule (LCR) are a step in the right direction for promoting public health for communities across the country. However, the proposed rule falls short. As the science is clear that there are no safe levels of lead in water, we strongly support the following measures to strengthen this proposal:

Prioritizing Health Based Standards

The current proposed action level of 10 ppb is not a health based standard. While lowering the action level from 15 ppb to 10 ppb is an improvement, this lowered level remains inadequate and still leaves many communities and children unprotected. The current level of 15 ppb is the Lead Action Level set by the 1991 Lead and Copper Rule and this standard is also not based on health. EPA itself, notes that this proposed action level is not a health-based level[7]. EPA[8] has set the maximum contaminant level goal (MCLG) for lead in drinking water at 0 (zero) ppb as lead is a toxic metal that can be harmful to human health even at very low exposure levels. Lead is persistent, and it can bioaccumulate in the body over time. The American Academy of Pediatrics (AAP) recommends that state and local governments take steps to ensure that water fountains in schools do not exceed water lead concentrations of 1 ppb (AAP, 2016)[9]. We strongly support this recommendation from AAP and recommend EPA establish a maximum contaminant level (or at a minimum an action level) for lead in drinking water to 1 ppb as a health based standard.

Schools and Childcare Centers

There are portions of the rule specifically addressing schools and childcare facilities that show no signs of improvement. According to EPA,[10] young children, infants, and fetuses are particularly vulnerable to lead, with low levels of exposure having a more dramatic impact on children than adults. In children, low levels of exposure have been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells.[11] EPA recently estimated[12] that formula-fed babies get up to 40 to 60 percent[13] of their lead exposure from drinking water.

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[5] Olson, E.D. & Stubblefield, A. (2021, July 8). Lead pipes are widespread and used in every state. *Natural Resources Defense Council (NRDC).*
[6] Fedinick, K.P. (2021, May 13). Millions served by water systems detecting lead. *Natural Resources Defense Council (NRDC).*
[7] Federal Register. National primary drinking water regulations for lead and copper: Improvements (LCRI). A proposed rule by the Environmental Protection Agency on 12/06/2023.
[8] Environmental Protection Agency (EPA). (Last updated Jan 5, 2024). *Ground water and drinking water: Basic information about lead in drinking water.*
[9] American Academy of Pediatrics (AAP). (July 1, 2016). Prevention of childhood lead toxicity. *Pediatrics, 138*,(1): e20161493. https://doi.org/10.1542/peds.2016-1493
[10] Environmental Protection Agency (EPA). (Last updated Jan 5, 2024). *Ground water and drinking water: Basic information about lead in drinking water.*
[11] Environmental Protection Agency (EPA). (January 27, 2023). EPA launches new initiative to accelerate lead pipe replacement to protect underserved communities.
[12] Environmental Protection Agency (EPA). (Last updated Jan 5, 2024). *Ground water and drinking water: Basic information about lead in drinking water.*
[13] Federal Register. (1991). Environmental Protection Agency 40 CFR Parts 141 and 142. Maximum contaminant level goals and National primary drinking water regulations for lead and copper; Final rule.

Lead can decrease a child's cognitive capacity, cause behavioral problems, and limit their ability to concentrate—all of which affect their learning potential in school.[14] Lead is toxic at low levels and especially damaging to children— impairing how they learn, grow and behave. Most schools are likely to have lead in their plumbing and/or fixtures, and lead contamination of schools' drinking water is widespread.

Therefore, we ask EPA to set a health based regulation of 1 ppb maximum contaminant level (or at a minimum, an action level) for lead in water at schools and childcare centers. Funds have been provided to states without requirements, such as filter first or requirements for 1 ppb for schools and child care centers, which makes it essential that the LCR emphasize this as a requirement. Further, the LCR should require full replacement of lead service lines at schools as soon as possible. We additionally recommend that lead-bearing fixtures and plumbing be replaced - especially where filters cannot be mounted at the point water leaves the tap since the vast majority of school drinking fixtures are not tested for lead on a regular basis.[15] Only 8% of U.S. schools operate their own water systems, such as on site wells, and until 2021, were the only schools mandated to regularly test water lead levels in a sample of school fixtures.[16] The other 92% of U.S. schools rely on community water systems serving the public and it wasn't until 2021 that a revision to the LCR required water testing at 20% of elementary schools and daycares per year; however the vast majority of school drinking fixtures are still not tested for lead on a regular basis.[17]

We recommend the installation and maintenance of point of use filters certified to remove lead on all taps used for drinking water, cooking or beverage preparation in schools and childcare centers. A number of school districts have already embraced a "filter first" approach - from Portland to the District of Columbia. This short-term, low-cost intervention is critical. Michigan became the first state to implement a filter first approach in schools in October 2023.

Lead Service Line Replacement (LSLR)

There are components of EPA's proposed rule that could exacerbate health disparities - especially for lower-income communities and communities with aging infrastructure. The EPA must finalize stronger Lead and Copper Rule Improvements which will replace all lead service lines within 10 years and require utilities to cover the full cost. The proposal does not require water systems to pay the full costs of removing the entire lead service line. While EPA claims it does not have the legal authority to require this, legal experts disagree and argue for water utilities to be responsible for the cost of replacing the entire lead service line (as is required in the State of Michigan), not the impacted community members dealing with lead-contaminated drinking water. Studies have shown, and even EPA has recognized, that allowing water systems to charge individual homeowners for replacement of lead pipes under their property leads to fewer replacements of lead service lines for non-white and low-income homeowners and renters.

It is critical that all lead service lines are replaced within ten years. However, the proposal allows some water systems, like Chicago, to get extensions well beyond 10 years to replace their lead pipes – in fact, possibly

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[14] Bell, C. (December 12, 2023). Lead and copper rule school report card: No sign of improvement. *Natural Resources Defense Council. (NRDC)*.

[15] McNamara, R., Estes-Smargiassi,S., Masters, S.V., Roberson, A., Tobiason, J.E., Beighley, R.E. & Pieper, K.J. (2022). Using the lead and copper rule revisions five-sample approach to identify schools with increased lead in drinking water risks. *Environmental Science & Technology Letters, 9*(1), 84-89.

[16] Cradock, A.L., Jones, S.E. & Merlo, C. (2019). Examining differences in the implementation of school water-quality practices and water-access policies by school demographic characteristics. *Preventive Medicine Reports, 14*, 100823. DOI: https://doi.org/10.1016/j.pmedr.2019.100823

[17] McNamara et al. in Latham, S. & Jennings, J.L. (2022). Elevated water lead levels in schools using water from on-site wells. *Journal of Water and Health, 20*(9): 1425–1435. DOI: https://doi.org/10.2166/wh.2022.141

from 40-50 years. This is unacceptable and leaves many communities at risk. Utilities should also be required to conduct water lead testing after lead service line (LSL) replacement, using testing techniques that most accurately gauge the risk of lead in drinking water.

The LSL replacement process can increase lead levels because the construction activity itself may dislodge more lead from lead service lines. We recommend the importance of the municipality/water system in providing certified filters to deliver safe drinking water within residences or provide an alternative water source, including (1) water buffaloes (large tanks that have multiple taps for residents to fill containers) and/or (2) bottled water during LSL construction processes.

While plastic is cheaper, there are significant questions about plastic pipes including whether they will leach chemicals, whether they will allow permeation of toxic chemicals into the water from contaminated groundwater, and how long they will last. Plastic pipes also are vulnerable to melting and contamination of the distribution system with toxic chemicals in the event of fires. The Healthy Building Network recommends using copper pipes without solder, fluxes or other filler metals[18] for lead service line replacement. The International Association of Fire Fighters and United Association (plumbers & pipefitters union) have raised major concerns with plastic pipes including emission of toxic gasses in fires, leaching of chemicals into drinking water, and off-gassing of chemicals during construction posing health risks to workers.

Communities across the country should be protected from exposure to lead. We thank the EPA for taking action to reduce health harms from lead exposure. We strongly urge EPA to quickly finalize the most thorough Lead and Copper Rule (LCR) Improvements as soon as possible and finalize a rule that prioritizes replacing all lead service lines within 10 years with utilities covering the full cost of replacement. In this laudable effort to remove lead from drinking water, it is critical that health remains the priority.

Sincerely,

Alliance of Nurses for Healthy Environments (ANHE)

American Association of Occupational Health Nurses (AAOHN)

American Federation of Teachers (AFT)

American Nurses Association (ANA)

American Nurses Association\California

American College of Nurse-Midwives

Association of Community Health Nursing Educators (ACHNE)

Association of Public Health Nurses (APHN)

California Nurses for Environmental Health & Justice (CNEHJ)

Clean Air Now

[18] Healthy Building Network. (Last updated April 25, 2023). Potable water piping product guidance.

Council of Public Health Nursing Organizations (CPHNO)

Delaware Nurses Association

Michigan Nurses Association

National Association of Hispanic Nurses (NAHN)

National Association of Neonatal Nurses

National Association of Nurse Practitioners in Women's Health (NPWH)

National Association of Pediatric Nurse Practitioners

National Association of School Nurses

National Black Nurses Association, Inc

National Coalition of Ethnic Minority Nurse Associations

National League for Nursing

New Hampshire Nurses Association Commission on Planetary Health

Ohio Nurses Association

SEIU

Society of Latinx Nurses