

November 1, 2021

*Via e-mail*

Office of Children's Health Protection  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. NW Washington,  
D.C. 20460  
[epa\\_chpac@icfi.com](mailto:epa_chpac@icfi.com)

Dear Members of the Children's Health Protection Advisory Committee,

The undersigned organizations submit these comments on behalf of our millions of members and activists concerned about children's environmental health. We urge you to immediately recommend that EPA: (1) make fundamental necessary changes to the Lead and Copper Rule ("LCR" or the "Rule"), which regulates lead in drinking water; and (2) not allow the previous administration's deeply problematic LCR revisions (the "Revisions"), which the Biden Administration put on hold, to go into effect. The LCR has failed children in communities around this country for decades. The Rule is not health-based and ignores science. It is fundamentally broken.

EPA has stated that it will determine whether to allow the Revisions to go in effect, or how to further amend the Rule, no later than December 16, 2021. EPA also noted just last week in its draft "EPA Strategy To Reduce Lead Exposure and Disparities in U.S. Communities" that it will seek advice from CHPAC to improve its efforts to protect children from exposure to lead.<sup>1</sup> Given the immediacy of EPA's timeline, we urge you to advise EPA to dramatically change its approach to reducing lead exposure from drinking water by using the best available science—something it claims in its draft strategy plan that it is committed to doing.

**Lead exposure continues to harm children nationwide and the Lead and Copper Rule fails to meaningfully address exposure through drinking water**

As you are aware, lead is a powerful neurotoxin that is especially dangerous for fetuses, infants, and children.<sup>2</sup> Lead exposure causes lower cognitive function, learning disabilities, and behavioral issues.<sup>3</sup> There is no known safe level of lead exposure.<sup>4</sup> Lead contamination continues to threaten children's health across the country. A recent nationwide study revealed that approximately 50 percent of

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<sup>1</sup> See U.S. Env'tl Prot. Agency (EPA), *Draft EPA Strategy to Reduce Lead Exposures and Disparities in U.S. Communities* 23 (2021), [https://www.epa.gov/system/files/documents/2021-10/public-comment-draft-epa-lead-strategy\\_oct-28\\_2021.pdf](https://www.epa.gov/system/files/documents/2021-10/public-comment-draft-epa-lead-strategy_oct-28_2021.pdf).

<sup>2</sup> See, e.g., Rodica Nicolescu et al., *Environmental Exposure to Lead, But Not Other Neurotoxic Metals, Relates to Core Elements of ADHD in Romanian Children*, 110 *Env'tl. Res.* 476 (2010); Bruce P. Lanphear et al., *Cognitive Deficits Associated with Blood Lead Concentrations*, 115 *Pub. Health Reps.* 521 (2000).

<sup>3</sup> See, e.g., WHO, *Lead Poisoning and Health*, <https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health> (last updated Oct. 11, 2021); Council on Environmental Health, *Prevention of Childhood Lead Toxicity*, 138 *Am. Acad. Pediatrics* (2016), <https://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/With-No-Amount-of-Lead-Exposure-Safe-for-Children,-American-Academy-of-Pediatrics-Calls-For-Stricter-Regulations.aspx>.

<sup>4</sup> See Lauren Rosenthal & Will Craft, *Am. Pub. Media*, *Buried Lead*, (May 4, 2020), <https://www.apmreports.org/story/2020/05/04/epa-lead-pipes-drinking-water> (finding that according to EPA's own analysis, its action level—the limit on how much lead can be in the water supply before certain LCR provision trigger—would need to be lowered by 70 percent from its current level of 10 ppb to prevent lead poisoning among children).

children under six years old may have detectable levels of lead in their blood, and concluded that half a million children in the U.S. have levels of lead in their blood high enough to qualify as elevated (5 micrograms per deciliter (ug/dL) of blood.<sup>5</sup> The study indicated that children that live in pre- 1950's housing and Black neighborhoods had, on average, higher blood lead levels than other group.<sup>6</sup> Importantly, the Centers for Disease Control and Prevention (CDC) just last week reduced their reference level for determining elevated levels from 5 ug/dL to 3.5. ug/dL;<sup>7</sup> as new data becomes available, the evidence of harm to children at ever-lower levels of lead exposure mounts.<sup>8</sup>

Drinking water is a source of lead exposure for almost all people. Lead leaches into drinking water through lead service lines and other lead-bearing plumbing, such as solder and brass. Studies indicate that formula-fed infants under six months old receive the majority of their lead exposure through drinking water,<sup>9</sup> and infants under one year old face the highest risks for waterborne lead exposure of any family member within the same home.<sup>10</sup>

But the LCR cannot be counted on to reduce the alarming statistics above. The LCR is not health-based, nor focused on individual homes, and is broken. It has failed for the past 30 years to meaningfully prevent exposure to lead in drinking water for millions of people for the reasons outlined below. And the recent Revisions to the Rule did not cure its fundamental flaws and continued to disregard the relevant science. It is therefore imperative that EPA change its approach to reducing exposure to lead in drinking water. Proactive measures are necessary to protect the next generations of children.

### **The current LCR is ineffective in preventing harm from lead exposure**

#### **a. The LCR's testing paradigm disregards the implicit variability in waterborne lead.**

The LCR's paradigm for determining when corrective action must be taken is scientifically unsound. Lead levels in samples collected from the exact same tap may vary exponentially from one day to the next.<sup>11</sup> Yet the LCR uses one-time lead samples from one outlet in a tiny number of homes—in many cases only once every three years—to conclude that the water is “safe” in that home and thousands or millions of other homes in a water system, despite the likelihood that such limited testing misses lead problems. And then the LCR permits a water system to avoid taking any corrective action based on that “safety” conclusion, an approach equally scientifically flawed. Thus, at its root, the LCR is

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<sup>5</sup> See Marissa Hauptman, MD, MPH et al., *Individual- and Community-Level Factors Associated with Detectable and Elevated Blood Lead Levels in US Children: Results From a National Clinical Laboratory*, JAMA Pediatrics 3 (2021).

<sup>6</sup> See *id.*

<sup>7</sup> CDC, CDC Updates Blood Lead Reference Value for Children, <https://www.cdc.gov/media/releases/2021/p1028-blood-lead.html>.

<sup>8</sup> CDC Advisory Committee on Childhood Lead Poisoning Prevention, Recommendations of the Advisory Committee for Childhood Lead Poisoning Prevention (ACCLPP), *Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention* (2012), [https://www.cdc.gov/nceh/lead/docs/final\\_document\\_030712.pdf](https://www.cdc.gov/nceh/lead/docs/final_document_030712.pdf).

<sup>9</sup> See Valerie Zartarian et al., *Children's Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-Making*, 125 Env'tl Health Perspectives 9 (2017), <https://ehp.niehs.nih.gov/doi/pdf/10.1289/EHP1605>.

<sup>10</sup> See Jane Houlihan, Healthy Babies Bright Futures, *Lead in Drinking Water & Your New Baby* 1 (2020), [https://www.hbbf.org/sites/default/files/documents/2020-10/HBBF\\_LeadInWater\\_Report\\_R4\\_0.pdf](https://www.hbbf.org/sites/default/files/documents/2020-10/HBBF_LeadInWater_Report_R4_0.pdf).

<sup>11</sup> See Sheldon Masters et al., *Inherent Variability in Lead and Copper Collected During Standardized Sampling*, 188 Env'tl Monitoring Assessment 177 (2016) (finding that, in a 2016 study, the average variability of lead levels at one outlet ranged from 20 to 80 percent). Many factors may affect the variability of lead level samples from the same tap, including the type and age of plumbing materials, chemical and biological changes throughout the distribution system, water main corrosion, naturally occurring biological and geological processes, and varying water use patterns. *Id.*

not designed to, and will not, identify many homes with high lead levels.

**b. The LCR requires corrective action only when lead levels far above those known to cause detrimental health effects for children are reached.**

Public health experts identify replacing lead service lines as the most important effort that can be undertaken to reduce lead levels in drinking water.<sup>12</sup> Yet the LCR requires lead service line replacement only once ten percent of sampled homes (“90th percentile”) have tested with lead levels above the non-health-based “action level” of 15 parts per billion.<sup>13</sup> (This is known as a “lead action level exceedance.”) EPA has not revised the 15 ppb action level in the past 30 years, even though there is no safe level of lead. EPA itself has estimated that to prevent the blood lead level of thousands of children under age 7 from exceeding CDC’s previous 5 ug/dL “reference value” (elevated childhood blood lead level), their drinking water would have to be limited to 5 ppb each day, on average, to account for the totality of their exposures from multiple media (aggregate exposure).<sup>14</sup> Children ages 2 to less than 6 years old would have to have the lead in their water limited to 3 ppb.<sup>15</sup> The EPA analysis also found that for 2.5 percent of children from 1 to 7 years of age, blood lead levels will not be below the new CDC reference (3.5 ug/dL) even if they have no lead (0 ppb) in water, due to aggregate exposure from all sources. In other words, there is no margin of safety and any lead exposure from tap water is expected to put thousands of children under 7 above the CDC reference level. Even bottled water is not permitted to contain lead at levels greater than 5 ppb.<sup>16</sup>

***We urge you to ask EPA to require corrective action for all water systems at no higher than 5 ppb, using rigorous and comprehensive monitoring provisions designed to detect high lead levels.*** Sixty-one million people in the country are served by water systems with 90<sup>th</sup> percentile lead levels above 5 ppb lead (and 186 million with 90<sup>th</sup> percentile lead levels above 1 ppb lead).<sup>17</sup>

Further, limiting health-protective action until at least ten percent of homes test positive for lead above the action level callously disregards the detrimental health impacts that high lead levels in

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<sup>12</sup> See Pew Charitable Trust, *10 Policies to Prevent and Respond to Childhood Lead Exposure* (Aug. 30, 2017), <https://www.pewtrusts.org/en/research-and-analysis/reports/2017/08/10-policies-to-prevent-and-respond-to-childhood-lead-exposure>.

<sup>13</sup> See 86 Fed. Reg. 4,198-01, 4,201. The LCR revisions did introduce a new “trigger” level at 10 ppb, but exceeding the trigger level requires only corrosion control re-optimization and, for some utilities, setting goals for lead service line replacement, but does not require lead service line replacement on a set timeline. *Id.* Additionally, even though EPA acknowledges there is no safe level of lead in drinking water, the new LCR maintained the misleading and non-health protective “lead action level” of 15 ppb. See EPA, Off. of Water, Lead and Copper Rule Revisions White Paper 11 (2016), [https://www.epa.gov/sites/production/files/2016-10/documents/508\\_LCR\\_revisions\\_white\\_paper\\_final\\_10.26.16.pdf](https://www.epa.gov/sites/production/files/2016-10/documents/508_LCR_revisions_white_paper_final_10.26.16.pdf).

<sup>14</sup> EPA Off. Res. & Dev., *EPA Tools and Resources Webinar: Multi-Media Modeling of Children’s Lead Exposure* (2018), [https://www.epa.gov/sites/default/files/2018-10/documents/multimedia\\_pb\\_slides.pdf](https://www.epa.gov/sites/default/files/2018-10/documents/multimedia_pb_slides.pdf) (citing Valerie Zartarian et al., *supra* note 9). The CDC reference value of 5 micrograms of lead per deciliter (ug/dL) in blood was established in 2012 and has not been updated since, even though the data clearly indicate that it should be lowered to about 3 ug/dL. See *Blood Level Reference*, CDC, <https://www.cdc.gov/nceh/lead/data/blood-lead-reference-value.htm#:~:text=In%202012%2C%20CDC%20updated%20its%20higher%20than%20most%20children's%20levels> (last updated Oct. 27, 2021) (“The Federal Advisory Committee . . . unanimously voted on May 14, 2021 in favor of recommending that CDC update the reference value to 3.5 ug/dL based on these . . . data.”). Of course, even that level is not “safe,” since there is no safe level of lead exposure.

<sup>15</sup> *Id.*

<sup>16</sup> See 21 C.F.R. §§ 165.110(a), (b)(4)(iii)(A).

<sup>17</sup> See Kristi P. Fedinick, *Millions Served by Water Systems Detecting Lead: Explore Lead-Related Drinking Water Issues Across America*, NRDC (May 13, 2021), <https://www.nrdc.org/resources/millions-served-water-systems-detecting-lead>.

individual homes could have on children in any home.

Recent events in Clarksburg, West Virginia show how ineffective the LCR is in preventing dangerous levels of lead in drinking water from harming children. EPA recently concluded that there was an imminent and substantial endangerment to health of an entire water system in Clarksburg, West Virginia based on lead levels in water tested at three homes.<sup>18</sup> One such test measured lead levels at 8,940 ppb.<sup>19</sup> But these dangerously high lead levels in drinking water were uncovered not because of the LCR, but only because Childhood Lead Assessments found elevated blood lead levels in the children of these residences that eventually resulted in testing the water for lead.<sup>20</sup>

**c. Recent LCR Revisions would slow down lead service line replacement, but it should be ramped up and done equitably across all communities.**

The revised LCR took significant steps backwards by reducing the rate at which lead service lines must be replaced, from 7 percent annually to 3 percent annually once a water system is compelled into mandatory replacement by a lead action level exceedance. The Revisions extend the time period from the previous rule's 14 years to 33 years that a water system that is continuously exceeding the 15 ppb Action Level may take to fully remove its lead service lines.<sup>21</sup> The decrease in the rate of lead service line replacement leaves children, especially those living in environmental justice communities, vulnerable for years to come. Low-wealth children and children of color are disproportionately exposed to lead.<sup>22</sup> This statistic is exacerbated by the failure of EPA to require equitable lead service line replacement. EPA has allowed water utilities to require consumers to pay for the portions of lead service line replacement on their property, resulting in greater lead service line replacement in more affluent, white neighborhoods than low-wealth communities and communities of color.<sup>23</sup>

The recent LCR Revisions also will permit small water utilities, which comprise 92 percent of regulated water utilities, to avoid replacing lead service lines altogether in many circumstances. Under the old LCR, all water systems were required to replace lead service lines and engage in corrosion control if they were continually exceeding the lead action level, although due to loopholes and poor enforcement, most water systems avoided replacing their lead service lines. Under the Revisions, small water systems are able to pick and choose which actions to take after a lead action level exceedance. Consider, for example, Benton Harbor, Michigan, a majority Black community that has been struggling with excessive lead in its water for over three years.<sup>24</sup> Their lead levels exceed 22 ppb—well over the 15 ppb federal lead action level.<sup>25</sup> Benton Harbor is considered a small system. While Benton Harbor failed to implement adequate measures to protect its citizens from lead exposure, it was required to take certain actions to

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<sup>18</sup> *In re Clarksburg Water Board*, CWA-03-2021-0110DS (EPA Region III, July 14, 2021).

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> See 84 Fed. Reg. 61,684-01, 61,767.

<sup>22</sup> See Prabjit Barn & Tom Kosatsky, *Lead in School Drinking Water: Canada Can and Should Address This Important Ongoing Exposure Source*, 102 Can. J. Pub. Health 118, 119 (2011); 84 Fed. Reg. 61,706; Hauptman et al., *supra* note 6, at 1 (explaining that Environmental Justice communities include “immigrant children, low-income families, and . . . racial and ethnic minorities”).

<sup>23</sup> See Rachel Ramirez, *Report: Utilities Are Less Likely to Replace Lead Pipes in Low-Income Communities of Color*, Grist (Mar. 12, 2020), <https://grist.org/justice/report-utilities-are-less-likely-to-replace-lead-pipes-in-low-income-communities-of-color/>; Kristi Pullen Fedinick et al., Nat. Res. Def. Council, *Watered Down Justice* 26 (2019), <https://www.nrdc.org/sites/default/files/watered-down-justice-report.pdf>.

<sup>24</sup> See Eric Lutz & Erin McCormick, *A Black Town's Water is More Poisoned Than Flint's. In a White Town Nearby, It's Clean*, *Guardian* (Sept. 21, 2021), <https://www.theguardian.com/us-news/2021/sep/21/benton-harbor-michigan-lead-water-poisoned>.

<sup>25</sup> See *id.*

reduce lead exposure and to begin replacing lead service lines under the old (current) LCR. A lack of effective enforcement of the LCR enabled the Benton Harbor system to continue exceeding the action level for over 3 years without an effective response.<sup>26</sup> But if the Revisions were in effect, Benton Harbor could pick corrective actions to take and likely could legally avoid any lead service line replacement.<sup>27</sup>

President Biden has proposed to replace “100 percent of all lead service lines” due to the threat to public health, and especially to environmental justice communities. Congress is poised to put billions of dollars into the Bipartisan Infrastructure legislation and the Build Back Better Act to pay for lead service line replacement to help implement this vision. We urge you to ask EPA to put this vision into action in the LCR.

EPA must take steps forward and speed up actions that will protect children in all communities, not loosen rules and allow some communities to forego protection of their residents. ***We urge you to recommend that EPA require proactive and equitable replacement of all lead service lines on a mandatory schedule to be completed in no more than 10 years*** to reduce adverse impacts on human health.<sup>28</sup>

**d. The LCR failed to meaningfully address lead in drinking water at schools and childcare centers.**

Schools and childcare centers are of particular concern for lead exposure. Children spend on average over six hours per day at school, not including time spent by children who attend before and after school care or activities.<sup>29</sup> Schools and childcare centers also present a unique set of circumstances that may increase lead exposure from drinking water to children. This is due to increased contact time between the lead pipes and the water—such as during summer breaks, the smaller size of the leaded pipes in drinking fountains—increasing contact between water and the pipes, and the large amount of leaded soldered joints in drinking fountains as opposed to other fixtures.<sup>30</sup> In New York State, 83 percent of school buildings tested for lead had at least one outlet that tested above 15 ppb.<sup>31</sup>

The recent LCR Revisions recognize that children are exposed to lead from drinking water in school and childcare centers. Yet, they create a largely voluntary and illusory testing regime that is so limited that it will overlook many lead contamination problems and thus will cause false reassurances in many communities that lead is not a problem in their schools, even when it is. The Revisions also do not require notification of parents and staff and generally do not require any remediation where high lead levels are detected in schools.

Because of the unique problems schools pose, and the concomitant risks to children, ***we urge you to recommend that EPA should create strong incentives for water systems to help schools and childcare***

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<sup>26</sup> See *Petition for Emergency Action Under the Safe Drinking Water Act*, 42 U.S.C. § 300i and 42 U.S.C. § 300j-1(b), to Abate the Imminent and Substantial Endangerment to Benton Harbor, Michigan Residents from Lead Contamination in Drinking Water, Submitted on Behalf of Petitioners Benton Harbor Community Water Council et al. to EPA 3–10 (Sept. 29, 2021), <https://www.nrdc.org/sites/default/files/benton-harbor-sdwa-petition-20210909.pdf>.

<sup>27</sup> See *id.*

<sup>28</sup> See 42 U.S.C. § 300g-1(b)(7)(A).

<sup>29</sup> See 86 Fed. Reg. 4,231.

<sup>30</sup> See Prabjit Barn & Tom Kosatsky, *supra* note 22 at 119; 84 Fed. Reg. 61,706.

<sup>31</sup> *Water Safety: 2017 NYC DOE Water Test Results*, N.Y.C. Dep’t of Educ., (2017), <https://www.schools.nyc.gov/about-us/reports/water-safety>.

*centers install certified point of use filters, with frequent and comprehensive mandatory testing of all water outlets as an alternative.*

- e. **Public education about lead in drinking water is ineffective at best, and inaccurate and misleading at worst.**

EPA does not ensure that the public truly understands the prevalence or the impacts of lead in drinking water. And utility publications and local officials often mislead residents with false assurances about the safety of water, with no intervention by EPA officials. Indeed, many residents in locations that were experiencing lead-in-drinking-water crises such as Flint, MI, Benton Harbor, MI, and Newark, NJ were not even aware that they should not drink the water until media outlets called attention to the issue. *We urge this committee to press EPA to, at the very least, engage in comprehensive and effective communication about the dangers of lead, the prevalence of lead in drinking water, and steps that can be taken to reduce exposure so that families can take appropriate actions to protect their children.*

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The LCR has been ineffective at protecting children's health for years and the recent revisions to the LCR do not make the changes necessary to rectify this problem. Indeed, in many instances, the Revisions make it worse. *We urge you, at this critical time, to recommend to EPA that it move beyond tweaking the LCR, but instead make significant changes to help better protect children from lead exposure.*

### **Summary of Recommendations**

We recommend that CHPAC ask EPA to overhaul the LCR to:

1. Require corrective action for all water systems at no higher than 5 ppb, based upon rigorous revised monitoring requirements designed to detect high lead levels.
2. Require proactive and equitable replacement of all lead service lines on a mandatory schedule to be completed in no more than 10 years.
3. Create strong incentives for water systems to help schools and childcare centers install certified point of use filters for lead removal, with frequent and comprehensive mandatory testing of all water outlets as an alternative.
4. Engage in comprehensive and effective communication about the dangers of lead, the prevalence of lead in drinking water, and steps that can be taken to reduce exposure so that families can take appropriate actions to protect their children.

Respectfully Submitted,

Suzanne Novak  
Senior Attorney, Earthjustice

#NoAmerenShutoffs

Ashurst Bar Smith Community

Campaign for Lead Free Water

Moms for a Non-Toxic New York

Natural Resources Defense Council (NRDC)

Newark Education Workers (NEW) Caucus

Citizens for Clean Water Sycamore Illinois	New York League of Conservation Voters
Clean Water for North Carolina	Newark Water Coalition
Coalition on Lead Emergency	Newburgh Clean Water Project
Conservation Voters of PA	Pennsylvania Council of Churches
Earth Action, Inc.	Portland Advocates for Lead-free Drinking Water
Environmental Transformation Movement of Flint	Shelby County Lead Prevention & Sustainability Commission
First Wednesdays San Leandro	Sierra Club
Food & Water Watch	The Alliance for the Great Lakes
For Love of Water (FLOW)	The Water Collaborative of Greater New Orleans
Great Neck Breast Cancer Coalition	United Parents Against Lead
Green & Healthy Homes Initiative	Water You Fighting For?
Highland Park Human Rights Coalition	Waterspirit
Illinois Environmental Council	Waterway Advocates
Little Village Environmental Justice Organization	WE ACT for Environmental Justice
Merrimack Citizens for Clean Water	Your Turnout Gear and PFOA
Midwest Environmental Advocates, Inc.	Zero Waste Washington