February 18, 2019


Thank you for the opportunity to comment on EPA’s proposed revisions to the Lead and Copper Rule (LCR). These comments are submitted on behalf of Clean Wisconsin and our members and supporters statewide.

The existing legal framework for responding to the public health crisis posed by lead in drinking water is woefully insufficient. The LCR has not been updated in almost 30 years, despite being criticized since its inception as inadequate to protect public health. Bold action to fix this broken rule is long past due. Unfortunately, while the proposed revisions do contain some improvements to the LCR, the revisions are simply not commensurate to the scale of the problem we face.

In Wisconsin 5% of kids have tested positive for lead poisoning, higher than the national average. Lead poisoning causes serious harm to the brains and nervous systems of children, even at very low levels, and causes serious health effects for adults. Indeed, it is uncontroversial that there is no safe level of lead in drinking water.

The primary source of lead in drinking water is lead service lines (LSLs), which release lead into water on the way to the tap. The Wisconsin Department of Natural Resources estimates that there are over 200,000 lead service lines (LSLs) remaining in communities across Wisconsin. Until these LSLs are taken out of the ground and replaced with safe plumbing materials, Wisconsin residents will be at risk of lead poisoning.

Despite this stark reality, the proposed revisions fail to either set stronger numeric limits for lead in drinking water that would require lead service line replacement (LSLR) or to require proactive lead service line replacement. Absent mechanisms that require LSLs to be removed as soon as possible, the proposed revisions will only guarantee that future generations are needlessly exposed to the risk of lead poisoning. This outcome is especially tragic and unacceptable because these harms have fallen, and will continue to fall, disproportionately on some of the most vulnerable and disadvantaged members of our society.
I. The Lead and Copper Rule Must Set Stronger Numeric Limits on Lead in Drinking Water.

EPA could revise existing lead concentration limits in the LCR in several different ways to better protect public health. EPA could set a new, health-based standard, lower the existing treatment technique-based Action Level (AL), or untether critical remedial actions like LSLR from lead concentration level exceedances altogether. Unfortunately, the proposed revisions take none of these paths and instead largely leave an insufficient, 30-year-old standard in place.

a. EPA Should Set a Health-Based Standard.

EPA should set a health-based standard in the form of an enforceable maximum contaminant level (MCL). Currently, the LCR does not contain a health-based standard and EPA instead relies on a treatment technique-based limit, the Action Level (AL), to implement the LCR.

EPA could calculate an MCL for lead in drinking water based on the level at which the most vulnerable would suffer the effects of lead poisoning—infants consuming formula made with tap water. EPA has been exploring using infant blood lead levels to calculate numeric limits on lead in drinking water.\(^1\) This is a feasible option, as demonstrated by Canada’s decision to set a numeric limit for lead in drinking water of 5 ppb based in part on this method.\(^2\) Further, EPA utilized this methodology to help quantify the benefits of the proposed rule. 84 Fed. Reg. 61726 (applying Integrated Exposure Uptake and Biokinetic Model).

We do understand that there are legitimate scientific challenges involved in calculating an MCL. We also understand that because the MCLG has been set at zero, reflecting the fact that there is no safe level of lead, the SDWA requires an MCL to be set at a level as close to zero as technically feasible. See 42 U.S.C. § 300g-1(b)(4)(b). These challenges, however, do not justify failing to set an MCL for lead in drinking water. Rather, they point out how destructive even low levels of lead truly are, and the importance of setting a standard that makes this clear to the public.

Even if EPA does not set a health-based standard in the form of an enforceable MCL, it would still be worth setting a health-based standard as an additional tool

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to protect the homes and individuals most vulnerable to lead contaminated water.

EPA has previously acknowledged that the current reliance on a treatment technique standard has led to a great deal of confusion about how specific lead levels threaten health and that the public would benefit from greater clarity on this point. Given this, even if EPA is unwilling to set an enforceable MCL for lead, it should calculate a health-based standard to communicate how lead in drinking water affects the most vulnerable. Exceedances of this standard in consumer tap water samples could trigger immediate notification from the water system and coordination with public health agencies about steps that can be taken to reduce lead exposure. A stated goal of the proposed LCR revisions is to improve public education and notice requirements, and it would prove valuable to connect targeted outreach with exceedances of not just an AL or “Trigger Level,” but of a level of lead that is actually based on health-effects. This sort of health-based standard is not a substitute for setting an MCL, but it would at least create some much-needed transparency and clarity about the acute problems caused by exposure to even low levels of lead.

b. EPA Should Lower the Action Level.

If EPA is unwilling to set a health-based standard for lead in drinking water, it must lower the AL from 15 parts per billion. Leaving the AL at 15 ppb would needlessly allow lead contamination problems to persist.

The AL is based on EPA’s 1991 assessment that when 90% of tap water samples collected during monitoring are below 15 ppb, the water system’s corrosion control technology can be deemed effective. In other words, this standard is EPA’s 30-year-old assessment of when a water system’s treatment techniques are adequate. EPA has not adequately justified failing to update this nearly 30-year-old technology based standard. No demonstration has been made that lower lead levels are not feasible with currently available technology and practices. Since 1991 our understanding of best corrosion control practices has improved significantly, and the AL should be revised to reflect this.

Allowing water systems to continue furnishing water with 90th percentile lead levels approaching 15 ppb without requiring them to take any meaningful remedial action is also inconsistent with what we know about the health impacts of lead exposure at even low levels. There is simply no reason to believe that water systems meeting the current AL are furnishing safe water to their customers. The proposal to leave the AL at 15 ppb would license exactly the sort of inaction that we cannot afford to persist for another 30 years.

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c. As Currently Proposed, the New Trigger Level is Insufficient to Address Deficiencies with Existing Levels.

We understand that EPA’s new Trigger Level (TL) is an attempt to require water systems to begin taking remedial action at observed lead levels lower than the AL. While we appreciate this creative attempt to improve the LCR, this new TL is a half-measure that fails to protect human health in the way either an MCL or a lower AL would. Since EPA should simply lower the AL, a TL is largely unnecessary.

If EPA insists on maintaining the AL at 15 ppb, however, then the TL will only be useful if it is both lower and requires a more vigorous response from water systems when violated than the current proposal.

First, the TL is only triggered for water systems with 90th percentile lead levels over 10 ppb: this is too high. This number should be lower, reflecting the fact that any lead levels are harmful, and water systems with 90th percentile lead levels below 10 ppb should nonetheless be taking strong actions to address lead contamination. Lowering the TL will strengthen the rule by requiring remedial action sooner, even if, as explained immediately below, some of these actions in their current do not go far enough to reduce exposure to lead.

Second, even when the TL is exceeded, the additional planning, monitoring, and treatment requirements that are triggered are insufficient. In particular, the LSLR planning element does not actually require any LSLR, merely planning to potentially do so in the future if the AL itself is exceeded, and a LSLR “goal.” If the AL is not subsequently exceeded, that LSLR plan and goal remains entirely unenforceable. We understand the value that planning and goal-setting could theoretically serve as a preliminary step to prepare a water system for later action, but it would be cold comfort to the families that will continue to be exposed to lead that their water system has an unenforceable plan to remove and replace lead service lines that isn’t being implemented. This last point also illustrates the problem with only requiring steps necessary to protect public health when a treatment-technique standard like the AL (or the proposed TL) is violated: we only require steps to protect health when numeric limits that are, from a health perspective, entirely arbitrary are exceeded. This brings us to the second fundamental shortcoming of the proposed revisions to the LCR.


Lead contamination of drinking water is an entirely manmade problem. So long as the LSLs we put in the ground continue to carry water to the tap the risk of lead
poisoning from drinking water will remain. Accordingly, no number of improvements to the LCR’s corrosion control, tap water monitoring, or public notice and education requirements will entirely safeguard public health. Any revisions to the LCR that fail to address this reality head on are necessarily incomplete. There are two interrelated problems with the proposed revisions in this respect: first, the LCR would continue to only require LSLR when there is an AL exceedance (and even then, too slowly); second, the LCR would continue to put the burden of initiating LSLR on individual residents, rather than mandating a comprehensive LSLR scheme be implemented by the water system. History tells us this is a recipe for inaction.

**a. The Lead and Copper Rule must require proactive lead service line replacement.**

Mandatory LSLR must begin immediately, and irrespective of whether the AL has been exceeded. Waiting for an AL exceedance is unnecessary: we know that any home served by an LSL is experiencing some degree of lead contamination and that any level of lead is unsafe to drink. Further, requiring AL exceedances for mandatory LSLR will only serve to interminably delay what we all know to be the only permanent solution to this problem.

The track record of the current approach is clear. Per EPA’s own analysis, only 85 water systems nationwide have been required to conduct LSLR due to AL exceedances in the past 29 years. In that same EPA analysis, the Agency considered the number of LSLs replaced by these 85 water systems due to AL exceedances to be so small as to be negligible. Accordingly, absent a requirement that all water systems with LSLs engage in proactive LSLR we fear there will be little progress in removing the source of lead poisoning under mandatory LSLR programs. This is especially true given that the proposed revisions to the LCR would continue to allow water systems to discontinue mandatory LSLR if subsequent monitoring yields 90th percentile levels below the AL.

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4 In Wisconsin, where we face significant phosphorus problems, removing LSLs as soon as possible has the added benefit of reducing reliance on orthophosphate as a corrosion control technology. 84 Fed. Reg. 61693, 61722-61723.

5 USEPA, *Economic Analysis for the Proposed Lead and Copper Rule Revisions*, Section 4.3.4.1. (“The EPA reviewed SDWIS/Fed data to determine how many systems had an LSLR “milestone,” indicating that a system must commence LSLR, from 1988 to 2016. The EPA identified a total of 85 CWSs that had this milestone over the 29-year period.”)

6 *Id* (“Because this is a very small fraction of the total CWSs with LSLs, the EPA considered it negligible for this analysis and did not adjust the number of LSLs to account for mandatory replacement.”).

7 If the AL were significantly lowered, then the mandatory LSLR requirements might have a meaningful affect, which ably demonstrates why a lower is AL is needed.
We acknowledge that EPA is proposing some changes to the LSLR provisions of the LCR that are laudable. Disallowing “test outs” and partial lead service line removal (PLSLR) from counting toward a water system’s LSLR obligations when an AL is violated is an improvement. However, it is disappointing that the benefit of these changes will largely, if not entirely, be offset by reducing the annual LSLR requirement for water systems exceeding the AL from 7% to 3% per year.

We understand EPA’s position that a large share of previously-report LSLR was test outs and PLSLR, and that EPA believes incrementally more full-LSLR will take place under the revised rules. 84 Fed. Reg. 61700. However, in addition to the fact that this is conjectural, we see no reason to offset the improvements from one revision—disallowing PLSLR and test outs—with a step back in another revision—reducing the requirement from 7% to 3%. Given that we need to be accelerating LSLR, not simply maintaining the status quo, EPA should, at a minimum, keep the requirement at 7% and prohibit the use of PLSLR and test outs as qualifying replacements.

EPA states that the new 3% replacement requirement “is intended to eliminate LSLs within approximately 33 years of exceeding the action level.” 33 years would be bad enough, but so long as mandatory LSLR is required only when a water system continually violates the AL, this figure is largely meaningless, as total LSLs replaced under this approach since 1991 was, in EPA’s own words, “negligible.” The simple fact is that so long as LSLR is required only when there is an AL exceedance, and the AL is set at 15 ppb, the mandatory LSLR rate will remain insufficient.

Rather than requiring proactive LSLR, EPA’s revisions continue to rely on the idea that water systems will voluntarily replace LSLs without any binding legal requirement to do so. When LSLR only occurs as fast as the water system chooses, however, this pace will be somewhere between nonexistent and glacial. Based on historical data, EPA estimates that only 1% of LSLs are replaced each year under voluntary water utility programs, and that only 28% of those are actually full LSLR, rather than partial replacements.8 Based on this estimate, EPA calculates that only 9.8% of all LSLs have voluntarily been replaced since 1991.9 Put differently, at the actually-observed rate of replacement, it won’t be 33 years until LSLs are a thing of the past, it will be closer to 300 years. Therefore, any argument that mandatory, proactive LSLR is unnecessary because utilities will conduct LSLR voluntarily should be met with skepticism.

The proposed revisions would require water systems to create an LSL inventory and develop an LSLR plan even without an AL exceedance. These steps could make

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8 USEPA, *Economic Analysis for the Proposed Lead and Copper Rule Revisions*, Section 4.3.4.1.
9 USEPA, *Economic Analysis for the Proposed Lead and Copper Rule Revisions*, Section. 4.3.4.1. (Exh. 4-10, n. G).
LSLR easier if there were a subsequent exceedance or the water system decided to begin a voluntary LSLR program. However, they do not actually contain an enforceable requirement that a single LSL be replaced absent an AL exceedance.

Similarly, under the proposed revisions a water system would be required to set a LSLR “goal” if it exceeded the AL. EPA is clear, however, that failing to meet these goals is not a violation of the LCR. 84 Fed. Reg. 61702. Rather, a water system not meeting its LSLR goals would be required to increase its public outreach efforts. 84 Fed. Reg. 61699.

Plainly, neither of these revisions does anything to alter the LCR’s existing approach of only requiring LSLR so long as a water system’s monitoring results are above 15 ppb, a standard that for all but a “negligible” amount of Americans has been indistinguishable from not having a mandatory LSLR requirement at all.

b. The Lead and Copper Rule must require that water systems, not only individual consumers, initiate lead service line replacement.

As noted above, there are changes to the LSLR provisions of the LCR that, in isolation, are steps in the right direction. However, these changes appear to rely on individual residents to spur LSLR, and there is little reason to expect that this would result in meaningful LSLR, particularly when compared with a mandatory, water system-initiated program.

As noted above, requiring water systems to create an LSL inventory is a positive step; there are certainly benefits to knowing how many LSLs are present and where they are located. It is also good to require a water system to replace the water system portion of an LSL if a consumer replaces the “private side.”

However, these revisions appear to rest on the theory if we know where LSLs are and inform residents served by LSLs that they should get their LSLs replaced, this will adequately address the problem because consumers will voluntarily initiate removal of the LSL serving their home:

[A]n LSL inventory will lead to increased awareness of consumers regarding whether they are served by an LSL, which could improve public health protection if affected consumers take action to reduce their exposure to lead in drinking water.

[C]onsumers will learn from their water system if they are served by an LSL, about the risks of lead in drinking water, and about the actions they can take to reduce lead in drinking water and remove their LSL. Some of these customers are expected to voluntarily initiate LSLR, regardless of the water system’s 90th percentile lead level.
However, EPA itself estimated that only a “small number” of LSLs will be replaced under the requirement that a water system replace its portion of a LSL when a customer initiates “private-side” LSLR. There are reasons to worry that this is true, and that the result of a rule that relies on informational tools to generate LSLR will only result in residents being fully informed that their health is at risk and that the water system is not obligated to do anything meaningful about it.

There are numerous barriers for a resident seeking to secure safe drinking water for their family beyond knowledge of the presence of an LSL, none looming larger than cost. Moreover, the piecemeal replacement of LSLs based on consumer requests is undoubtedly less efficient than the planned removal of LSLs by the water system itself. The water system can coordinate LSLR with other water or transportation infrastructure improvements and negotiate with LSLR contractors for projects at scale to save money for the entire system. EPA’s proposed rule acknowledges that one of the potential benefits of an LSL inventory is to unlock efficiencies of scale based on planned LSLR. Yet absent any requirement that the water system actual conduct planned LSLR, these cost efficiencies will remain unrealized.

Further, putting the responsibility for instigating LSLR on the individual homeowner, rather than on the water system raises significant environmental justice concerns. In the absence of either mandated full LSLR or generous new funding to support private LSLR, many Americans will be stuck with LSLs due to their inability to pay. Whether someone continues to be exposed to lead should not be based on how much money they have in their savings account. This problem is compounded by the fact that children living at or below the poverty level are at greatest risk of lead exposure. EPA’s “encourage[ment]” of water systems to find ways to help pay for private-side LSLR is simply not enough to bridge this gap.

Clean Wisconsin and other groups have pushed for increased funding and other actions to accelerate the rate of voluntary LSLR and will continue to do so until proactive, full LSLR is required. But if the object is to reduce exposure to lead in drinking water for the most people, and on an equitable basis, this path will always be inadequate compared with what is well within our means to accomplish. Now is the opportunity for EPA to take bold action to prevent future generations from

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10 “The EPA did not estimate costs to CWSs for replacing the water system-owned portion of an LSL in response to receiving notification that a customer owned portion of an LSL was replaced outside of a water system replacement program. The EPA expects that a small number of these types of replacements would happen annually.” 84 Fed. Reg. 61718.
exposure to lead by requiring proactive LSLR. Maintaining the status quo will sentence generations of Americans to unnecessary risk of lead poisoning.

III. **Proposed Changes to Tap Water Monitoring, Corrosion Control, and Public Education Requirements are Generally Positive, but Could be Improved.**

The proposed revisions would improve tap water monitoring reliability by prohibiting sample collection practices that frustrate the LCR’s intent that water systems collect sample results reflecting lead levels at the highest risk taps. EPA is also proposing to change the sample site selection requirements to better prioritize sampling in highest-risk homes, those served by an LSL. These are useful changes.

EPA proposes a revision that would connect the opportunity for water systems to qualify for reduced monitoring to TL exceedances. While we support more frequent monitoring and therefore higher standards for water systems to qualify for reduced monitoring, this mechanism is insufficient if the TL is set at the proposed 10 ppb. The proposed TL is so high that far too many people will be consuming water with lead levels that can cause severe health effects in water systems that nonetheless qualify for reduced monitoring. Indeed, it is unclear that any water system with significant numbers of LSLs should ever be able to qualify for reduced monitoring, given the constant risk LSLs present, even in water systems that have currently optimized CCT.

We also support requiring water systems that change their source water or make significant treatment changes receive approval from their primacy agency prior to making the change. In response to EPA’s request for comment on the topic, we urge EPA to require increased tap water monitoring at a frequency of once every six months. 84 Fed. Reg. 61736. The number of systems experiencing these changes each year is relatively small, and given the risk posed by changing source water or treatment technique, the additional water monitoring is justified.

There are marginal improvements to the corrosion control provisions of the LCR in EPA’s proposed revisions. Expanding requirements for optimizing, or reoptimizing, CCT, and increased water quality parameter (WQP) monitoring when individual samples exceed the AL may help reduce lead exposure in some instances. However, as noted above, improving corrosion control requirements will only go so far in reducing lead exposure. Corrosion control only serves to limit, not eliminate, exposure to lead, and the constant need to monitor and reoptimize corrosion control would be avoided altogether by proactive LSLR. Put differently, we can stop debating how often to apply band aids if we simply treat the underlying wound.

Further, we appreciate that faster customer notification of high sampling results, mandated customer notification of the presence of an LSL, and increased public education about steps available to address exposure to lead will better inform
individuals of their risk of lead exposure. Transparency is a laudable goal and these changes are beneficial. However, as noted above, providing additional information will not, on its own, adequately protect public health unless other barriers to meaningful action are addressed in this rulemaking.

Further, we are concerned that the notification requirements will leave those who do not reside in single-family homes without proper notice. The notification provisions should spell out more explicitly how those residing in rental properties, as well as multi-unit dwellings, will be notified of lead sampling results and/or the presence of a lead service line.

IV. The New School Testing Provisions are Welcome but can be improved.

The proposed requirements for testing in schools and day care facilities are an important effort to fill a major blind spot in the existing rule. We urge EPA to stick with the proposed revisions, which would require a water system to test all schools and day cares within five years, rather than pursuing the alternative of only requiring testing “upon request.” 84 Fed. Reg. 61731-61732.

There is one notable area for improvement in the proposed rule. EPA should require that all water sources used for drinking water be monitored for lead, not just five at each school and two at each daycare facility. Given that premises plumbing will often be the source of lead in school buildings, as EPA acknowledges, each individual water source may present unique lead exposure risks. 84 Fed. Reg. 61707. Indeed, the “3Ts” program that EPA relies on includes the following remark in Module 4, which gives schools guidance on how to select sampling locations:

**Important:** schools and child care facilities should not use sample results from one outlet to characterize potential lead exposure from all other outlets in their facility. This approach could miss localized lead problems that would not be identified.\(^\text{11}\)

We of course understand that testing all sources of water in a building may require sampling at many sites. For example, a large high school may have significantly more than five drinking water sources. However, as EPA acknowledges, relying on sampling results from just five sources may give the school a false impression of the extent to which lead is or is not a problem in that building.

V. Conclusion

\(^{11}\) USEPA, “3Ts Toolkit” Module 4 available online at [https://www.epa.gov/sites/production/files/2018-09/documents/module_4_conducting_a_walkthrough_and_determining_sample_locations_508.pdf](https://www.epa.gov/sites/production/files/2018-09/documents/module_4_conducting_a_walkthrough_and_determining_sample_locations_508.pdf)
Lead is a serious, widespread, and chronic source of harm to some of the most vulnerable members of our society. This is EPA’s opportunity to address this problem quickly and equitably through creative, bold action. EPA should lower the AL and mandate proactive LSLR that will result in removal all LSLs from our water systems. Instead, despite several significant improvements, at their core the proposed revisions represent a missed opportunity and unnecessary adherence to the status quo, which has utterly failed to protect public health. EPA can do better, and on behalf of Wisconsin’s children, both living and yet unborn, we demand nothing less.

Respectfully submitted this 12th day of February 2020.

/s/ Evan Feinauer
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[add any additional signatories here]