USEPA Lead and Copper Rule Improvements  
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AWWA NJ Section  
Lead and Copper Rule Improvements Position Paper  
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RE: Lead and Copper Rule Improvements (LCRI) Comments

Introduction  
The American Water Works New Jersey (AWWA NJ) Section Water Utility Council (WUC) is providing comments, as presented in this position paper, on behalf of the AWWA NJ Section on recommended revisions to the Lead and Copper Rule Improvements (LCRI) proposed by the United States Environmental Protection Agency (EPA). While AWWA NJ supports EPA’s effort to improve the LCR and enhance public health, we have several recommendations that will improve the logistics and reduce the costs associated with rule implementation and compliance.

AWWA NJ represents over 1,300 members who are united in a mission of providing the residents of New Jersey with safe drinking water. Most of New Jersey's major water utilities, both public and investor-owned, are active members along with engineering and environmental professionals and allied industry businesses. AWWA NJ is dedicated to the promotion of public health and welfare and to the provision of drinking water of unquestionable quality and sufficient quantity, where the WUC is tasked with tracking both Federal and State legislation and regulations on behalf of AWWA NJ.

Position  
The AWWA NJ Section supports the initiative to improve the LCR to enhance public health and the use of a treatment technique rather than a maximum contaminant level (MCL). The AWWA NJ comments that the LCRR and LCRI compliance dates have become overly complex and recommends application of a concurrent compliance date of 2028 for both rules to streamline implementation by water utilities. In addition, the WUC recommends consideration of the comments presented in the seven sections listed below. These sections are Lead Service Line (LSL) Inventories and Replacement, Action Level and Trigger Level, Lead and Copper Tap Monitoring, Sampling after Lead Service Line Replacement and Disturbance, Public Education and Outreach, Distribution System and Site
Assessment and Corrosion Control-Optimization and Re-Optimization. Many of these comments respond to the EPA’s request for comments although not explicitly identified as such.

As EPA is aware, the experience of water utilities in the State of New Jersey adds a valuable and unique perspective where the NJ Department of Environmental Protection (NJDEP) has previously promulgated laws that address much of what is included in the LCRI.

1. LEAD SERVICE LINE (LSL) INVENTORIES and REPLACEMENT

In 2021, Governor Phil Murphy signed into law P.L.2021, Ch. 183 which requires community water systems (CWS) in NJ to identify and replace all lead service lines by 2031. This legislation was an extraordinary effort that comes with many lessons learned by New Jersey’s more than 500 Community Water Systems (CWS) which together serve more than 8 million persons. AWWA NJ recommends that EPA consult with NJDEP and potentially use a similar framework. The simplicity of the law will benefit the regulation to help clarify the complex parts of the LCRR and LCRI.

Inventory

New Jersey has at least 143,314 lead service lines and 1,101,605 service lines having unknown materials as of June 2023 (NJDEP web site, December 2023) according to NJDEP’s compilation of inventories submitted by water utilities in accordance with regulations adopted pursuant to State law. AWWA NJ is concerned that utilities may now need to perform additional work to make these existing inventories consistent with new federal requirements despite the EPA’s assertion to the contrary. We are also concerned with having to manage similar but not identical data bases to satisfy different regulatory entities and that the three-year period between the anticipated October 2024 promulgation of the LCRI and the submission of the Baseline Service Line Inventories in 2027 may not be sufficient for many utilities in New Jersey and nationwide to generate the required documentation.

Other factors that will affect the ability of utilities in New Jersey and elsewhere to complete inventories in a timely manner are the time, expertise, and expense of identifying the materials in service lines and premise plumbing having unknown materials. This is especially true where utilities replaced the portions of services, they owned for one of several possible reasons without making note of the materials present in the portions
they did not own as was often the case in New Jersey before legislation enabled utilities to make improvements to private property. The requirement to identify premise plumbing downstream of the service line to correctly determine the tier of each service is particularly problematic in this regard. Approximately one-third of all services in New Jersey have unknown materials according to utility reported data.

**Replacement**

The LCRI requirements for LSLR will result in difficulties that utilities will most likely encounter during this effort. These difficulties include issues with ownership, costs/funding, potential legal challenges, and the need, in some cases, to perform partial LSL replacements. The regulations, at the very least, should address the following with respect to lead service line replacement requirements:

- **Funding of LSL Replacement Efforts:** mechanisms for utilities to fund full LSL replacement are necessary. Options include grants and low interest loans with loan forgiveness to the utility and/or customer, inclusion of costs in utility construction and capital improvement programs, and customer rebate programs. Legislators and regulators, with support from AWWA, need to identify and establish innovative solutions for funding to address this important public health issue.

- **Flushing Techniques:** ANSI/AWWA C810-17, Replacement and Flushing of LSLs should be incorporated by reference as the protocol for LSL replacement.

- **Customer Notification Requirements:** A robust customer notification and communication process will be necessary for any LSLR, but especially where partial replacements are performed.

- **AWWA NJ agrees with the proposal that all related sampling to LSLR should not be included in the compliance calculations for corrosion control treatment effectiveness as LSLR sampling is not representative of system-wide conditions.**

- **AWWA NJ recommends that the results of post LSLR sampling should be conveyed to the customer within 10 business days rather than 3 days. The additional time will facilitate utilities resolving any quality control or other issues that could occur. The longer response time is reasonable given the 3-to-6-month interval between replacement and sampling and the 6 months hold time on the sample analysis.**

The AWWA NJ’s findings indicate that there remains difficulty in identifying where LSLs exist for many utilities, and for developing funding solutions. We agree that addressing both aspects is important. On average, the cost of a full LSL replacement can range from
$2,500 to more than $10,000 per customer site. Ideally, a framework that will help utilities overcome obstacles to full LSL replacement will achieve a better public health outcome, as recent industry research has shown that partial replacements may potentially adversely impact water quality by increasing levels of lead at the customer’s tap. However, the lack of funding solutions and split ownership of service lines continue to result in the need to perform partial replacements.

AWWA NJ notes that EPA appears to have used the experience of Newark New Jersey as a benchmark when setting LSLR completion rates in the LCRI. Newark was blessed with extraordinary circumstances that overcame the normal funding and legal constraints. It provides an overoptimistic benchmark for other systems.

There are practical limitations that need to be considered in the LCRI when developing strategies for LSLR. These can be quite numerous and can impact the costs and scheduling of work. The issues include:
- shared or complete ownership of the service line by the property owner,
- unsafe work conditions at a customer’s home,
- emergency replacement work,
- the need to coordinate work in the street with municipalities and other utilities,
- the need to inspect and possibly remediate electrical grounding issues,
- difficulty finding property owners, where the property is leased, or the owner is a part time resident, and
- similar site constraints that can further extend replacement schedules and increase compliance costs.

2. **ACTION LEVEL AND TRIGGER LEVEL**
AWWA NJ supports EPA’s decisions to simplify the LCRI by not including provisions for trigger levels and by making full LCLR independent of the 90th percentile lead concentration. However, we also expect that higher percentages of systems will exceed the proposed lower Action Level both because it is lower and because of the changes proposed in tap monitoring procedures. Therefore, utilities will experience higher costs from the re-optimization of corrosion control treatment, more public education, and more notifications of customers whose sample results exceeded the action level.

AWWA NJ remains unconvinced that the lower Action Level is justified by its claimed health benefits from the reduction of lead in potable water.

3. **LEAD AND COOPER TAP MONITORING**
AWWA NJ notes that the LCRI proposes first and fifth-liter sampling where the highest is used for compliance. Simultaneously changing the approach to sampling (1st and 5th liter), using the higher result for computing the 90th percentile, and reducing the lead Action Level is a concern to effectively assess corrosion control treatment. In addition, the first and fifth-liter collection can be problematic for customers to implement. In many cases, the utility is relying on an untrained customer to take the sample at their convenience. This is problematic since, even with proper instruction, there is no way to confirm that the resident has followed the guidelines needed to ensure that a proper sample has been obtained.

**Fifth liter sample.** Fifth liter sample protocols and other sampling strategies, such as sequential sampling, may be useful for diagnostic evaluations and other purposes rather than in the rule construct to trigger evaluation of the effectiveness of corrosion control. EPA should develop guidance on fit-for-purpose sampling protocols which water systems and others can use to investigate individual structures, evaluate changes in corrosion control treatment, help homeowners make informed-decisions, and other applications. A fifth liter sample should not be used for compliance and should only assist the water system in evaluating the source of lead contamination for a LSL.

In addition, AWWA NJ conveys several other comments related to sampling in the LCRI:

- The proposal intends to clarify the definition of Wide-Mouth to be 55 mm outer diameter. This restricts the number and availability bottles. AWWA NJ recommends revising the definition to above 30 mm outer diameter.
- The proposal allows states to invalidate samples that do not meet the sample collection criteria. We support this revision as it is our consensus that most utilities have encountered sampling errors that were used in the compliance sampling and misrepresenting the compliance calculation. For example, samples that are not collected at the kitchen or bathroom, rather samples at a slop sink, a tub faucet, or a hose bib. AWWA NJ recommends adding alternate reasons when it is acceptably for a state to invalidate a sample, including when a sample is found to be collected at point of use treatment and where it is evident that samples were not collected in succession.
- The proposal describes that water utilities can ask a customer to recollect if there is excessive stagnation prior to analysis. EPA requests comments on the time required to define excessive. AWWA NJ recommends that samples having four days or more stagnation be discarded and recollected.
In the proposal, most systems return to standard monitoring. This is a challenge due to laboratory availability, supplies, resources, and utility personnel. AWWA NJ recommends the consideration of a roll out of this requirement by system size starting with small systems first.

In addition, the Tier definitions are complex and need to be clarified:
- AWWA NJ recommends removing the additions regarding premise plumbing. This is private property and cannot be accessed or inventory maintained.
- Tier 3 based on galvanized pipe should be removed as it introduces a different mechanism of lead release and associated CCT strategies.

4. **SAMPLING AFTER LSL REPLACEMENT OR DISTURBANCE (POST LSLR SAMPLING)**

Utilities that have proactively implemented full LSL replacement have raised the issue of a conflict between LCRI compliance monitoring and sampling after a full LSL replacement. The AWWA NJ supports that samples collected during LSL replacements (LSLR) and flushing activities should not be included with Lead and Copper Rule Improvements (LCRI) compliance monitoring efforts and associated compliance calculations. Sampling after a LSLR is not intended to be used to monitor the effectiveness of the corrosion control treatment, rather it is intended to ensure that the internal plumbing was flushed adequately.

Lead and Copper Rule Improvements (LCRI) requires sampling after both full and partial replacement between 3-6 months and after a disturbance such as meter change. AWWA NJ suggests that the sampling be recommended and not mandatory as there is difficulty to have the customer comply with the sampling.

5. **PUBLIC EDUCATION AND OUTREACH**

EPA has included notification and outreach requirements as well as educational requirements under this heading in the LCRI.

**Individual Notification of Tap Sample Results**

It is the consensus of the AWWA NJ that the proposed 3-day sample result notification time frame is not reasonable, and it will be very difficult to comply with this requirement. AWWA NJ recommends a 10-business day requirement the same as the current requirement in New Jersey.
Notification of Lead Action Level Exceedance

AWWA NJ recommends that EPA require utilities to notify customers of a lead action level exceedance in accordance with Public Notification Rule Tier 2 requirements instead of Tier 1 requirements as proposed because all concerned should reserve Tier 1 Notifications for circumstances that pose imminent danger such as the presence of pathogens. We also recommend regardless of which tier EPA ultimately uses that utilities in consultation with their primacy agency be allowed to deliver the notice only to those customers within areas of the system where exceedances occurred or are likely to occur based upon available information including tap sampling results, water quality parameter results, and the presence of LSLs.

Multiple Exceedances

The proposed LCRI requires water systems having three lead action level exceedances in a 5-year rolling period to

- Conduct annual public outreach activities.
- Submit a filter plan to state within 30 days.
- Provide 6 months of filters within 60 days to all customers.
- Provide filters until less than 3 lead action level exceedances in a 5-year rolling period.

AWWA NJ recommends that utilities in consultation with their primacy agency be allowed to provide filters only to potable water customers (excluding non-potable customers such as fire, irrigation, cooling, and process water users) within areas of the system where exceedances occurred or are likely to occur based upon available information including tap sampling results, water quality parameter results, and the presence of LSLs. We note that filters may interfere with the flows or pressures delivered to non-potable water customers in addition to being an expense to utilities.

Sampling Requests

The proposed LCRI requires water utilities to offer to sample the tap for lead for any customer with lead, galvanized requiring replacement (GRR) or unknown service line who requests it. AWWA NJ concurs with EPA that the results of customer requested sampling should not be combined with tap monitoring sample results to calculate compliance with action levels because of differences in sampling methodologies.

Outreach During Work that Could Disturb Lead Service Lines
The proposed LCRI requires that water utilities deliver notice and educational materials to consumers during water-related work that could disturb LSLs. AWWA NJ recommends that utilities in consultation with their primacy agency be allowed to deliver the notification and educational materials only to those customers that have or had LSLs that are likely to be affected by the water-related work.

**Offer to Translate Public Education Materials**

The proposed LCRI requires that water utilities offer to have public education information translated into other languages if the system serves a large proportion of consumers with limited English proficiency. AWWA NJ recommends that only utilities serving populations greater than 10,000 be required to offer to have public education information translated into other languages and that primacy agencies be required to assist smaller utilities should translation services be needed.

6. **DISTRIBUTION SYSTEM AND SITE ASSESSMENT**

LCRI proposed when compliance monitoring samples are above 10 µg/L, the water system should engage that household to encourage them to determine what source of lead is contributing to high values and what remediation options are available to the household. Evaluation of corrosion control practice should not be based on individual high lead values but should be a part of trend analysis to inform responses to trigger an action level exceedance, consideration of new sources and treatment changes, and long-term measure to improve corrosion control. The final rule language must recognize that it may not be possible to identify a specific action to take in every instance, and that the primary purpose of this monitoring is to engage the customer in understanding the sources of lead in their home to assist that customer to act.

AWWA NJ also recommends the following:

- The Distribution System and Site Assessment requires a follow up sample. It appears that the follow up sampling for sites without LSLs are included in the 90th percentile. It should NOT be included in compliance as sampling the same site multiple times is not representative of the entire system’s CCT effectiveness.

- The Distribution System and Site Assessment requires a follow up WQP sample within a half mile of the site that is high. AWWA NJ recommends rewording this to instead say to a representative area of the high site location. A half mile is not always representative depending on different pressure districts and water system boundaries and is not one size fits all to unique water systems.
If the representative follows up WQP parameters are within ranges for the system, it should not be added to the WQP sampling plan as this information is erroneous and is not adding to the CCT effectiveness. If results of the follow up WQP are not within the system ranges, it should be further investigated.

7. **CORROSION CONTROL – OPTIMIZATION AND RE-OPTIMIZATION**

The required steps in the proposed LCRI rule for evaluating corrosion control in the current proposal does allow for some flexibility to water systems seeking to balance multiple water quality, operational constraints, and environmental factors.

The AWWA NJ strongly encourages EPA to revisit its requirements for corrosion control in the proposal and incorporate a toolbox approach to evaluating corrosion control that clearly articulates criteria for balancing objectives and constraints in selecting appropriate lead corrosion control strategies.

**CONCLUSION**

LCRI revisions that provide a realistic approach to help water utilities optimize their corrosion control and lead management practices will help make drinking water the best quality it can be at an affordable cost to consumers. The AWWA NJ Water Utility Council hopes that the suggestions made in this position paper are considered for the revisions to the LCRI. We appreciate your time and consideration to provide high quality and plentiful water to our customers, and a bright future for the water industry.

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