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Adam Krantz

February 11, 2020

Mr. David Ross
Assistant Administrator, Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Mail Code 4101M
Washington, DC 20560
Submitted via: *regulations.gov*

Re: NACWA Comments on EPA's National Drinking Water Regulations: Lead and Copper Rule Revisions (EPA-HQ-OW-2017-0300)

Dear Assistant Administrator Ross:

The National Association of Clean Water Agencies (NACWA) appreciates the opportunity to provide comments on the US Environmental Protection Agency's (EPA or Agency) proposed National Primary Drinking Water Regulations: Lead and Copper Rule (LCR) Revisions, 84 Fed. Reg. 61684 (Nov. 13, 2019). NACWA represents the interests of over 330 public clean water utilities of all sizes and geographic regions that are responsible for managing billions of gallons of wastewater every day to ensure the continued protection of public health and the environment.

NACWA strongly supports appropriate public health protection from lead and copper exposure in drinking water supplies and the proposed LCR revisions make meaningful progress in this regard. However, what is needed more urgently is a renewed federal commitment to greater investment in rebuilding our nation's aging water infrastructure, as well as a comprehensive overhaul of how the Agency determines affordability in the water context.

In response to EPA's efforts to update the 1991 LCR, NACWA formed an internal workgroup of public clean water utility members, many of whom are concerned with the direction the Agency is moving in with the proposed standardized, "one-sized fits all" optimal corrosion control treatment (CCT) methodology. By mandating orthophosphate over alkalinity, chloride, and pH adjustments, EPA is bypassing the traditional, inherent flexibility for drinking water utilities permitted under the Safe Drinking Water Act (SDWA). This workgroup helped inform NACWA's comments that were submitted to EPA on March 8, 2018 (attached) when EPA was seeking preliminary input on what a revised LCR should or should not include.

NACWA members continue to express similar concerns with the LCR proposal as those raised in our March 8 comment letter. Our members feel strongly that even though the LCR is primarily an issue that impacts public water systems, the Agency must consider the downstream water quality impacts—especially as water resources are increasingly viewed in a holistic, one-water framework. The downstream wastewater treatment plants and

water quality impacts beyond drinking water systems also deserve the Agency's attention and consideration.

In a One-Water Framework, Downstream Impacts Play a Role Upstream

It is remarkable that the Agency specifically acknowledges the interrelationship between drinking water systems and wastewater treatment plants in the proposed LCR revisions, yet at the same time precludes upstream utilities from raising concerns over increased nutrient loadings. EPA states "the use of orthophosphate for corrosion control can increase phosphorus loading to wastewater treatment facilities... [which] may be a concern for wastewater systems with phosphorus discharge limits or for systems that discharge into water bodies where phosphorus is a limiting nutrient" (84 Fed. Reg. 61693). EPA then restricts drinking water systems from considering their downstream wastewater treatment neighbors' potential increased cost impacts or water quality degradation, stating, "water systems conducting corrosion control studies would not be able to rule out orthophosphate simply based on the increase in loading to wastewater treatment facilities" (*Id.*).

This "more phosphorus in" philosophy will undoubtedly require wastewater treatment plants, particularly those in arid and semi-arid areas where utilities discharge into low flow or effluent dominated streams, to treat effluent to greater levels at greater costs in order to comply with stringent Clean Water Act (CWA) nutrient requirements. In a true one-water framework, upstream drinking water utilities should be able to consider and make flexible management decisions that are protective of public health as well as protective of downstream water quality.

EPA Should Promote Flexibility and Guide Coordination

EPA should encourage state regulatory authorities to provide downstream clean water utilities with regulatory flexibility—such as considering the development of a variance or conducting a use attainability analysis (UAA)—to account for increased phosphorus concentrations associated with the LCR, where necessary to enable clean water utilities to meet CWA permitting requirements. Downstream wastewater utilities, especially those with stringent nutrient permit limits, will also need adequate time to assess their influent and make meaningful treatment adjustments for increased phosphorus concentrations coming into their systems.

Further, EPA should help guide coordination between public water suppliers and downstream wastewater treatment plants when an upstream utility re-optimizes its CCT and begins adding orthophosphate as a treatment technique. As public water systems add orthophosphate concentrations to their treatment regimes, there is no requirement for upstream utilities to coordinate or relay their CCT techniques downstream. Knowing if, when, and how much phosphorus will be added to the system and how it will impact wastewater influent, will assist wastewater utilities in their efforts to prepare.

Economic Analysis Downplays True Costs of Added Phosphorus Removal

Given these downstream impacts of increased phosphorus loading, EPA's economic analysis of the cost of phosphorus removal per pound is likely underestimated. EPA derived unit costs associated with removal of \$4.59 per pound of phosphorus incrementally added (84 Fed. Reg. 61722). However, NACWA believes it is impractical to standardize a single unit cost for removal of phosphorus because there are many variables and assumptions to consider. For example, some locations with more stringent permit limits have costs upwards of \$13 per pound of phosphorus removed. In addition, the economic analysis assumes wastewater treatment plants have sufficient capacity to manage increased loading and does not consider the added infrastructure capital costs that may be needed to expand capacity. In order to truly assess the cost of incremental phosphorus loading at upstream utilities, a life-cycle cost analysis would need to be conducted.

Conclusion

NACWA recognizes the critical need to address potential lead and copper contamination in drinking water and supports EPA's efforts through the LCR to provide needed clarity on public health protections from these constituents.

However, many of NACWA's members provide drinking water as well as clean water services and recognize that it is possible to provide public health protections through drinking water treatment without sacrificing downstream environmental and water quality. EPA has a unique opportunity with this revision of the LCR to acknowledge and promote a one-water framework for drinking water and clean water utilities in their efforts as public health and environmental stewards.

NACWA recommends EPA not adopt a "one-size fits all" approach to mitigating lead by mandating orthophosphate as the preferred optimal CCT approach but rather continue to support the inherent flexibilities granted under the SDWA for drinking water utilities to make responsible, scientific decisions for their own facility's CCT techniques. In doing so, drinking water utilities can continue safeguarding public health while simultaneously ensuring protection of downstream water quality concerns.

If you have any questions, please contact me by phone at 202/533-1839 or by email at eremmel@nacwa.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Emily Remmel", with a stylized, flowing script.

Emily Remmel
Director of Regulatory Affairs

March 8, 2018

Iliriana Mushkolaj, PhD
Physical Scientist
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1200 Pennsylvania Avenue NW
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Re: Lead and Copper Rule Long-Term Revisions - Preliminary Input on the Impacts to POTWs

The National Association of Clean Water Agencies appreciates the opportunity to provide input to the U.S. Environmental Protection Agency's (EPA) preliminary regulatory rulemaking efforts to revise and update the Lead and Copper Rule (LCR). NACWA supports and strongly advocates for the appropriate protection of public health from potential lead and copper exposure in drinking water. The recent drinking water crisis in Flint, Michigan is an unfortunate example of the potential dangers of lead in drinking water. It also demonstrates the need for greater investment in water infrastructure and the complex challenges of aging infrastructure, affordability, and an outdated regulatory framework.

NACWA recognizes that the LCR is primarily an issue that impacts public water systems (PWSs) under the Safe Drinking Water Act (SDWA), and we know that our sister organizations in the water sector with greater expertise in SDWA issues like the Association of Metropolitan Water Agencies (AMWA) and the American Water Works Association (AWWA) will provide EPA with valuable input during the rulemaking process. But NACWA also urges EPA to consider how the LCR can impact wastewater treatment facilities that are regulated under the Clean Water Act (CWA). Our comments below stress the importance of acknowledging how standardizing corrosion control treatment (CCT) techniques for the drinking water sector can have considerable secondary impacts to publicly owned treatment works (POTWs). As national attention over protecting the public from lead exposure in drinking water continues and EPA embarks on long-term LCR revisions, it has never been more important than now to consider the intersection of the SDWA and the CWA.

NACWA is submitting these comments to provide preliminary input on how EPA might update the LCR and for EPA to consider the secondary impacts to the public clean water utility sector. These are NACWA's initial thoughts on the matter, and the Association will be engaging with its members over the coming months to develop a more detailed position. NACWA will provide specific comments in response to a proposed rulemaking that revises and updates the existing LCR.

Optimize Flexibility Rather Than a One-Size-Fits-All Approach

Water is naturally corrosive depending on a variety of water quality factors including: pH, total alkalinity, dissolved inorganic carbon, calcium and hardness. In addition, the nation's drinking water infrastructure varies in age, material, and maintenance from one location to another.

Because of this significant variability across the country, NACWA strongly advocates that any proposed rulemaking to the existing LCR grant drinking water utilities the flexibility in determining the CCT methods that best fit a community's site-specific water quality needs and infrastructure characteristics.

Since the inception of the LCR, EPA has had a longstanding position of allowing primacy states and drinking water systems to consider water quality data, the numerous treatment options available and the respective treatment limitations, as well as feasibility and costs when determining optimized corrosion control treatment (OCCT). In situations where treatment options may have adverse effects, EPA authorizes states and PWSs the flexibility to select and use other methods of control.

In its recent *2016 Lead and Copper Rule Revisions White Paper*, EPA states that “[d]etermining whether treatment is optimized can be challenging for individual systems, given the wide variability in distribution system composition, source water characteristics, and approaches to complying with other NPDWRs [national primary drinking water regulations], such as surface treatment rules.” Although determining control treatments can be challenging, NACWA strongly advocates that EPA continue to allow PWSs to receive the necessary flexibility to determine the CCT methods that best protect public health in their communities. Further, a “one-size-fits-all” national corrosion control approach that would require drinking water systems to include phosphate-inhibitors and not allow for states or communities to determine alternative CCT techniques would run counter to science and the established local flexibility EPA has acknowledged since the LCR's inception.

In the arid west, water uses are uniquely different than in the east. Because of these differences, it is imperative that EPA adequately consider the source water, water quality, and water uses in the arid west when considering updates to the LCR. For example, phosphorus-based inhibitors—such as orthophosphate—would have significant negative impacts in the water reuse context. Orthophosphate is the most soluble type of phosphorus and would significantly increase the untreated phosphorus concentrations from nonpoint sources such as landscape irrigation employing recycled water. These increased loads of phosphorus will impact the source water quality of downstream communities.

While EPA may offer guidance regarding specific corrosion control technologies, namely that orthophosphate is optional or flexible, in practice states and water systems will be constrained. States have limited resources to offer technical assistance to many small and medium size systems that need it, and as such, states may default to what the federal guidance or rule suggests rather than take the time to demonstrate the benefits of alternatives. Therefore, NACWA strongly encourages EPA to consider the unique aspects of all areas of the country and advocate for real, workable local flexibility in determining the best corrosion control methods.

More Phosphorus In Requires More Phosphorus Out

Around the country, nutrient pollution is degrading surface water quality. Driven by excess phosphorus and nitrogen from point and nonpoint source contributors, communities are witnessing an increase in eutrophication, algal blooms, and subsequent hypoxic zones. In some areas and situations, toxic harmful algal blooms (HABs) have the potential to impact public health and can also have negative economic impacts.

As EPA continues to discuss revisions to the current LCR, NACWA believes it is important to consider the unique opportunity to view this critical regulatory through the lens of a holistic, one water approach that cuts across both the SDWA and the CWA. In particular, if PWSs increase their application and/or concentration of phosphate-based inhibitors for corrosion control, there will be ancillary impacts to POTWs that must also increase their efforts and advanced treatment processes to remove the added phosphorus. A standardized

NACWA Preliminary Input on Lead and Copper Rule Revisions

March 8, 2018

Page 3 of 3

phosphate-inhibitor approach to corrosion control will substantially increase the capital costs of POTWs to meet their water quality-based limits, especially in watersheds where there are strict phosphorous total maximum daily loads (TMDLs). This is especially true in the arid west where treated POTW effluent often dominates local waterways.

NACWA has concerns with a standardized approach that encourages a phosphate-based inhibitor, such as orthophosphate, as the optimal method of corrosion control. The municipal clean water community is committed to addressing excess nutrient loading in compliance with the CWA by implementing more advanced wastewater treatment processes and removing phosphorus from entering surface waters. But EPA, as the regulatory agency that is potentially both requiring drinking water systems to increase the dosage of phosphorus-inhibitors and requiring wastewater plants to meet stringent effluent limits for phosphorus, must evaluate this issue in a more holistic manner. This would be a great opportunity for EPA's Office of Ground Water and Drinking Water, Office of Science and Technology, and Office of Wastewater Management to work collaboratively and in a coordinated manner to address the problem holistically.

Conclusion

Corrosion control mechanisms play a vital role in protecting the public from lead and copper exposure in their drinking water. However, if revisions to the LCR limit flexibility and create a "gold standard" for phosphorus-inhibitors it will considerably impact the clean water community's treatment efforts and resulting costs in meeting their permit limits and addressing nutrient removal. NACWA urges EPA to continue offering states and PWSs the flexibility in determining CCT methods best fit for their site-specific needs and to consider the secondary impacts to POTWs when revising the existing LCR.

Thank you for your consideration of these comments and initial input. Please contact me at eremmel@nacwa.org or 202/533-1839 with any questions or to discuss further.

Sincerely,



Emily Rimmel
Regulatory Affairs, Director

cc: Andrew Hanson, EPA