Environmental Quality

PAT MCCRORY
Governor

DONALD R. VAN DER VAART

Joel Beauvais, Deputy Assistant Administrator

US Environmental Protection Agency
Office of Water, 4101M
1200 Pennsylvania Ave, N.W.
Washington DC 20460

Dear Mr. Beauvais:

Thank you for your Feb. 29, 2016 letter sharing the U.S. Environmental Protection Agency's (EPA) appeal to work together on drinking water protection. We agree about the critical importance of safe drinking water for the health of all Americans and my staff works hard on a daily basis to make it a reality.

Before responding to your specific inquiries, it is critical to note that North Carolina already has implemented efforts that go significantly beyond federal requirements to ensure residents promptly receive notification of high lead sampling results. In addition to adopting the federal public notification rules, North Carolina implemented a rule [15A NCAC 18C .1523(c)] on Oct. 1, 2006 that requires special notification for distribution system samples. Specifically, when a distribution system sample is taken on property not owned or controlled by the supplier of water, the supplier must notify the person authorizing the sample if any individual water sample exceeds an action level, maximum contaminant level, or maximum residual disinfectant level, or if any individual sample is positive for coliform bacteria. For a lead exceedance, a water system owner must provide notice within 48 hours of receipt of the analytical results. We have developed templates specific to contaminants for water systems to use in completing this notification. These "Special Notice" templates are available on our website.

Moreover, in order to ensure that children are protected and that families have the help they need, information on sampling locations with high lead levels (i.e., > 0.015 mg/l) is provided daily to the N.C. Department of Health and Human Services Childhood Lead Poisoning Prevention Program. To help ensure systems are performing lead sampling to identify worst-case scenarios, the state performs random audits of water systems' lead sampling procedures, and has performed nearly 500 over the 10 years of the program's existence. While it is not possible to prevent all elevated lead results, communication protocols and state review helps speed assistance while longer-term solutions are implemented.

With respect to your specific questions we are providing the following responses:

1. Confirm that the state's protocols and procedures for implementing the LCR are fully consistent with the LCR and applicable EPA guidance.

North Carolina adopted the federal rule by reference and implements the Lead and Copper Rule (LCR) in accordance with the primacy agreement with EPA. Therefore, the North Carolina Public Water Supply (PWS) Section's protocols and procedures for implementing the LCR are consistent with the federal rule requirements. We also use available EPA guidance documents in advising water systems regarding compliance with the requirements of the LCR. In a recent teleconference, EPA Region 4 reviewed North Carolina's LCR implementation and did not note any deficiencies or concerns related to their LCR Oversight Framework questions.

2. Use relevant EPA guidance on LCR sampling protocols and procedures for optimizing corrosion control.

The PWS Section has always used EPA guidance on LCR sampling protocols and procedures for optimizing corrosion control for rule implementation. Our website (http://www.ncwater.org/?page=57) includes a guide entitled "Lead and Copper Guidelines: Sampling Pool Site Selection, Sampling Procedures and Follow-up Actions" as well as a link to EPA's Lead and Copper Rule Compliance Help for Primacy Agencies website where water systems can access EPA guidance documents related to the LCR.

3. Post on your agency's public website all state LCR sampling protocols and guidance for identification of Tier 1 sites (at which sampling is required to be conducted).

As mentioned above, North Carolina uses the LCR itself and EPA guidance in advising water systems regarding any LCR compliance issues and provides a link to the guidance on our website. In addition, North Carolina has developed guidance documents and reporting forms based on the requirements of the LCR. The document entitled "Lead and Copper Guidelines: Sampling Pool Site Selection, Sampling Procedures and Follow-up Actions" includes LCR sampling protocols and guidance for identification of Tier 1 sites, along with other pertinent information. Sample collection procedures and descriptions of LCR Tier levels are also included in the instructions on the back of our Lead and Copper Distribution System laboratory reporting forms. We have also published Regulatory Updates, which is distributed to public water systems to inform systems of upcoming rule changes or proposed changes along with tips to maintain compliance with the various drinking water rules. For instance, our 2006 Regulatory Update included an article that advised water systems not to remove faucet aerators prior to conducting LCR sampling. We will also mail a copy of our updated Lead and Copper Guidelines, which references EPA's Feb. 29, 2016 memo entitled "Clarification of Recommended Tap Sampling Procedures for Purposes of the Lead and Copper Rule," and applicable reporting forms to all water systems in North Carolina subject to the LCR.

4. Work with public water systems – with a priority emphasis on large systems – to increase transparency in implementation of the LCR by posting on their public website and/or on your agency's website:

-- the materials inventory that systems were required to complete under the LCR, including the locations of lead service lines, together with any more updated inventory or map of lead service lines and lead plumbing in the system; and

In accordance with the 1991 federal lead and copper rule, water systems completed a materials evaluation of their distribution system in order to identify a pool of targeted sampling sites for lead and copper. Sources of information reviewed included material inventories, plumbing codes, permits, records in the files of building departments that indicated plumbing materials installed in publically and privately owned structures; all inspection reports of the distributions system that indicated material composition of service connections; and existing water quality information indicating locations that may be particularly susceptible to high lead or copper concentrations. Although water systems used this information to create a sampling plan, the information was not submitted to the State as part of the sampling plan. The placement of voluminous information gathered from these materials evaluations, most of which were conducted more than 20 years ago, on either the water system's website or on our agency's website would be overwhelming.

Alternatively, North Carolina is in the process of drafting a letter to all water systems subject to the LCR to share information, such as EPA's sampling protocol guidance, and to remind the systems of the need to alert the State before any change in source or long-term change in treatment. Along with this information, systems will be directed to review and update their information that was previously submitted on their Construction Materials Report form, Sample Siting Plan-Site Selection Process form, and Sampling Pool Spreadsheet. Sampling Pool Sites served by lead service lines are to be denoted as such on the spreadsheet. Upon receipt, these forms will be reviewed, placed in our files, and will be available for public review, upon request.

-- LCR compliance sampling results collected by the system, as well as justification for invalidation of LCR samples

North Carolina uses Drinking Water Watch (DWW) to display information to the general public about regulated public water systems. Individuals can review the calculated 90th percentile values as well as individual sample results from DWW. A link to DWW is included on our website (http://www.ncwater.org/?page=9). At present, Drinking Water Watch does not display sample results that have been invalidated or justifications for invalidation. Should EPA create this capability in their

programming for SDWIS Prime, it may be possible to display invalidated sample results, as well as justifications for invalidations.

North Carolina does not invalidate a sample unless one of the four explicit conditions stated in the LCR is demonstrated in writing by a water system. Since 2006, North Carolina has invalidated only 37 samples from three water systems.

5. Enhance efforts to ensure that residents promptly receive lead sampling results from their homes, together with clear information on lead risks and how to abate them, and that the general public receives prompt information on high lead levels in drinking water systems.

As noted above, North Carolina goes above and beyond the federal minimum elements related to notification. North Carolina fully implements the Public Education and Lead Consumer Notice requirements of the LCR. Templates containing all of the required elements and language have been developed for each of these notices and are available on our website. As per the federal rule, these notices must include health effects language and information on how to reduce exposure to lead in drinking water. Lead Consumer Notices that relay individual sample results to each location sampled (even if lead was not detected) are required to be distributed as soon as practical, but no later than 30 days after the system learns of the tap monitoring results. Finally, we have identified four specific items regarding the Lead and Copper Rule for which we recommend EPA should take immediate action to improve the Rule.

1. EPA should revise the Lead Consumer Notice deadline to require notification within 48 hours instead of the currently required 30 days to all people who receive water from sites that were sampled if the result exceeds the lead or copper action level. Since 2006, North Carolina has required a special consumer notice for any sample above a maximum contaminant level, action level or maximum residual disinfectant level within 48 hours for contaminants listed as Tier 2 in Appendix A to 40 CFR 141 Subpart Q and 24 hour notice for contaminants listed as Tier 1. This is true whether or not the system has a violation or action level exceedance. The system-wide public notification timeframes, if applicable, follow EPA requirements, but for the individuals actually known to be receiving tap water over regulatory limits, such timely notification is critical.

2. EPA should issue a memorandum to correct the unintended consequences of the Nov. 23, 2004 EPA memorandum from Benjamin H. Grumbles, Acting Assistant Administrator, to Regional Administrators and Water Division Directors or clarify in the rule which samples are to be used for calculating the 90th percentile. The rule construct is very precise in requiring samples to be from pre-determined sampling pool locations meeting the Tier level criteria. Mr. Grumbles' memo runs counter to this in two ways,

which increase the odds that a system could choose to manipulate the data set to avoid exceedances. First, EPA's interpretation requires that all confirmation or investigatory samples collected during the compliance period be included in the 90th percentile calculation. This interpretation discourages systems from conducting additional monitoring at locations with elevated lead to determine if their corrective actions are having a positive impact. EPA should encourage systems to proactively address exceedances at individual sample locations even without a system-wide action level exceedance. Including multiple samples taken from the same elevated locations in the 90th percentile calculation skews the data and could improperly cause an action level exceedance. It also would allow a system that would otherwise trigger an action level exceedance to take extra samples at locations with no detection and manipulate the calculated result. The fundamental premise in not allowing inclusion of resampled locations is that a system should not be able to manipulate a data set in any way based on knowledge of the expected result at a particular location. As an alternative, systems resampling at the same locations during one compliance period could be directed to use the highest reading for the 90th percentile calculation. Second, EPA's interpretation requires that monitoring during the compliance period at any location that meets site selection criteria be included in the 90th percentile calculation. There is no benefit in having a pre-determined sampling pool with state review and oversight if systems can and must submit samples that are not within the sampling pool for inclusion on compliance calculations. With this interpretation, the integrity and purpose of the sampling pool is undermined. Until such time EPA can correct these problems with rulemaking, EPA should address these issues in a revised policy memorandum.

3. The EPA should clarify that rule to avoid an interpretation that after an Action Level Exceedance, non-community systems are required to install corrosion control treatment even if they own all the plumbing and fixtures and have removed the lead-containing components. Until such time EPA can correct this problem with rulemaking, EPA should issue a policy memo stating that in lieu of installing treatment, a water system that owns the entirety of the plumbing may comply by replace piping and fixtures to remove the presence of lead with no additional treatment required.

4. The rule requirements pertaining to sampling in homes and the collection of first-draw tap samples (i.e. sample of water that has stood motionless in the plumbing system for at least six hours), is very difficult to implement. Because of the first-draw requirement, the samples must be collected by residents instead of water system personnel. There is difficulty finding willing participants, getting those willing to sample properly and timely, and knowing the sampling was done properly. As the objective of the rule is to check the corrosively of the water to lead pipes and fittings, perhaps monitoring from lead

pipes or coupons in a skid mount at the water treatment plant may be a more effective approach than residential monitoring.

We look forward to continued dialogue with EPA as we all work to ensure the safety and sustainability of our drinking water systems. If you need additional information, please contact Jessica Godreau, Section Chief of the Public Water Supply Section at (919) 707-9078 or Jessica.godreau@ncdenr.gov.

Sincerely,

Donald R. van der Vaart

Cc: Peter Grevatt, Director, USEPA Office of Ground Water and Drinking Water

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