



PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

March 24, 2016

Ms. Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
Office of the Administrator  
Mail Code 1101A  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Ms. Nancy Stoner  
Acting Assistant Administrator for Water  
U.S. Environmental Protection Agency  
Office of Water  
Mail Code 4101M  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Re: Petition for Rulemaking to Strengthen the Lead and  
Copper Rule under the Safe Drinking Water Act

Dear Ms. McCarthy and Ms. Stoner:

Enclosed for submission to the U.S. Environmental Protection Agency ("EPA") by the North Carolina Department of Environmental Quality ("DEQ") is the above-referenced Petition for Rulemaking to Strengthen the Lead and Copper Rule under the Safe Drinking Water Act. DEQ is petitioning EPA to take immediate action to revise the federal Lead and Copper Rule at 40 CFR Part 141 Subpart I as set out in the Petition.

Thank you for your prompt attention to this submission.

Sincerely,

A handwritten signature in blue ink that reads "Van der Vaart". The signature is written in a cursive style and is enclosed within a large, hand-drawn blue oval. Below the signature is the printed name "Donald R. van der Vaart".

Donald R. van der Vaart

Enclosure



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individuals actually known to be receiving tap water over regulatory limits, such timely notification is critical. The rule should be amended as follows:

§ 141.85(d)(2) Timing of notification. A water system must provide the consumer notice as soon as practical, but no later than 30 days after the system learns of the tap monitoring results for samples at or below the lead or copper action level and within 48 hours for samples above the action level.

## II. 90<sup>th</sup> Percentile Calculations and Monitoring

EPA should clarify in the rule which samples are to be used for calculating the 90<sup>th</sup> percentile. The November 23, 2004, EPA memorandum from Benjamin H. Grumbles, Acting Assistant Administrator, to Regional Administrators and Water Division Directors on this issue had serious, unintended consequences that need to be fixed in the rule itself. The rule construct is very precise in requiring samples to be from pre-determined sampling pool locations meeting the Tier level criteria. Mr. Grumbles' memorandum 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, he requires that all confirmation or investigatory samples collected during the compliance period be included in the 90<sup>th</sup> 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. We want to encourage systems to proactively address exceedances at individual sample locations, even those without a system-wide action level exceedance. Including multiple samples taken from the same elevated locations in the 90<sup>th</sup> 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 of 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. The rule should be amended as follows:

§ 141.86(e) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this

section shall be considered by the system and the State in making any determinations (i.e., calculating the 90<sup>th</sup> percentile lead or copper level) under this subpart:

- (1) If a system resamples at a previously sampled location during a compliance period, the system shall use only the highest value measured at that location for compliance determinations.
- (2) If a system collects samples for investigation or at customer request during the compliance period, samples shall be included in the compliance determination for the 90<sup>th</sup> percentile only if the sites can be determined to meet site selection criteria and the residents agree to be added to the sample site location plan.

In addition, the memorandum requires monitoring during the compliance period at any location that meets site selection criteria to be included in the 90<sup>th</sup> 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 compromised. If the objective is to ensure that systems do not drop sites with elevated lead or copper levels, then the Rule should address that issue specifically without adding additional burden or constraint on water systems trying to find households willing to participate in the sampling program. The rule should be amended as follows:

§ 141.86 Monitoring requirements for lead and copper in tap water.

(a) *Sample site location.*

(1) By the applicable date for commencement of monitoring under paragraph (d)(1) of this section, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (c) of this section. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(i) Water systems may update the sampling site location plan to add new sample locations to the sampling plan at

any time sites meeting site selection criteria are available.

(ii) When sites in the sample site location plan are unwilling or unable to continue to participate in monitoring, water systems shall update the sampling site location plan. If the site had previous lead or copper levels above the action level, written justification for removing the site must be provided to the state within 30 days.

### **III. Partial Lead Service Line Replacement**

Recent research has concluded that partial lead service line replacement can cause increased lead levels and is not recommended.<sup>1</sup> Systems cannot be mandated to perform lead service line replacement on private property for which they have no authority or control. Therefore, as currently written in § 141.84(d), the rule can compel a water system owner to perform partial lead service line replacements, which, according to recent research, can be expected to increase lead levels in drinking water. The rule should be amended so that partial lead service line replacement is not required if the homeowner does not agree to replace the part of the service line they own.

### **IV. Corrosion Control Treatment vs Removal**

Under § 141.82, after an Action Level Exceedance, the rule implies systems are required to install corrosion control treatment even if they own all the plumbing and fixtures and would prefer to remove the lead-containing components. The rule should be amended to clarify that non-transient, non-community or other systems that own and control all of the plumbing of the system may remove the lead or copper versus installing treatment as follows:

§ 141.82(a) *System recommendation regarding corrosion control treatment.* Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium-size water systems exceeding the lead or copper action level shall recommend installation of one or more of the corrosion control treatments listed in paragraph (c)(1) of this section which the system believes constitutes optimal corrosion control for that system. The State may require the system to conduct additional

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<sup>1</sup> “Evaluation of the Effectiveness of Partial Service Line Replacements”, U.S. Environmental Protection Agency, Science Advisory Board Memorandum, (28 Sept. 2011)

water quality parameter monitoring in accordance with § 141.87(b) to assist the State in reviewing the system's recommendation.

§ 141.82(c) *Performance of corrosion control studies.*

(1) Any public water system performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:

- (i) Alkalinity and pH adjustment;
- (ii) Calcium hardness adjustment; and
- (iii) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.
- (iv) Non-community system owners may remove all plumbing and fixtures containing lead or copper, depending on the type of action level exceedance, instead of recommending and installing corrosion control treatment.

## CONCLUSION

The provisions of this petition are severable: if any part is deemed to be invalid or unenforceable, the invalidity or lack of legal obligation shall not affect other terms. As required by law, EPA must give this petition prompt consideration. Given the importance of these issues, Petitioners request that the EPA respond to this petition within 90 days. Respectfully submitted,



Donald R. van der Vaart

Secretary, North Carolina Department of Environmental Quality

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