

The State of New Hampshire

DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner



Date: March 11, 2016

To: All NH Community and Non-Community, Non-Transient Public Water Systems

From: Sarah Pillsbury, Drinking Water and Groundwater Bureau Administrator, New Hampshire
Department of Environmental Services (NHDES)

Subject: Lead and Copper Rule (LCR) Recommended and Required Practices

The primary purpose of this memo is to share with you information recently received from the Environmental Protection Agency (EPA) regarding the Lead and Copper Rule (LCR).

Attached you will find two documents:

1) The 2/29/2016 memo from EPA's Office of Groundwater and Drinking Water: "Clarification of recommended Tap Sampling Procedures for Purposes of the Lead and Copper Rule" (which includes a revised version of "Suggested Directions for Homeowner Tap Sample Collection Procedures");
(http://www.epa.gov/sites/production/files/2016-02/documents/epa_lcr_sampling_memorandum_dated_february_29_2016_508.pdf)

2) The 2/29/16 letter sent to NHDES Commissioner Burack from Joel Beauvais, the head of EPA's Office of Water.

(<http://www.epa.gov/sites/production/files/2016-03/documents/samplelettercommissionersfeb2016.pdf>)

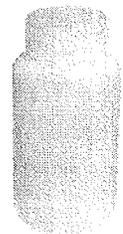
These documents contain recommendations and reinforce certain requirements for implementing the LCR, given the lessons learned recently in Flint, Michigan, where many customers of a municipal water system have elevated lead blood levels from drinking water contaminated with lead. We have summarized the key messages from EPA and NHDES concerning implementation of the LCR below and we ask that you now incorporate these practices into your procedures. We recognize that making the requested changes will require many water systems to provide training to those that are performing the sample collection.

We also want to let you know that that NHDES is planning to work with municipal public water systems in the near future to better understand if any lead pipe or goosenecks still exist in their systems and to review their current sampling sites. We will also be having discussions related to EPA's request to post additional sampling related information on the web (see attachment 2). Finally, NHDES is currently identifying training opportunities to further encourage and explain the following recommended or required practices.

Recommended or Required Practices:

1. SAMPLING PROTOCOLS

Wide Mouth Sample Bottles – Collecting samples using wide-mouth bottles (see picture on right) is recommended in order to facilitate the collection of the first flush of water at a flow similar to when the water is used for consumption. Tap flow is



www.des.nh.gov

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095
Telephone: (603) 271-2513 Fax: (603) 271-5171 TDD Access: Relay NH 1-800-735-2964

critical to capture potential particulate lead that may not be released from the piping or fixtures under low flow conditions. NHDES has communicated with all NH certified laboratories in the state and confirmed that they are ready to provide wide-mouth bottles as needed.

No Pre-flushing – EPA has issued guidance advising NOT to intentionally flush the water line prior to the start of the 6 hour minimum stagnation period (example: running the water to cold the night before a first draw sample), as this may underestimate exposure. Sample collection should be performed either first thing in the morning or upon returning home in the evening, from an interior sink that has been “used for drinking water consumption in the past few weeks”. However, there is no maximum limit on the amount of time the faucet has been unused before the sample is collected.

Sampling Sites – Samples should be taken from cold water faucets, not mixed hot/cold faucets, if at all possible. Aerators should not be removed. When the LCR was implemented in the early 1990’s, all non-transient public water systems were required to select lead and copper sampling sites based on risk of lead exposure and the type of structure. NHDES recommends periodic review of sample sites to ensure that sampling is occurring where the risk is greatest. NHDES is available to consult with systems on this recommendation.

2. SOURCE WATER AND TREATMENT CHANGES

The LCR requires NHDES oversight before any change in the source of water supplied or change in treatment that could increase lead or copper in tap water. NHDES will work with non-transient systems to identify what testing or studies are necessary to evaluate a proposed change prior to implementation and what monitoring is appropriate thereafter. At a minimum, two semi-annual sample rounds will be required after a change occurs.

3. PUBLIC EDUCATION REQUIREMENTS

Consumer Notification - The 2007 LCR Amendments require mailing laboratory results to the homes that were sampled within 30 days of the water system receiving the results. Certification of this mailing to NHDES within 90 days is also required. Consumer Notification is required whether results exceed the action level or not. It is now recommended that water systems mail the Consumer Notification letters for those locations that have any detectable lead concentrations as soon as is possible after receiving the results. If levels are elevated, and certainly if they are at or above the lead action level of 15 ppb, immediate outreach to the customer is recommended to inform them of the result and encourage that they flush (run to cold) all taps used for drinking prior to use until the elevated level can be addressed.

Lead Education - When more than 10% of lead sample results exceed 15 ppb, the water system incurs a “Lead Action Level Exceedance” requiring distribution of mandated lead education language to ALL water system customers within 60 days of notification from NHDES. It is now recommended that water systems perform this outreach as soon as possible, at least to customers in close proximity to where sample results are above the action level. The mandated language includes recommendations on daily flushing and evaluating and removing any lead-containing components in home plumbing.

Thank you in advance for your efforts to comply with this request. Please contact me at 603-271-1168 or Sarah.Pillsbury@des.nh.gov if you have any questions or concerns about the changes outlined above.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 29 2016

OFFICE OF
WATER

MEMORANDUM

SUBJECT: Clarification of Recommended Tap Sampling Procedures for Purposes of the Lead and Copper Rule

FROM: Peter C. Grevatt, Director
Office of Ground Water & Drinking Water 

TO: Water Division Directors
Regions I - X

The Lead and Copper Rule, 40 C.F.R. Sections 141.80 to 141.91, requires monitoring at consumer taps to identify levels of lead in drinking water that may result from corrosion of lead-bearing components in a public water system's distribution system or in household plumbing. These samples help assess the need for, or the effectiveness of, corrosion control treatment. The purpose of this memorandum is to provide recommendations on how public water systems should address the removal and cleaning of aerators, pre-stagnation flushing, and bottle configuration for the purpose of Lead and Copper Rule sampling.

Removal and Cleaning of Aerators

EPA issued a memorandum on *Management of Aerators during Collection of Tap Samples to Comply with the Lead and Copper Rule* on October 20, 2006. This memorandum stated that EPA recommends that homeowners regularly clean their aerators to remove particulate matter as a general practice, but states that public water systems should not recommend the removal or cleaning of aerators prior to or during the collection of tap samples gathered for purposes of the Lead and Copper Rule. EPA continues to recommend this approach. The removal or cleaning of aerators during collection of tap samples could mask the added contribution of lead at the tap, which may potentially lead to the public water system not taking additional actions needed to reduce exposure to lead in drinking water. EPA's recommendation about the removal and cleaning of aerators during sample collection applies only to monitoring for lead and copper conducted pursuant to 40 C.F.R. 141.86.

Pre-Stagnation Flushing

EPA is aware that some sampling instructions provided to residents include recommendations to flush the tap for a specified period of time prior to starting the minimum 6-hour stagnation time required for samples collected under the Lead and Copper Rule. This practice is called pre-stagnation flushing. Pre-stagnation flushing may potentially lower the lead levels as compared to when it is not practiced.

Flushing removes water that may have been in contact with the lead service line for extended periods, which is when lead typically leaches into drinking water. Therefore, EPA recommends that sampling instructions not contain a pre-stagnation flushing step.

Bottle Configuration

EPA recommends that wide-mouth bottles be used to collect Lead and Copper compliance samples. It has become apparent that wide-mouth bottles offer advantages over narrow-necked bottles because wide-mouth bottles allow for a higher flow rate during sample collection which is more representative of the flow that a consumer may use to fill up a glass of water. In addition, a higher flow rate can result in greater release of particulate and colloidal lead and therefore is more conservative in terms of identifying lead concentrations.

Conclusion

EPA is providing these recommendations for collection of Lead and Copper Rule tap samples to better reflect the state of knowledge about the fate and transport of lead in distribution systems. The three areas discussed above may potentially lead to samples that erroneously reflect lower levels of lead concentrations. The recommendations in this memorandum are also consistent with the recommendations provided by the EPA's Flint Task Force. For more information about the Task Force please view EPA's website at: <http://www.epa.gov/flint>.

To provide further information on this topic, EPA included an amended "Suggested Directions for Homeowner Tap Sample Collection Procedures" in Appendix D of the 2010 revision of *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems* (EPA 816-R-10-004). This document can be found at:

<http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100DP2P.txt>

Please share these recommendations with your state drinking water program directors. If you have any questions, please contact Anita Thompkins at thompkins.anita@epa.gov.

Attachment

cc: James Taft, Association of State Drinking Water Administrators

Suggested Directions for Homeowner Tap Sample Collection Procedures

Revised Version: February 2016

These samples are being collected to determine the lead and copper levels in your tap water. This sampling effort is required by the U.S. Environmental Protection Agency and your State under the Lead and Copper Rule, and is being accomplished through a collaboration between the public water system and their consumers (e.g. residents).

Collect samples from a tap that has not been used for at least 6 hours. To ensure the water has not been used for at least 6 hours, the best time to collect samples is either early in the morning or in the evening upon returning from work. Be sure to use a kitchen or bathroom cold water tap that has been used for drinking water consumption in the past few weeks. The collection procedure is described below.

1. Prior arrangements will be made with you, the customer, to coordinate the sample collection. Dates will be set for sample kit delivery and pick-up by water system staff.
2. There must be a minimum of 6 hours during which there is no water used from the tap where the sample will be collected and any taps adjacent or close to that tap. Either early mornings or evenings upon returning home are the best sampling times to ensure that the necessary stagnant water conditions exist. Do not intentionally flush the water line before the start of the 6 hour period.
3. Use a kitchen or bathroom cold-water faucet for sampling. If you have water softeners on your kitchen taps, collect your sample from the bathroom tap that is not attached to a water softener, or a point of use filter, if possible. Do not remove the aerator prior to sampling. Place the opened sample bottle below the faucet and open the cold water tap as you would do to fill a glass of water. Fill the sample bottle to the line marked "1000-mL" and turn off the water.
4. Tightly cap the sample bottle and place in the sample kit provided. Please review the sample kit label at this time to ensure that all information contained on the label is correct.
5. If any plumbing repairs or replacement has been done in the home since the previous sampling event, note this information on the label as provided. Also if your sample was collected from a tap with a water softener, note this as well.
6. Place the sample kit in the same location the kit was delivered to so that water system staff may pick up the sample kit.
7. Results from this monitoring effort and information about lead will be provided to you as soon as practical but no later than 30 days after the system learns of the tap monitoring results. However, if excessive lead and/or copper levels are found, immediate notification will be provided (usually 1-2 working days after the system learns of the tap monitoring results).

Call _____ at _____ if you have any questions regarding these instructions.

TO BE COMPLETED BY RESIDENT	
Water was last used: Time _____	Date _____
Sample was collected: Time _____	Date _____
Sample Location & faucet (e.g. Bathroom sink): _____	
I have read the above directions and have taken a tap sample in accordance with these directions.	
Signature _____	Date _____



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 29 2016

OFFICE OF WATER

Commissioner Thomas Burack
New Hampshire Department of Environmental Services
29 Hazen Drive
Concord, NH 03301

Dear Commissioner Burack:

There is no higher priority for the U.S. Environmental Protection Agency than protecting public health and ensuring the safety of our nation's drinking water. Under the Safe Drinking Water Act (SDWA), New Hampshire and other states have the primary responsibility for the implementation and enforcement of drinking water regulations, while the EPA is tasked with oversight of state efforts. Recent events in Flint, Michigan, and other U.S. cities, have led to important discussions about the safety of our nation's drinking water supplies. I am writing today to ask you to join in taking action to strengthen our safe drinking water programs, consistent with our shared recognition of the critical importance of safe drinking water for the health of all Americans.

First, with most states having primacy under SDWA, we need to work together to ensure that states are taking action to demonstrate that the Lead and Copper Rule (LCR) is being properly implemented. To this end, the EPA's Office of Water is increasing oversight of state programs to identify and address any deficiencies in current implementation of the Lead and Copper Rule. EPA staff are meeting with every state drinking water program across the country to ensure that states are taking appropriate actions to address lead action level exceedances, including optimizing corrosion control, providing effective public health communication and outreach to residents on steps to reduce exposures to lead, and removing lead service lines where required by the LCR. I ask you to join us in giving these efforts the highest priority.

Second, to assure the public of our shared commitment to addressing lead risks, I ask for your leadership in taking near-term actions to assure the public that we are doing everything we can to work together to address risks from lead in drinking water. Specifically, I urge you to take near-term action in the following areas:

- (1) Confirm that the state's protocols and procedures for implementing the LCR are fully consistent with the LCR and applicable EPA guidance;
- (2) Use relevant EPA guidance on LCR sampling protocols and procedures for optimizing corrosion control;
- (3) Post on your agency's public website all state LCR sampling protocols and guidance for identification of Tier 1 sites (at which LCR sampling is required to be conducted);
- (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
 - LCR compliance sampling results collected by the system, as well as justifications for invalidation of LCR samples; and
- (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.

These actions are essential to restoring public confidence in our shared work to ensure safe drinking water for the American people. I ask you for your leadership and partnership in this effort and request that you respond in writing, within the next 30 days, to provide information on your activities in these areas.

To support state efforts to properly implement the LCR, the EPA will be providing information to assist states in understanding steps needed to ensure optimal corrosion control treatment and on appropriate sampling techniques. I am attaching to this letter a memorandum from the EPA's Office of Ground Water and Drinking Water summarizing EPA recommendations on sampling techniques. We will also be conducting training for state and public water systems staff to ensure that all water systems understand how to carry out the requirements of the LCR properly. Finally, we are working to revise and strengthen the LCR, but those revisions will take time to propose and finalize; our current expectation is that proposed revisions will be issued in 2017. The actions outlined above are not a substitute for needed revisions to the rule, but we can and should work together to take immediate steps to strengthen implementation of the existing rule.

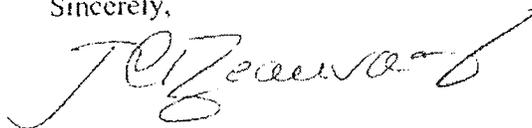
While we have an immediate focus on lead in drinking water, we recognize that protection of the nation's drinking water involves both legacy and emerging contaminants, and a much broader set of scientific, technical and resource challenges as well as opportunities. This is a shared responsibility involving state, tribal, local and federal governments, system owners and operators, consumers and other stakeholders. Accordingly, in the coming weeks and months, we will be working with states and other stakeholders to identify strategies and actions to improve the safety and sustainability of our drinking water systems, including:

- ensuring adequate and sustained investment in, and attention to, regulatory oversight at all levels of government;
- using information technology to enhance transparency and accountability with regard to reporting and public availability of drinking water compliance data;
- leveraging funding sources to finance maintenance, upgrading and replacement of aging infrastructure, especially for poor and overburdened communities; and
- identifying technology and infrastructure to address both existing and emerging contaminants.

As always, the EPA appreciates your leadership and engagement as a partner in our efforts to protect public health and the environment. Please do not hesitate to contact me, or your staff may contact Peter Grevatt, Director of the Office of Ground Water and Drinking Water at grevatt.peter@epa.gov or (202) 564-8954.

Thank you in advance for your support to ensure that we are fulfilling our joint responsibility for the protection of public health and to restore public confidence in our shared work to ensure safe drinking water for the American people.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Beauvais". The signature is fluid and cursive, with a long horizontal stroke at the end.

Joel Beauvais
Deputy Assistant Administrator

Enclosure

