



Fact Sheet: Lead Service Line Replacement (LSLR) In Response to a Lead Action Level Exceedance

(Version 1, August 2017)

Introduction

The Federal Lead and Copper Rule applies to community water systems and non-transient non-community water systems. Systems that fail to meet the lead action level in tap samples, after installing corrosion control and/or source water treatment, must replace at least 7% of the initial number of lead service lines (LSL) in its distribution system annually as long as they exceed the lead action level. The initial number of LSLs is based on the number in place at the time the replacement program begins (the program is based on a 15 year timeframe).

LSLs to be Replaced

- A system is required to replace the portion of the LSL that it owns.
- In cases where the system does not own the entire LSL, the system must notify the owner that the system will replace the portion of the LSL that it owns and offer to replace the owner's portion of the line.
 - A system is not required to bear the cost of replacing the privately-owned portion of the LSL, nor is it required to replace the privately-owned portion where the owner chooses not to pay the cost of replacing their portion of the LSL.
- If a system does not own any portion of the LSL, annually it must offer to replace 7% of the customers' lines at the customers' expense.
- A system is not required to replace an individual LSL if the system has sampled in accordance with 141.86(b)(3) as outlined below and the results from that line are less than or equal to 0.015mg/L.

Initial LSLR

- The system must identify the number of LSLs in its distribution system, including identification of the portions owned by the system, based on a materials evaluation.
- To determine the 7% of LSLs the system must replace, the system must take the number of LSLs in place at the time the replacement program begins and multiply it by 0.07.

$$\text{Initial Number of LSL} \times 0.07 = 7\% \text{ LSL to replace}$$

- The first year of LSLR starts on the first day following the end of the monitoring period in which the lead action level was exceeded.
- If monitoring is required annually, or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs.
- The system must continue replacing the required percentage of LSLs each year until it no longer exceeds the lead action level during two consecutive 6 month monitoring periods.

Resuming LSLR

- If a system previously ceased its LSLR program and has to resume due to another lead action level exceedance, the system must update its LSL inventory to include all remaining LSLs including those that were previously determined not to require replacement through the sampling provision under 40 CFR 141.84(b)(2) as outlined below.
- The system will then divide the updated number of remaining LSLs by the number of remaining years in the program to determine the number of LSLs that must be replaced per year.

$$\frac{\text{Remaining LSL}}{\text{Remaining Years}} = \text{Number LSLR per year}$$

- After the system has completed the 15-year replacement program the State will schedule replacing or retesting of LSLs that were previously tested under the replacement program (see LSL sampling below) if the system exceeds the lead action level again in the future.

Partial LSLR

Systems that do not replace the entire length of the LSL must complete the following tasks:

- At least 45 days prior to commencing with the partial replacement of a LSL, the system must provide notice to the resident(s) of all buildings served by the LSL explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead.
 - The State may allow the system to provide this notice less than 45 days prior to commencing partial LSLR where such replacement is in conjunction with emergency repairs (e.g., water main break).
- **New Jersey strongly recommends collecting a sample from the existing LSL prior to conducting any partial LSLR.**
- The system must inform the resident(s) served by the LSL that the system will, at the system's expense, collect a sample from each partially-replaced LSL that is representative of the water in the LSL for analysis of lead content, within 72 hours after the completion of the partial replacement of the LSL.
- The system must collect the sample and report the results of the analysis to the owner and the resident(s) served by the LSL within three business days of receiving the results. Mailed notices post-marked within three business days of receiving the results will be considered "on time."
- New Jersey requires these results to be reported on the Noncompliance Lead and Copper Reporting Form (BWSE 16) to determine if additional follow-up sampling or measures are necessary.

Lead Service Line Sampling Methods (141.86(b)(3))

FROM THE BUILDING TAP WHICH IS CLOSEST TO THE PORTION OF THE LSL (i.e., the first tap in the building). Flush the estimated volume of water between the LSL and the sample tap. EPA recommends selecting the pipe diameter that is one size larger than the actual pipe size, since pipe material thickness can vary, affecting the interior diameter and the actual volume of water. The system can also estimate the volume by measuring the length and diameter of piping from the tap to the LSL, and flush into a graduated beaker or cylinder to ensure that the system has flushed the correct volume, then, collect LSL sample for analysis.

IF METERS ARE LOCATED OUTSIDE OF THE BUILDING (OR IN UNMETERED AREAS) SERVICE LINE TAPS MAY ALREADY EXIST. Prior to sampling, water should be ran to flush the pipe that connects the tap and the LSL. If no tap exists, but the LSL can be made accessible, a tap constructed of lead-free materials can be installed directly into the LSL for sample collection purposes. However, because installation of a tap directly into the LSL could induce additional corrosion activity, and is an expensive process, this option is not recommended when there are no existing service line taps.

IF THE BUILDING IS A SINGLE FAMILY HOME, MAY ALLOW WATER TO FLUSH UNTIL SIGNIFICANT CHANGE IN TEMPERATURE. A tap sample may be collected by opening the tap and running the water at a normal flow rate. Keep a hand or finger under the flowing water. Once a change in water temperature is detected (after a few minutes), a 1-liter sample must be collected by filling the sample bottle to the appropriate level and then capping.

Reporting Requirements

- Written documentation of the material evaluation conducted and the number of LSL in the distribution system.
- Documentation must include an identification of the portion(s) owned by the system and portion(s) owned by the customer.
- Annually, complete the NJDEP LSL Reporting Form documenting that 7% of the LSLs have been replaced. The form is available at <http://www.nj.gov/dep/watersupply/dws-sampreg.html>.

References

AWWA – Communicating About Lead Service Lines: A Guide for systems Addressing Service Line Repair and Replacement., <https://www.awwa.org/portals/0/files/resources/publicaffairs/pdfs/finaleadserviceincommguide.pdf>

AWWA - Strategies to obtain customer acceptance of complete lead service line replacement., <https://www.awwa.org/Portals/0/files/legreg/documents/StrategiesforLSLs.pdf>

Code of Federal Regulations, Title 40 Protection of Environment, 141.84 Lead Service Line Replacements., p. 492 – 494., <https://www.law.cornell.edu/cfr/text/40/141.84>

EPA – Notification and Reporting Requirements for Partial Lead Service Line Replacement under the Lead and Copper Rule, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=901U0200.txt>

LSLR Collaborative Communications Guide Final, <http://www.lslr-collaborative.org/>

For further assistance, contact the Bureau of Water System Engineering at 609-292-2957 or watersupply@dep.nj.gov