Lead Service Lines and LCR On-line Document Submittals

Presented by: Dustin Rhodes, P.E.
Lead & Copper Team Leader
Public Water Supply Section
July 25, 2019
Overview

• Lead Service Line (LSL) definition and clarification
• Lead pipe and lead goosenecks/pigtails
• Lead and Copper On-line Records Update
  • Overview of on-line records
  • Changes made to on-line forms
What is a Lead Service Line (LSL)?

• A service line is a segment of pipe that connects the water main (typically located in the street) to a building or home’s plumbing.
• When this segment of pipe is made of lead, it is called a Lead Service Line (LSL).
What is a lead gooseneck/pigtail?

• A segment of lead pipe that connects the service line to the water main
**Lead Service Line (LSL) Clarification**

- A lead gooseneck is NOT a Lead Service Line (LSL)
- The presence of a lead gooseneck/pigtail when the service line itself is constructed of non-lead materials, DOES NOT constitute a Lead Service Line (LSL) under the current Lead and Copper Rule.

**Note: The revised/new Lead and Copper Rule may change the definition**
Partial Lead Service Line

• One portion of the lead service line was replaced with non-lead material (utility-owned portion or customer-owned portion)
• Can increase lead levels in drinking water
• Not a recommended practice
15A NCAC 18C Section .1507 [§141.86(a)(8)]

• A water system whose distribution system contains Lead Service Lines (LSLs) must collect HALF of its samples each monitoring period from those sites.

• If the water system cannot identify enough sites with Lead Service Lines (LSLs), the system must sample from all KNOWN sites with LSLs.
15A NCAC 18C Section .1507 [§141.86(b)(3)]

- Samples collected from a site served by a Lead Service Line (LSL) must also:
  - Be 1-Liter in volume
  - Be sampled after a stagnation period of at least 6 hours
- A sample collected from a site served by a Lead Service Line (LSL) requires a different sampling procedure
- Sample must be collected in 1 of the following 3 ways:
  - Single-Family Residence site – At cold kitchen/bathroom tap, allow water to run until there is a significant change in temperature
  - Calculate the estimated volume of water between the kitchen/bathroom tap and the LSL. This volume shall be calculated based on the interior diameter and estimated length of pipe/plumbing between the tap and LSL. Flush the calculated volume, and then collect the sample
  - Tap directly into the LSL and collect a sample (NOT recommended unless a sample tap already exists)
Lead and Copper Rule Refresher and Records Update

• **October 25, 2016 letter** provided to all water systems currently regulated by the Lead & Copper Rule (LCR) requesting systems to update their LCR records

• On **May 17, 2019 a follow-up letter** was sent to water systems with incomplete records. Water systems who indicated some form of lead piping in their system were also asked to clarify their records.
Lead and Copper Rule Refresher and Records Update

Five (5) items required from the LCR Records Update:

Three (3) Lead & Copper forms available online via an online invitation code specific to each system:
- Construction Materials Report
- Sampling Pool Siting Plan – Site Selection Process
- Sampling Pool Details

Two (2) Lead & Copper documents should be provided by mail or email to the Lead & Copper Rule Manager:
- Readable map, sketch, or schematic of distribution system with Sampling Pool locations denoted
- Copy of sampling instructions provided to homeowners for collection of lead & copper tap samples
Sampling Pool Suggestions

With the national attention on lead in drinking water, and the need for transparency, we recommend that you post your Sampling Pool locations, Site Map, and sampling results on your system’s website. Additionally, should a school or daycare meet eligible Tier criteria (may be a Tier 2), we recommend that you consider adding these types of sites to your Sampling Pool. Guidance on sampling schools is also available on our website.

Lead and Copper Rule Managers

If you need assistance or have any questions concerning this matter, please feel free to contact your system’s Rule Manager:

- Jimmy Coor at (919) 707-9072 or by e-mail at Jimmy.Coor@ncdeq.gov (Rule Manager for water systems served by the Asheboro, Fayetteville, Raleigh or Washington Regional Offices)
- Dustin Rhodes at (919) 707-9074 or by e-mail at Dustin.Rhodes@ncdeq.gov (Rule Manager for water systems served by the Mooresville, Wilmington, or Winston-Salem Regional Offices)

Please be sure to identify your water system’s name and number on all correspondence.

Sincerely,

[Signature]

Linda F. Raynor
Compliance Services Branch Head
Public Water Supply Section
Division of Water Resources, NCDEQ

Enclosures:

- Table - “Refresher” Information and Additional LCR Resources
- Lead and Copper Guidelines, Sampling Pool Site Selection, Sampling Procedures and Follow-up Actions
- Construction Materials Report Form
- Lead and Copper Sample Siting Plan - Site Selection Process Form
- Lead and Copper Sampling Pool - Details Spreadsheet
- Example – Lead and Copper Sampling Pool - Details Spreadsheet
- Request for Source Water and/or Treatment Changes Under the Lead and Copper Rule (LCR) Form
WATER SYSTEM NUMBER (NUMBERS) 0, PRINCIPLE#region_00, INK COUNTY
'ThELEPHONE_NAME_CONNECTE D' 'T H E L E P H O N E _ N U M B E R _ T W O _ T I M E S
'TH E L E P H O N E _ N U M B E R _ O N _ E _ T I M E

Lead and Copper Records Update
Request for Clarification of Lead Service Lines (LSL) and Lead Pipe Inventory Action Required

Our service Lead and Copper Rule Retractor and Records Update letter and packet of information sent in October 2019, included a request for information about the lead and copper systems installed in the Water System. We are requesting you to send Lead and Copper Rule Management a hardcopy of a readable map, a sketch of the schematics of your distribution system, the sampling protocols identified, and a copy of the instructions to your system’s provider to have them conduct a lead and copper test.

The testing method to follow up your records prior to submitting, specifically, in regards to the presence of Lead Service Lines (LSLs) and lead piping in your water distribution system and customer home plumbing. We encourage you to provide updated information as follows:

- Request system information on the presence of Lead Service Lines (LSLs) or Lead Pipe on the construction materials used in the distribution system and customer home plumbing.
- Request system information on the presence of Lead Service Lines (LSLs) or Lead Pipe on the Sampling Pool Details form.
- Request system information on the construction use of Lead Service Lines (LSLs) or Lead Pipe on the Construction Materials Use Form.

As such, please review the Lead Information Regarding Lead Service Lines on the next page and then update your Construction Material Use Form, Sampling Pool Details form, Site Selection Process, and Sampling Pool Details form online, and submit your updated data and sampling activities to us.

To access our online Lead and Copper records, go to 100percentwater.org/CooperE197 and enter your Online Registration Code or Ignition Code. Please update your registration information on the next page with the Construction Materials Use Form.

Not all changes have been made to the cut of item to simplify the instruction, the number of Lead Service Lines online code, and the instructions as follows:

- **Construction Materials Use Form** - Instructions were modified to clarify that only those boxes needed for the area distribution system, service lines, and customer plumbing.
- **Sampling Pool Details Form** - A new section on the form adds your system’s contact to provide you with the exhibits and contact information for the number of Lead Service Lines. The system contact is the entity that distributes the distribution system. The system contact is the entity that distributes the distribution system. You can use this contact to update the form to include your name, the number of Lead Service Lines, and other changes to the form.
- **Sampling Pool Details Form** - Please review the form for accuracy. Note that we have instructions which of the data bar Lead Service Lines on other water distribution systems are the customer side of the water meter.

Important Information Regarding Lead Service Lines:

The purpose of this information is to help your water system understand the definition of a lead service line, identify lead service line locations in your distribution systems, have them conduct sampling from those locations, and understand that lead service line locations may have different sampling protocols. We expect that this effort will help your water system to prepare for potential new requirements in the upcoming revised Lead and Copper Rule.

- Lead Service Line (LSL) - A lead service line is a segment of pipe that connects the water main to a building’s plumbing. When the segment of pipe is made of lead, it is called a Lead Service Line (LSL). NOTE: The segment of pipe must be made of lead pipe in order to be identified as a lead service line. The presence of a lead service line is revealed when the service line is known to be constructed of lead or lead materials. DOES NOT constitute a lead service line.
- Lead Cropped and Fitted - A segment of lead pipe that connects the service line to the water main. The portion of pipe resembles the corrosion of a pipe made of copper, hence the name.

Systems with Lead Service Lines (LSL) shall be tested during those days during monitoring periods.

An example system’s lead service line shall be located at the source, such as a sampling monitoring point, that contains a lead service line. A water system shall conduct no more than one sampling test in each lead service line. The sampling system must be sampled at least once a year from all lead service lines. Reference: Reference 154 NCAC 19B Section 1007 (141.00B)(3)

Sampling procedures for samples collected from systems with Lead Service Lines (LSL)

Sample collection is an operation required by the lead service line requires a different sampling procedure than the standard lead. Reference: Reference 154 NCAC 19B Section 1007 (141.00B)(3).

An example system collected in a lead service line shall be tested once in the source. The lead service line in the lead service line is located at the source, such as a sampling monitoring point, that contains a lead service line. The sampling system must be sampled at least once a year from all lead service lines. Reference: Reference 154 NCAC 19B Section 1007 (141.00B)(3).

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Demonstration

Lead & Copper Data Acquisition

- The website on the letter (http://www.ncwater.org/index.php?page=679) will bring you to this page
- Enter the online invitation code to access the 3 online LCR Records Update forms specifically for your water system
Three (3) Online LCR Forms

1. After inputting the invitation code, you will have the three (3) online LCR forms available to you:
   - Construction Materials Report
   - Sampling Pool Siting Plan – Site Selection Process
   - Sampling Pool Details

2. If you manage multiple water systems, click “Enter Different Invitation Code” to enter another code to access the forms of another water system.
1. All online forms are equipped with a “Return to Summary (data not saved)” button. Please use this button to return to the previous page rather than using the browser’s back button.

2. General contact information of the water system has automatically been populated with information in our database. Please verify that this information is accurate and notify us of any changes.
1. Select the plumbing materials from the provided list that are present in your water system’s distribution system AND household plumbing.

2. Include contact information of the person who completed the form.
Sampling Pool Siting Plan – Site Selection Process – Part 1

- 4 questions regarding lead in distribution system and household plumbing:
  - Lead pipe, piping with lead-lined interior, or lead joint pipe
  - Lead Service Line (LSL)
  - Lead goosenecks/pigtails
  - Connections with lead solder
- New boxes added to provide estimates for Lead Service Lines and lead goosenecks/pigtails

Lead & Copper Data Acquisition

Sampling Pool Siting Plan - Site Selection Process

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Construction Materials</th>
<th>Location (required if &quot;Yes&quot; is selected)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>System's Side (source to customer's meter)</td>
</tr>
<tr>
<td>Yes</td>
<td>Lead pipe, piping with lead-lined interior, or lead joint pipe in the distribution mains</td>
<td>✔</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Lead service lines (water main to meter and/or meter to customer's building)</td>
<td>✔</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Lead goosenecks/pigtails</td>
<td>❌</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Connections with lead solder</td>
<td>❌</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sampling Pool Siting Plan – Site Selection Process – Part 2

1. Add comments about Lead Services Lines and lead goosenecks/pigtails.
2. Select Yes/No to indicate all Tier levels served by the water system.
3. Indicate what methods were used to determine the Tier Designations of your lead/copper sites.
4. Indicate whether all sites of the highest priority Tier level were added to the Sampling Pool before adding sites of a lower Tier level.
5. Indicate if any changes have been made to the Sampling Pool since previous monitoring periods.
Sampling Pool Details – Part 1

- Include general information of the water system such as:
  - Type (Community Water System or Non-Transient Non-Community)
  - Population
  - # of Samples Required for Standard Monitoring
  - Existing Corrosion Control Treatment (if any)
**Sampling Pool Details – Part 2**

- Enter each individual Sampling Pool Location by clicking the “Enter New Sampling Pool Location” button.
Sampling Pool Details – Part 3

After clicking the “Enter Sampling Pool Details” button, another screen will appear allowing you to enter information for that specific Sample Site.

Once you are done entering information, click “Save Location”.

Repeat this process for all Sample Sites.

Note: LSL = Lead Service Line
Questions?

• **Dustin Rhodes** – Lead & Copper Team Leader
  • 919-707-9082
  • Dustin.Rhodes@ncdenr.gov

• **Jimmy Coor** – Lead & Copper Rule Manager (Asheville, Fayetteville, Raleigh, and Washington Regions)
  • 919-707-9072
  • Jimmy.Coor@ncdenr.gov

• **Bryan Groza** – Lead & Copper Rule Manager (Mooresville, Wilmington, and Winston-Salem Regions)
  • 919-707-9090
  • Bryan.Groza@ncdenr.gov

*Department of Environmental Quality*