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Frequently Asked Questions About EPA's Proposed Lead and Copper Rule Revisions Service Line Inventory Requirements

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EPA and DWS adopted revisions to the Lead and Copper Rule that include a requirement for public water systems to conduct inventories of service lines and to identify service line material types. The intent of the service line inventory requirement is to identify those service lines made of lead so that they can be removed and replaced.

What are the basic requirements for the service line inventory?

Public water systems must conduct an inventory of all service lines, on both the water system side and the homeowner side of the meter, and to submit the results to OHA–Drinking Water Services (DWS) by October 16, 2024. Service line materials must, at a minimum, be classified as one of the following:

- **Lead**, where the service line is made of lead;
- **Non-lead**, where there is evidence to support this determination;
- **Galvanized requiring replacement**, where a galvanized service line is downstream of a current or former lead service line; or
- **Lead status unknown**, where there is no documentation or evidence to classify the material type.

Which public water systems (PWSs) need a service line inventory?

The service line inventory and annual update applies to all Community (C) and Non-Transient Non-Community (NTNC) water systems. Transient Non-Community (TNC) and Oregon Very Small (OVS) PWSs are not required to provide inventories.

Any service line where there is no documented evidence supporting material classification is considered a *lead status unknown* service line.

If our system previously certified that there was no lead in the distribution system, is an inventory still required?

While previous investigations of service lines are valuable, every system needs to conduct an inventory of service lines under the rule and submit the results by the deadline of October 16, 2024. Previous certification allowed methods not evidence-based and did not include privately-owned portions of the services lines.

Do I have to inventory every connection from a water main (including irrigation and fire suppression lines)?

Yes, every active and non-active line must be considered for the inventory. Non-active lines can include new housing plots and uninhabited homes. The type of service connection can be documented on the spreadsheet in column H. Irrigation and fire-suppression lines are considered non-potable. Non-potable lines are not considered in the number of service connections, however, for a water system.

Do I have to identify the material type of every service line by October 16, 2024?

A system can use all available documentation to categorize service lines and consider those without documentation as *lead status unknown* in the initial inventory. However, unknowns must eventually be categorized. A public notice must be sent to customers of those service lines designated as lead, GRR, or unknown 30 days after inventory submission then annually after that or until the service line has been replaced or determined to be non-lead. The water system must supply filter pitchers to the customer if the service line is disturbed or in the event of a partial or full lead service line replacement.

What if lead pigtails or gooseneck connections are identified?

Since 1985, if a repair or inspection is conducted and a lead pigtail or gooseneck is discovered, the PWS is required to replace it at the time of repair. These types of connectors are not considered lead service lines under the EPA Lead and Copper Rule Revisions.

What if the service line branches on the customer property?

A line that branches after the meter and before multiple structures is considered one line for the purposes of counting service lines. If a customer-owned portion of the service line splits, each branch must be included in the inventory up to each building inlet.

Statistical Guidance for Evaluating Unknown Service Lines

April 2024

Oregon public water systems (PWSs) are required to develop a complete inventory of all service lines to comply with the 2021 Revised Lead and Copper Rule. This includes both public and private portions of the service lines.

In this document, *known* service lines are defined as a service line where the pipe materials are categorized using records or other means. *Unknown* service lines are defined as line of unknown material with no documented material history.

The statistical approach provides a method to complete a service line inventory, eliminating the need to inspect every unknown service line. The water system's statistical approach will need to demonstrate a minimum 95 percent level of statistical confidence. A key factor in the success of this strategy is the use of a randomly generated list of unknown service lines to be physically inspected.

Identification process

Before using the statistical approach to identify unknown service lines, the PWS must first use other approved methodologies (records review, including post-1985 construction and larger pipe diameters, and optionally, customer data) to categorize service lines. If no lead service lines are identified using those methodologies, a statistical approach may be used. Methodologies for identifying service line materials can be found in OAR 333-061-0036 (10)(h).

Note: If ANY service line is found to be a lead service line, then the statistical method for determining unknowns may not be able to be used. Contact your regulator for further guidance.

If one or more of the original randomly selected sites cannot be physically inspected, the PWS must replace it by randomly generating a new site using the process described in Appendix B.

Step 5: Record results of the physical inspection process
In the dropdown list on the DWS spreadsheet, enter the service line category and material observed at each point. The four service line category types are: lead, non-lead, galvanized requiring replacement and unknown. The OHA-DWS spreadsheet has further subclassification categories of material types that is recommended the water system utilize.

Step 6: Enter results for unknown service lines

- For the unknown lines that are inspected for the statistical sampling, record the water system material identification method (physical). It is recommended the water system list the exact line material type in the inventory spreadsheet.
- For the unknowns not needing to be inspected, record the material identification method as *statistical* and service line material as *non-lead/not specified.*

Step 7: Retain identification records
Create, compile, and retain documentation of all service line identification efforts. DWS may ask PWSs to produce or submit these records.

Appendix B
Generating a uniformly random set of service lines for inspection

You can use a spreadsheet (such as Microsoft Excel or Google Sheets) or DWS-supplied spreadsheet to generate a uniformly random set of locations of unknown service lines for inspection using the following Microsoft Excel steps (the same formulas and method work for Google Sheets):

1. In the first column of a spreadsheet, list every unique service line of unknown material. They can be listed by address, service line ID, or other identification method.

2. In the second column, generate uniformly random numbers, so that each service line is associated with a randomly generated number. Follow these steps:

    a. Enter the formula =RAND() into the second column next to each location and press Enter. This generates a number between 0 and 1 for each service line.
    b. Select the second column (the column with the random values) and copy it, using the spreadsheet's Copy feature.
    c. With the second column still selected, use the Paste Special option to Paste Values Only into that same column. This will ensure your random numbers remain static.
    d. Use the Sort feature to list the randomly generated numbers from lowest to highest. If the Sort Warning appears, select Expand the Selection, then Sort.
3. Select only the top N service lines, where N is the number requiring inspection. For example, if you need to inspect 20 service lines, select the first 20 service lines on the list. These are the 20 uniformly random service lines to be inspected.

See the brief online tutorial for generating random samples in Microsoft Excel.