

LEADED PIPES ENCOUNTERED DURING INFRASTRUCTURE WORK

Purpose:

This guidance document outlines the actions permittees and water systems must follow when leaded pipes are encountered during infrastructure work. For the purposes of this guidance document, “leaded pipe” shall be defined as lead service lines, galvanized requiring replacement service lines, and lead connectors. Connectors are also known as ‘goosenecks’ and ‘pigtails.’

Background:

The federal Lead & Copper Rule Revisions (LCRR) require all community and non-transient non-community public water systems to develop an initial service line inventory by October 16, 2024. All water systems with one or more lead, galvanized requiring replacement (GRR), or lead status unknown service lines in their distribution system inventory must also submit a lead service line replacement (LSLR) plan by October 16, 2024.

Water systems (and permittees) must replace any water system-owned lead connector when encountered during planned or unplanned water system infrastructure work. Water systems (and permittees) must offer to replace any customer-owned lead connector when encountered during planned or unplanned water system infrastructure work.

Any water system (and permittee) that plans to replace leaded or unknown material service line in coordination with planned infrastructure work must provide advance notice.

For techniques to confirm the service line and connector material, reference section 5.1 of the [EPA’s Guidance for Developing and Maintaining a Service Line Inventory](#). When it is confirmed that a leaded pipe is to be replaced, the permittee shall adhere to the procedures and requirements of [40 CFR 141.84](#).

Also, the permittee shall contact the Drinking Water & Groundwater Protection Division (DWGPD), hereinafter ‘Division,’ of the Vermont Department of Environmental Conservation (DEC) for current guidance on updating the Water System’s service line inventory and creating a lead service line replacement (LSLR) plan.

Contents:

1. Actions to be taken when leaded pipe is encountered during infrastructure work.
2. Advisory flowchart of actions.
3. Service Line Notification Form with instructions, education, and certification.

Actions to be taken when leaded pipe is encountered during infrastructure work:

1. Permittee must notify the water system within 24 hours of discovery, or prior to final closure to the site, whichever comes first.
OR
Permittee must ensure agreements are in place with the water system to remove leaded lines as encountered.
2. Water system must consult its LSLR plan if approved or submit a LSLR plan to the DWGPD for approval within 10 days.
3. Water system must offer to replace the customer-owned portion of the leaded service line at the same time as the system-owned portion of the service line.
4. Water system must notify customers and non-owner residents of the following:
 - A. A leaded service line provides water to their property and information about the health effects of lead. Use the Division's [Service Line Notification template and certification form](#).
 - B. A service line replacement is scheduled and the date of the replacement.
 - C. The procedure for flushing premise plumbing ([Division's LSLR Plan Guidance](#) Section 2.5)
5. Water system must follow the risk mitigation procedures of 40 CFR 141.85(f)(2) which includes providing persons served by the water system at the connection with:
 - A. Pitcher filter or point-of-use device with a 6-month supply of filter cartridges to each property impacted by the replacement project. Water systems must also provide instructions on how to use the pitcher filter or point-of-use device.
 - B. Information about the potential for elevated lead levels in drinking water as a result of the disturbance.
 - C. [Public education materials](#).
6. If a partial service line replacement is planned, possibly due to refusal of property owner, the permittee or water system must contact the Division before proceeding.
7. Permittee or water system must provide notice to customers within 24 hours of completion of work. The notice must include:
 - A. Explaining that consumers may experience a temporary increase of lead levels in their drinking water due to the replacement.
 - B. Information about the health effects of lead.
 - C. Actions consumers can take to minimize their exposure to lead in drinking water.
8. Water system must offer to sample and analyze the property's water for lead within 3-6 months after service line replacement.
9. Permittee must record and provide to the water system:
 - A. E-911 addresses of service lines and connectors replaced.
 - B. Service line and connector materials encountered.
 - C. Materials installed as replacement service line and/or connector.
10. Water system must update its inventory with information received from permittee.
11. Water system must submit the updated inventory to the Division through the ANR Online form in accordance with its tap sampling monitoring period schedule. The update inventory must be submitted within 30 days of the end of each tap sampling monitoring period and made publicly accessible.

LEGEND

DWGPD = Drinking Water Groundwater Protection Division
LSLR = Lead Service Line Replacement

Leaded Pipes Encountered During Infrastructure Work

Planned Project

Unplanned Project

Permittee must notify the DWGPD and Water System within 24 hours of discovery of leaded pipe or prior to closure of the site.

Permittee ensures that agreements are in place with the water system to remove leaded pipes as encountered following applicable regulations.

Contractor/discoveree must notify the water system of the materials encountered and E-911 address of the service line and provide to water system.

Water system must consult their LSLR plan if available, or submit a LSLR plan to DWGPD within 10 business days.

Permittee must record the materials encountered and E-911 address of the service line and provide to water system.

Water system must consult their LSLR plan if available, or submit a LSLR plan to DWGPD within 10 days.

Water system must offer to replace the customer portion of the leaded service line at the same time as the system-owned portion of the service line.

Water system must notify customer and non-owner residents the following:

1. A leaded service line provides water to their property and information about the health effects of lead.
2. A service line replacement is scheduled and the date of the replacement.
3. The procedure for flushing premise plumbing.

Water system must follow risk mitigation procedures

1. Providing a pitcher filter or point-of-use device with a 6-month supply of filter cartridges to each affected property with the proper instructions of how to use.
2. Information about the potential for elevated lead levels in drinking water as a result of the disturbance.
3. Public education materials.

Full replacement of service line. (both utility and customer side)

Partial replacement of service line. (only the utility side was replaced)

Permittee/Water System must contact DWGPD before proceeding with replacement.

Permittee/Water System must provide notice to customer(s) within 24 hours of completion of work including the following:

1. Information about the potential for elevated lead levels in drinking water as a result of the replacement.
2. Information about the health effects of lead.
3. Actions consumers can take to minimize their exposure to lead in drinking water.

Permittee must record and provide to the Water System:

1. E-911 addresses of service lines and connectors replaced.
2. Service line and connector materials encountered.
3. Materials installed as replacement line and/or connector.

Water system must offer post-replacement water sampling for lead within 3-6 months.

Water system must:

1. Update the service line inventory.
2. Submit the inventory via ANR Online in accordance with its tap sampling period schedule, within 30 days of the end of each tap sampling monitoring period.
3. Make the inventory publicly accessible.

INSTRUCTIONS FOR NOTIFICATION OF KNOWN OR POTENTIAL SERVICE LINE CONTAINING LEAD

The federal Lead and Copper Rule (Revisions) (40 CFR 141, Subpart I) requires all water systems with lead, galvanized requiring replacement, or lead status unknown service lines in their inventory to inform all persons served by the water system at the service connection with a lead, galvanized requiring replacement, or lead status unknown service line.

A water system must provide initial notification within 30 days of completing the service line inventory and repeat the notification on an annual basis until the entire service connection is no longer lead, galvanized requiring replacement, nor lead status unknown. For new customers, water systems must also provide notice at the time of service initiation.

The notice must include a statement describing the service line's material composition, an explanation of the health effects of lead, steps persons at the service connection can take to reduce exposure to lead in drinking water, and information about opportunities for service line replacement or service line material verification.

The following template includes public health language and definitions. On the template, the water system must fill in: water system name, water system phone number, website, water system identification number (WSID), number of service line addresses notified, delivery methods, and dates. When applicable, additional information may be provided in the space at the bottom of the notification's first page. For example, a direct phone number to schedule an inventory inspection.

Community water systems must provide education to users by direct delivery, which includes mailing letters, hand-delivering notices, or leaving notices in living units. Where there are multiple owners or rental tenants, the water system must make every attempt to provide education to them in addition to the primary owner.

Non-Transient Non-Community (NTNC) water systems must reach all users via posting near taps (where practical), handouts in employee mailboxes, posting on bulletin boards in hallways and breakrooms, or similar means. NTNC schools **must** provide information to staff, students, and parents/guardians.

The **Certification Form** follows the templates, documenting who distributed the education, when, and how. Mail, fax, or email the Certification Form, with a copy of the education, to the Drinking Water and Groundwater Protection Division. Certification is due 10 calendar days after delivering the education.

Email may be used as a notification method **only** if the water system has current email addresses that are routinely used for communication. Emails must be sent with a clear subject line about lead in drinking water, and with a return receipt setting if possible. Users without email addresses or whose email addresses generate errors must be contacted by the water system by other means, such as a letter. The notice information must be included as text in the email. An attachment or web link may be provided but must not take the place of text within the email body. A copy of the email notice must be submitted to the Division along with the Certification Form, similar to the process for paper letters.

*To preserve, enhance, restore, and conserve Vermont's natural resources, and protect human health,
for the benefit of this and future generations.*

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER SERVICE LINE

The _____ water system has determined your house/building receives drinking water from a:

- Confirmed lead service line
- Galvanized requiring replacement service line
- Lead status unknown service line

Lead can cause serious health problems, especially for pregnant people and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

What is a service line?

A service line is the pipe connecting the water main to the interior plumbing in a building. The service line may be wholly owned by the water system or property owner, or ownership may be split between the water system and the property owner.

If a property owner replaces their portion of the lead service line, then the water system is required to replace the system-owned portion of the lead service line when notified by the property owner of the replacement.

Call the water system at _____ or visit our website at _____ for information about:

- Notifying the water system that you are replacing your portion of a service line
- Opportunities to replace lead service lines and galvanized requiring replacement lines
- Programs that provide financing solutions to assist property owners with replacement of their portion of a lead service line
- Opportunities to verify the material of a lead status unknown service line, such as scheduling a service line visual inspection

Other information from your water system:

Health Effects of Lead

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in intelligence and attention span. Lead exposure can cause new learning and behavior problems or exacerbate existing learning and behavior problems. The children of pregnant people who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

Sources of Lead

Lead is rarely found in a water system's surface or groundwater source but may enter drinking water if plumbing materials, such as solder or fixtures, including some made of chrome or brass, contain lead and corrode. Homes built before 1988 are more likely to have plumbing, solder, and fixtures that contain lead. The U.S. Environmental Protection Agency estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water.

Steps You Can Take to Reduce Your Exposure to Lead in Your Drinking Water

- **Run your water to flush out lead.** Run water for 15-30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
- **Use cold water for cooking and preparing baby formula.** Lead dissolves more easily in hot water.
- **Do not boil water to remove lead.** Boiling water will not reduce lead.
- **Look for alternative sources or water treatment.** You may want to consider purchasing bottled water or a water filter. The Food & Drug Administration set a limit for lead in bottled water of 5 parts per billion. Not all water filters remove lead. Check the product for independent testing from a group such as NSF International (NSF.org, 800-673-8010) that verifies the specific filter model removes lead.
- **Test your water for lead.** Call us at the phone number below to find out how to get your water tested for lead by a certified laboratory. Results may differ between first-draw water and water collected after the tap has been flushed.
- **Identify and replace plumbing fixtures that contain lead.** Over the last few decades, several state and federal laws have reduced the amount of lead allowed in plumbing solder and fixtures.

For more information on reducing lead exposure and the health effects of lead, visit the U.S. EPA website www.epa.gov/lead, call the National Lead Information Center at 800-424-5323, or speak with your health care provider.

For information about the Revised Lead and Copper Rule, Lead Service Line Inventory, please contact: _____ at _____ or _____

Date distributed: _____



ENVIRONMENTAL CONSERVATION

Drinking Water & Groundwater Protection Division

FORM

**SERVICE LINE NOTIFICATION
DELIVERY CERTIFICATION**

Water System Name: _____

WSID #: _____ Number of Service Line Addresses Notified: _____

Within 30 days of being notified that the water system’s service line inventory has been reviewed by DEC and the inventory includes a lead, galvanized requiring replacement, or unknown material service line, the water system must notify affected users. The notification must include the information on Pages 2 and 3 of this document.

What to Submit to the DEC: within 10 days of delivering the notification, the water system must submit a copy of the notification documents and this certification form (pages 2-4 of this document) to the Drinking Water & Groundwater Protection Division.

NTNC systems, other than schools and childcares, may reach all users via posting. Schools and childcare facilities that are also NTNC water systems must submit, by email or US Mail, notification documents to all parents and staff at the facility. Community systems need to deliver to all users by other means and additional efforts to reach sensitive populations as explained on the instruction page.

Delivery Method(s) and Date(s):

- Hand or Direct Delivery on _____
- Notification via US Mail posted _____
- Television or Radio, aired on _____
- Ad in local newspaper, enclose a copy, published on _____
- Email (see special instructions) on _____
- Notices sent to parents & staff via email or US mail (NTNC schools only) on _____
- Posting in a conspicuous location (primarily NTNC systems; describe below) on _____
- Other (describe) _____ on _____

I certify, as the responsible person (or authorized representative) of the water system indicated above, the notification has been provided to all customers with leaded or potentially leaded lines, in accordance with the delivery, content and deadlines of 40 CFR 141.84 & 141.85.

Certification by the Administrative Contact or the Water System Operator:

Print Name: _____ Title: _____

Signature: _____ Date: _____

Email, Mail, or Fax this form and the notification documents to:

Attn: Infrastructure Sustainability Section
 ANR.SLI@Vermont.gov
 Drinking Water and Groundwater Protection Division
 1 National Life Dr -- Davis 4
 Montpelier VT 05620-3521
 Fax: 1-802-828-1541