



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

GUIDANCE AND FREQUENTLY ASKED QUESTIONS

**LEAD AND COPPER RULE
REVISIONS /
IMPROVEMENTS**

APRIL 2025

LEAD AND COPPER RULES

Abbreviations / Key Terms

AL – Action Level

ALE – Action Level Exceedance

BSDW – Bureau of Safe Drinking Water

CWS – Community Water System

GRR – Galvanized Requiring Replacement

LSL – Lead Service Line

LCR – Lead and Copper Rule

LCRR – Lead and Copper Rule Revisions

LCRI – Lead and Copper Improvements

NTNC – Non-Transient Non-Community Water Systems

PN – Public Notification

PWS – Public Water System

SL – Service Line

U.S. EPA – United States Environmental Protection Agency



DISCLAIMER: This document is intended to provide answers to questions that may arise regarding developing an initial service line inventory in community and non-transient non-community water systems and the other requirements that went into effect on October 16, 2024, for the LCRR and the requirements for the LCRI that will go into effect on November 1, 2027. This document is non-regulatory and for guidance only and does not cover every new requirement under the LCRI. Nothing in this document supersedes any statutory or regulatory requirements or permit provisions for public water systems (PWS).

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OVERVIEW

The United States Environmental Protection Agency (U.S. EPA) issued revisions to the federal Lead and Copper Rule (LCR) on January 15, 2021. On October 8, 2024, the U.S. EPA finalized the Lead and Copper Rule Improvements (LCRI). The LCRI pushed back and replaced many of the requirements of the LCRR except for three requirements. The following guidance will review the requirements of the LCRR that went into effect on October 16, 2024⁵, and the new requirements of the LCRI that will go into effect on November 1, 2027.



REQUIREMENTS OF THE LCRR



1. What requirements of the LCRR that went into effect on October 16, 2024?

- The initial service line inventory and public accessibility of inventory (40 CFR 141.84(a));
- Notification of service line material 30 days after inventory and submission of certification (40 CFR 141.85(e)); and
- Tier 1 public notice (PN) of a lead action level exceedance (ALE) (40 CFR 141.201(a)(3)(vi) and 141.202(a)(10)).

2. When is the initial service line inventory due and how do I submit it?

The initial inventory was due on October 16, 2024. If our inventory has not been submitted yet, please submit the inventory via email to ndep.lead@ndep.nv.gov and cehleringer@ndep.nv.gov. If the file is too large to submit via email or it must be submitted via mail, please contact the emails listed above for more information.

- If the system is under Northern Nevada Public Health (NNPH), please submit the inventory to Latricia Lord at LLord@nnph.org.

3. When is the service line inventory due for CWS or NTNC water systems that are permitted after October 16, 2024?

If your system is a newly permitted CWS or NTNC, BSDW will work with you to determine the deadline for the service line inventory.

4. What do I do if I have a lead action level exceedance (ALE) starting October 16, 2024?

- Starting October 16, 2024, a lead ALE will require a Tier 1 public notice (PN). The PN must be provided to all persons served by the water systems as soon as practicable, but no later than 24 hours after the system has learned of a lead ALE.
- Further guidance and PN templates are available on the NDEP and EPA websites.

5. What is required to be completed within 24 hours of learning of a lead ALE?

- A system is required to complete the following 3 items:
 - Initiate consultation with the State;
 - Issue Tier 1 PN to persons served by the water system; and
 - Provide a copy of the notice to the State and the EPA.
- State email: ndep.lead@ndep.nv.gov
- EPA email: LeadALE@ndep.nv.gov

6. Who is required to receive a notification of known or potential lead service lines and when are they supposed to be notified?

- Any customer serviced by a lead, GRR, or unknown service line, either on the system or customer owned side of the line, is required to be notified.
- The notification was required to be sent within 30 days of submitting the inventory and then annually until the line is no longer lead, GRR, or unknown

7. What information does the notification need to include?

- A statement about what the service line material is (lead, GRR, or unknown but may contain lead).
- An explanation of the health effects of lead as specified in the rule.
 - See LCRR for exact wording.
- Steps a person can take to reduce exposure to lead in drinking water.
- Additional content depending on the material type:
 - Lead: must include information about opportunities to replace LSLs as well as programs that provide financing solutions to replace the LSL.
 - GRR: must include information about opportunities to replace the line.
 - Unknown: must include information about opportunities to verify the material of the service line.
- Templates are available on the [EPA Lead and Copper Rule Implementation Tools](#) webpage.

8. How do we verify to the State that the notification was sent to customers?

- A certificate of delivery and a copy of the notice(s) are due to the State by July 1st annually until the system no longer has any lead, GRR, or unknown service lines.
- A template certificate of delivery can be found on the [NDEP/BSDW Lead and Copper](#) webpage.

REQUIREMENTS OF THE LCRI

9. What is due on November 1, 2027?

- Baseline service line inventory (40 CFR 141.84(a));
- Replacement plan (40 CFR 141.84(c)); and
- List of schools and licensed childcare facilities within the water system (40 CFR 141.92(b)).
 - More information regarding these requirements can be found in the following sections.

10. What is the new AL for lead?

10 ppb is the new AL for lead starting November 1, 2027.

11. What is the validation requirement of non-lead service lines?

- Systems must identify a validation pool of non-lead service lines and validate a number of these lines via exterior visual inspection at a minimum of two points.
- The number of validations depends on the size of the validation pool:

Size of Validation Pool	Number of Validations Required
<1,500	20% of validation pool
1,500 to 2,000	322
2,001 to 3,000	341
3,001 to 4,000	351
4,001 to 6,000	361
6,001 to 10,000	371
10,001 to 50,000	381
>50,000	384

11. What is the validation requirement of non-lead service lines? (cont.)

- Non-lead service lines that are excluded from the validation pool:
 - Non-lead lines that were identified via exterior visual inspection at a minimum of 2 points;
 - Non-lead lines that were identified using records that show that line was installed after the State lead ban date (10/1/1989); and
 - Previously replaced lead or GRR service lines.
- Validation sites must be randomly selected.
- Systems have 7 years from the compliance date of the LCRI to complete the validation requirement.



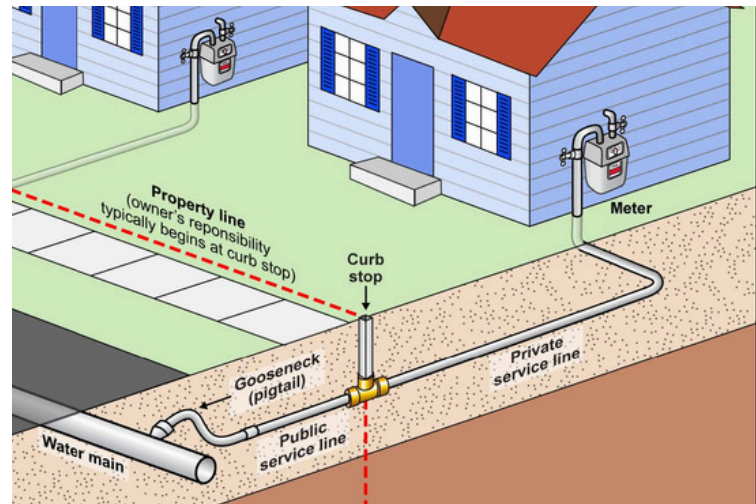
INITIAL AND BASELINE SERVICE LINE INVENTORY INFORMATION

12. What is the difference between the initial and baseline service line inventory?

- The initial service line inventory was due by October 16, 2024.
- The baseline service line inventory includes all of the information provided in the initial service line inventory, plus connector material. This inventory is due by **November 1, 2027**.
 - Connector material classifications can be found in question 15.

13. Do I need to submit an inventory on November 1, 2027, if my initial inventory already included connector information?

- Yes, the inventory will need to be submitted again on or before the LCRI compliance date. Please review the inventory to make sure that the connectors are classified properly (see question 15 for material classification list) before resubmitting.

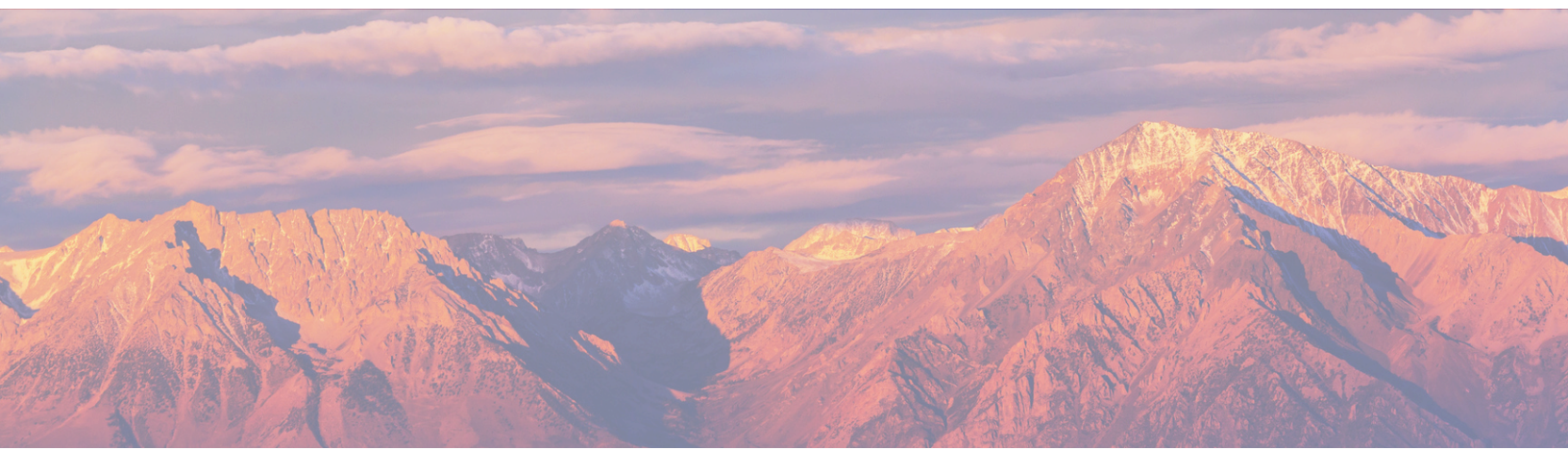


14. What are the four material classifications of service lines that must be identified in the initial and baseline service line inventory?

- Lead service lines.
- Non-lead service lines.
- Galvanized Steel Requiring Replacement (GRR).
- Lead status unknown.

15. What are the four material classifications of connectors that must be identified in the baseline inventory due November 1, 2027?

- Lead.
- Non-lead.
- Unknown.
- No connector present.



16. What is the regulatory history on lead free in Nevada?

- **June 19, 1986**: Congress enacted the Safe Drinking Water Act Amendment of 1986, which prohibited the use of pipe, solder, or flux in PWSs that is not “lead-free”, defined “lead-free”, and that plumbing must be “lead-free”.
 - “Lead-free” was defined as solders and flux may not contain more than 0.2 percent lead, and the pipes and pipe fitting may not contain more than 8.0 percent lead.
- **March 22, 1989**: Nevada public water system regulations require plumbing installed in water supplies to comply with the 1986 SDWA amendments for “lead-free” and updated compliance from the 1982 to the 1988 edition of the Uniform Plumbing Code (NAC 445.412).
- **June 26, 1989**: Nevada law approved to require updated requirements from the 1985 to the 1988 edition of the Uniform Plumbing Code for any construction, alteration or change in the use of a building (NRS 444.350).
- **October 1, 1989**: NRS 444.350 Uniform Plumbing Code law effective (NRS 218D.330).
- **January 4, 2014**: The Reduction of Lead in Drinking Water Act went into effect nationally. This amendment to the Safe Drinking Water Act introduced a new definition of “lead-free” in 40 CFR § 143.12. “Lead-free” means:
 - Not containing more than 0.2 percent lead when used with respect to solder and flux; and
 - Not more than a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.
- **December 22, 2014**: The Reduction of Lead in Drinking Water Act and the new definition of “lead-free” was adopted by the state of Nevada (NAC 445A.66085).

17. What is the date after which any construction is assumed to be “lead-free”?

- In the State of Nevada, any construction after **9/30/1989** was required by State law to not contain lead.
- Homes or other service connections with water lines installed after **9/30/1989** may be assumed to have no lead service lines unless the PWS is aware of installations that did not comply with State law.
- Determine if a local ordinance banned the use of lead in plumbing construction at an earlier date. Document the ordinance, building code, and this date may be used instead of the Nevada law ban of **10/01/1989**.

18. Do PWSs need to maintain records on lead solder?

- Lead solder alone does not qualify the line as a lead service line.
- It is still necessary for PWSs to document lead solder when records exist to identify the sampling pool (e.g., Lead Sample Plan, Tiering).

19. Will NDEP allow the water system to use “non-lead” designation for any pipe greater than 2” diameter?

Yes, pipes greater than 2 inches in diameter may be assumed non-lead regardless of construction year, unless the PWS is aware of pipes in their system that are greater than 2 inches and contain lead.

20. Will NDEP validate service line inventory records produced by PWSs?

No, PWSs need to verify their own records. The PWS may decide what types of records they are willing to accept as legally defensible. However, records must be available on request.

21. How much field verification is needed to validate staff interviews?

- Historical knowledge is useful for prioritizing field verifications, but physical verification will likely be necessary to confirm historical knowledge and document the materials.
- If a record exists (e.g., plumbers’ receipt, building permit record, title company record), visual inspection may not be needed.




22. What methods may PWSs use to determine the materials of the service line?

- Homeowner photographs with test results (e.g., magnet, scratch test, lead test)
- Lead test kits
- Scratch test
- Potholing
- Hydrovaccing
- Plumbing records
- Other methods will be considered on a case-by-case basis

23. What is a pigtail? Does a pigtail qualify the line as lead? Should lead pigtails be replaced?

- A pigtail (also called “gooseneck”) is a flexible connector sometimes used to connect the saddle on the main to the horizontal service line. Before poly flex hose was available, these were commonly made of flexible metal (e.g., lead) that would not pinch off when bent.
- Pigtails/goosenecks are not considered part of the service line. If the pigtail/gooseneck is made of lead, but the remainder of the service line has no lead or galvanized steel, the line should be listed as “non-lead”. However, the material must be noted in the baseline inventory regardless of material classification.
- Lead pigtails/goosenecks should be replaced during routine maintenance.



24. How does a water system document galvanized steel water distribution lines downstream of confirmed lead distribution lines?

- Galvanized steel water distribution lines that are downstream of confirmed lead distribution lines or may have historically been downstream of lead are considered GRR and must be replaced.
- Galvanized steel water distribution lines upstream from known lead distribution lines do not have to be replaced.

25. May sampling be used to determine the service line materials?

Sampling may only be used to determine an LSL but not to determine a non-lead service line.

26. Will NDEP review and approve predictive modeling and emerging methods used to develop an inventory?

- These types of tools for developing an inventory will be considered on a case-by-case basis.
- They will need to be robust and legally defensible.
- If after submittal and approval a determined non-lead service line is determined to be a lead service line, the whole method will need to be reviewed, and physical verification of other non-lead service lines will be necessary.

27. Does the inventory need to be publicly accessible?

- Yes, the service line inventory must be made publicly accessible by October 16, 2024. Systems serving over 50,000 people must make their inventory available online.
- The inventory must include a location identifier, such as a street address, block, intersection, or landmark, associated with each lead service line and galvanized requiring replacement service line. Water systems may, but are not required to, include a locational identifier for lead status unknown service lines or list the exact address of each service line.

28. What do I do if I have no lead, GRR, or unknowns in my inventory?

- Water systems must submit the full inventory to BSDW (or NNPH if under them) regardless of having all non-lead service lines.
- However, in lieu of making the service line inventory publicly accessible, the system may provide a statement declaring that the distribution system has no lead or GRR service lines and a general description of the methods used to make this determination.

29. What are the public education requirements if a system's inventory has any lead, GRR, or unknown service lines?

- Systems that have any lead, GRR, or unknowns service lines in their initial inventory must provide public notice to customers serviced by these service lines within 30 days of submitting the initial service line inventory and then annually until the line is replaced or identified as non-lead. New customers must be notified at time-of-service initiation.
- See questions 6-8 for more information.

SERVICE LINE REPLACEMENT PLAN

30. What systems are required to submit a service line replacement plan?

Any system with one or more lead, GRR, or unknown service line in the baseline service line inventory that will be tuned in on or before November 1, 2027.

31. What are the required elements of the replacement plan? (40 CFR 141.84(c)(1)(i)-(viii))

- A strategy for determining the material of an unknown service line;
- A standard operating procedure for conducting a full-service line inventory;
- A communication strategy to inform consumers and customers before a full or partial lead or GRR service line replacement;
- A procedure for consumers and customers to flush service line and premise plumbing following a disturbance or replacement of a lead;
- A strategy to prioritize service line replacement based on factors including, but not limited to, known lead and GRR service lines and community-specific factors, such as populations that are disproportionately impacted by lead and populations most sensitive to the effects of lead;
- A funding strategy for conducting service line replacement. If a system intends to charge customers for the cost to replace all or a portion of the service line because it is authorized or required to do so under State or local law or water tariff agreement, the funding strategy must include a description of whether and how the water system intends to assist customers who are unable to pay to replace the portion of the service line they own;
- A communication strategy to inform residential and non-residential customers and consumers served by the water system about the service line replacement plan; and
- Identification of any laws, regulations, and/or water tariff agreements that affect the water system's ability to gain access to conduct full lead and GRR service line replacement, including the citation to the specific laws, regulations, or water tariff agreement provisions. This includes identification of any laws, regulations, and/or water tariff agreements that require customer consent and/or require or authorize customer cost-sharing.



32. When must all lead and GRR service lines be replaced?

Systems will have 10 years to replace all lead and GRR service lines.

33. When must all unknown service lines be identified?

Systems will have 10 years to identify all unknown service lines.

34. How will the replacement rate be calculated?

Systems are required to have an annual average replacement rate of 10% of their replacement pool across a cumulative period.

35. How do I calculate my replacement pool?

- A system must add together all lead, GRR, and unknown service lines in the baseline inventory submitted on November 1, 2027, to determine their replacement pool.
- Lead or GRR service lines cannot be subtracted from the pool as they are replaced.
- Service lines not under the control of the water system cannot be subtracted from the pool.
- Unknown service lines must be subtracted from the pool if identified as non-lead.

36. Do lead connectors need to be replaced?

Yes, systems must replace lead connects when encountered. This could be during planned or unplanned maintenance.



LEAD AND COPPER SAMPLING UNDER THE LCRI

37. Who will need to submit a new lead and copper sampling plan and when?

- All CWS and NTNC water systems will be required to submit a new lead and copper sample plan before their next monitoring period after November 1, 2027.
 - Ex. 1) A system is on 3-year monitoring. Their last monitoring period was 2024–2026. Their new sample plan would be due before their next monitoring period in 2029.
 - Ex. 2) A system is on annual monitoring; their new sample plan would be due before their monitoring in 2028.

38. What is the new sample tiering structure?

- **Tier 1**: single-family structures with premise plumbing made of lead and/or served by a lead service line.
- **Tier 2**: buildings, including multiple-family residences, with premise plumbing made of lead and/or served by a lead service line.
- **Tier 3**: sites that are served by a lead connector, served by a galvanized service line or containing galvanized premise plumbing identified as ever having been downstream of a lead service line. Tier 3 for community water systems only includes single-family structures.
- **Tier 4**: sites that contain copper premise plumbing with lead solder installed before the effective date of the State's applicable lead ban. Tier 4 for community water systems only includes single-family structures.
- **Tier 5**: sites that are representative of sites throughout the distribution system.

39. Will my system be required to return to standard monitoring after November 1, 2027?

Any system with one or more lead or GRR service line in the baseline service line inventory submitted on November 1, 2027, will be placed back on standard monitoring for at least 1 year.

40. What sample locations will require a 1st and 5th liter sample?

- Any location that is serviced by a lead service line will require a 1st and 5th liter sample. Samples must be taken consecutively.
- All other sites will remain as a 1st draw 1 liter sample.

LEAD SAMPLING IN SCHOOLS AND CHILDCARE FACILITIES

41. When is the list of schools and childcare facilities due?

It is due November 1, 2027.

42. What schools and childcare facilities do not need to be included in the list?

Any school or childcare facility that was constructed or had full plumbing replacement on or after the date the State adopted the new definition of lead-free and is not served by a lead, GRR, or unknown service line, does not need to be included on the list.

43. What are the testing requirements for identified schools and childcare facilities?

- 20% of identified elementary schools and 20% of identified childcare facilities must be sampled each year.
- Secondary schools sampled on request.

44. Are there other requirements under this program besides lead sampling?

Systems must contact all identified schools and childcare facilities and provide information about the health risks of lead in drinking water once a year.

45. Are sampling waivers available?

- Yes, sampling waivers are available for schools and childcare facilities that participated in alternative lead sampling programs that meet certain criteria.
- Please contact BSDW for more information about what schools and childcare facilities qualify for sampling waivers.



CALCULATING THE 90TH PERCENTILE FOR LEAD AND COPPER

46. If my system is required to take 1st and 5th liter samples, which one do I use in my 90th percentile calculation?

Systems taking 1st and 5th liter samples will use the higher of the two in their 90th percentile calculation. The lower of the two cannot be included.

47. How can I calculate my 90th percentile if I'm required to collect five samples or less?

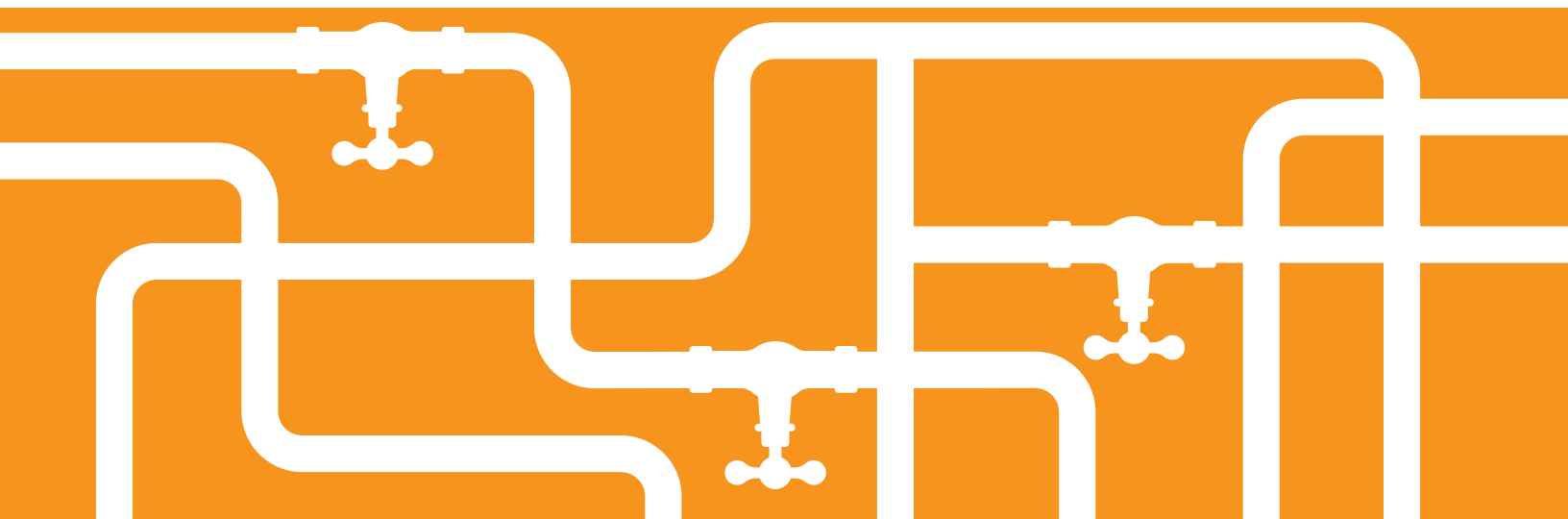
1. Place lead or copper results in ascending order.
2. Take the average of the 4th and 5th highest sample. This is your 90th percentile level.
3. Compare the 90th percentile level against the lead or copper action level. If your 90th percentile value is higher than 0.015 mg/L for lead and/or 1.3 mg/L for copper, you have an exceedance.

(Spreadsheet calculator is provided on the BSDW Lead and Copper page linked below)

48. How can I calculate my 90th percentile if I'm required to collect more than five samples?

1. Place results in order from lowest to highest value.
2. Assign each sample a number 1 –10.
3. Multiply the total number of samples by 0.9.
4. Compare the 90th percentile level to the action level. If your 90th percentile value is higher than 0.015 mg/L for lead and/or 1.3 mg/L for copper, you have an exceedance.

(Spreadsheet calculator is provided on the BSDW Lead and Copper page linked below)



GENERAL RESOURCES

[Lead and Copper Rule Main Page \(NDEP/BSDW\)](#)

[Revised Lead and Copper Rule Main Page \(U.S. EPA\)](#)

[Lead and Copper Rule Overview \(U.S. EPA\)](#)

[Lead and Copper Rule Implementation Tools](#)

[Guidance for Developing and Maintaining a Service Line Inventory \(U.S. EPA\)](#)

[90th Percentile Calculator \(U.S. EPA\)](#)



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