



## Proposed Lead and Copper Rule Improvements Rule Comparison Guide for Public Water Systems and Primacy Agencies November 2023

The United States Environmental Protection Agency (EPA) is proposing the Lead and Copper Rule Improvements (LCRI) to protect children and adults from the significant, and irreversible, health effects from being exposed to lead in drinking water. The proposal builds on the 2021 Lead and Copper Rule Revisions (LCRR) and the 1991 Lead and Copper Rule (LCR). EPA has developed this rule comparison guide to assist water systems and primacy agencies (also referred to as “States” in this document) in understanding the proposed LCRI. The following table compares the major differences among the LCR, the LCRR, and proposed LCRI.

*Note a similar table can be found in the preamble for the proposed LCRI, available at [www.regulations.gov](http://www.regulations.gov), Docket ID No. EPA-HQ-OW-2022-0801. This table provides additional detail on clarification of requirements retained from previous lead and copper regulations to assist the reader in further understanding the lead and copper rules along with proposed requirements in the LCRI.*

Pre-2021 LCR	LCRR	Proposed LCRI
<b>Service Line Inventory</b>		
<ul style="list-style-type: none"> <li>• Systems were required to complete a materials evaluation by the time of initial sampling.</li> <li>• No requirement to update materials evaluation.</li> </ul>	<ul style="list-style-type: none"> <li>• All systems must develop an initial lead service line (LSL) inventory within 3 years of final rule publication (by October 16, 2024).</li> <li>• The inventory must include a location identifier for each LSL and galvanized requiring replacement (GRR) service line.</li> <li>• The inventory must be made publicly accessible; and available online for systems serving &gt; 50,000 people.</li> <li>• The LSL inventory must be updated at a frequency based on the system’s tap sampling frequency but no more than annually.</li> </ul>	<ul style="list-style-type: none"> <li>• All systems must review records for information on connector materials and include lead connectors in the LCRI baseline inventory by the compliance date.</li> <li>• The inventory must include a street address with each service line and connector.</li> <li>• Retains the LCRR requirement for the inventory to be made publicly accessible; and available online for systems serving &gt; 50,000 people.</li> <li>• Service line inventory must be updated annually.</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
		<ul style="list-style-type: none"> <li>• Systems must respond to customer inquiries on incorrect material categorizations within 60 days.</li> <li>• Systems must validate the accuracy of the non-lead service line category in their inventory no later than 7 years after the compliance date unless on a shortened or deferred deadline.</li> <li>• Systems must identify all unknown service lines by the applicable mandatory replacement deadline.</li> </ul>
<b><i>Service Line Replacement</i></b>		
<p><b>Replacement Plan</b></p> <ul style="list-style-type: none"> <li>• No requirement.</li> </ul>	<p><b>Replacement Plan</b></p> <ul style="list-style-type: none"> <li>• Systems with at least one lead, GRR, or unknown service line must develop a lead service line replacement (LSLR) plan.</li> <li>• The plan must include strategies for identifying unknowns; procedures for full service line replacement; a customer communication strategy; flushing instructions; a strategy to prioritize replacements based on factors including but not limited to the targeting of known LSLs, LSLR for disadvantaged consumers and populations most sensitive to the effects of lead; and a funding strategy.</li> <li>• No requirement to make the plan publicly accessible.</li> </ul>	<p><b>Replacement Plan</b></p> <ul style="list-style-type: none"> <li>• All systems with at least one lead, GRR, or unknown service line must develop the service line replacement plan (with all elements required in the LCRR).</li> <li>• The plan must also include additional elements including a strategy to inform customers and consumers about the plan and replacement program and an identification of any legal requirements or water tariff agreement provisions that affect a system’s ability to gain access to conduct full service line replacement.</li> <li>• Updates the language on the replacement prioritization strategy.</li> <li>• Service line replacement plan must be made publicly accessible; and available online for systems serving &gt; 50,000 people.</li> </ul>
<p><b>LSLR</b></p> <ul style="list-style-type: none"> <li>• Replacement programs are based on the lead 90<sup>th</sup> percentile (P90) level, corrosion control treatment (CCT) installation, and/or source water treatment.</li> </ul>	<p><b>LSLR</b></p> <ul style="list-style-type: none"> <li>• Replacement programs are based on P90 lead level for community water systems (CWSs) serving &gt; 10,000 people:</li> </ul>	<p><b>Service Line Replacement</b></p> <ul style="list-style-type: none"> <li>• Mandatory full service line replacement program for all systems.</li> <li>• All CWSs and NTNCWSs with one or more lead, GRR, or unknown service line in their</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
<ul style="list-style-type: none"> <li>• Systems with LSLs with P90 lead &gt; 0.015 mg/L after CCT installation must annually replace at least 7 percent of number of LSLs in their distribution system when the lead action level is first exceeded.</li> <li>• Systems must replace the LSL portion they own and offer to replace the private portion at the owner’s expense.</li> <li>• Full LSLR, partial LSLR, and LSLs with lead sample results ≤ 0.015 mg/L (“test-outs”) count toward the 7 percent replacement rate.</li> <li>• Systems can discontinue LSLR after 2 consecutive 6-month monitoring periods at or below the lead action level.</li> <li>• Requires replacement of LSLs only.</li> </ul>	<ul style="list-style-type: none"> <li>○ If P90 &gt; 0.015 mg/L: Must fully replace 3 percent of LSLs and GRR service lines per year based upon a 2-year rolling average (mandatory replacement) for at least 4 consecutive 6-month monitoring periods.</li> <li>○ If 0.010 mg/L &lt; P90 ≤ 0.015 mg/L: Implement a goal-based LSLR program and consult the primacy agency (or State) on replacement goals for 2 consecutive 1-year monitoring periods.</li> <li>• CWSs serving ≤ 10,000 people and all non-transient, non-community water systems (NTNCWSs) that select LSLR as their compliance option must complete LSLR within 15 years if P90 &gt; 0.015 mg/L. Also, see the <i>Small System Flexibility</i> section of this fact sheet.</li> <li>• Annual LSLR rate is applied to the number of LSLs and GRR service lines when the system first exceeds the trigger or action level plus the number of unknown service lines at the beginning of the year.</li> <li>• Only full LSLR (replacement of the entire length of the service line) counts toward mandatory rate and goal-based rate. No “test-outs.”</li> <li>• All systems replace their portion of an LSL if notified by consumer of private side replacement within 45 days of notification of the private replacement. If the system cannot replace the system’s portion within 45 days, it must notify the State and replace the system’s portion within 180 days.</li> <li>• Following each LSLR, systems must:</li> </ul>	<ul style="list-style-type: none"> <li>inventory must replace LSLs and GRR service lines under their control in 10 years. Systems required to replace &gt;10,000 lines per year or systems exceeding 0.039 replacements per household per year would be eligible for deferred deadlines beyond the 10-year replacement deadline. Systems must replace service lines by a shortened deadline if determined feasible by the State.</li> <li>• Systems must replace service lines at a minimum average annual rate of 10 percent calculated on a rolling 3-year period unless subject to a shortened or deferred deadline.</li> <li>• Average annual replacement rate is applied to the number of LSLs and GRR service lines in the baseline inventory submitted by the compliance date plus the number of unknown service lines updated annually.</li> <li>• Systems must conduct reasonable efforts (at least 4 attempts) to engage property owners about full service line replacement, when applicable.</li> <li>• LCRR requirements remain for counting only full service line replacements towards replacement rate, completing customer-initiated replacements, providing a filter and offering tap sampling following replacements, and replacing lead connectors when encountered.</li> <li>• Systems conducting partial service line replacement must offer to replace the remaining portion of the service line not under their control (within 45 days for emergencies).</li> </ul>

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	<ul style="list-style-type: none"> <li>○ Provide pitcher filters and cartridges to each customer for 6 months after replacement. Provide pitcher filters and cartridges before the affected portion of the line or the fully replaced service line is returned to service.</li> <li>○ Collect a lead tap sample at locations served by the replaced line within 3 to 6 months after replacement.</li> <li>● Requires replacement of lead connectors when encountered.</li> <li>● Systems must make 2 good faith efforts to engage customers about LSLR.</li> <li>● Systems conducting partial LSLR must offer to replace the portion of the service line.</li> </ul>	
<p><b>LSL-Related Outreach</b></p> <ul style="list-style-type: none"> <li>● When a water system plans to replace the portion it owns, it must offer to replace the customer-owned portion at owner’s expense.</li> <li>● If a system replaces its portion only: <ul style="list-style-type: none"> <li>○ Provide notification to affected residences within 45 days prior to replacement on possible elevated short-term lead levels and measures to minimize exposure.</li> <li>○ Include offer to collect lead tap sample within 72 hours of replacement.</li> <li>○ Provide test results within 3 business days after receiving results.</li> </ul> </li> </ul>	<p><b>LSL-Related Outreach</b></p> <ul style="list-style-type: none"> <li>● Notify consumers annually if they are served by a lead, GRR, or unknown service line.</li> <li>● Deliver notice and educational materials to consumers during water-related work that could disturb LSLs.</li> <li>● Systems subject to goal-based program must: <ul style="list-style-type: none"> <li>○ Conduct targeted outreach that encourages consumers with LSLs to participate in the LSLR program.</li> <li>○ Conduct an additional outreach activity if they fail to meet their goal.</li> </ul> </li> </ul> <p>Systems subject to mandatory LSLR must include information about the LSLR program in public education (PE) materials that are provided in response to P90 &gt; action level.</p>	<p><b>Service Line Related Outreach</b></p> <ul style="list-style-type: none"> <li>● Maintains LCRR requirement to notify consumers annually if they are served by a lead, GRR, or unknown service line.</li> <li>● Deliver notice and educational materials to consumers during water-related work that could disturb lead, GRR, or unknown service lines, including disturbances due to inventorying efforts.</li> <li>● If the system fails to meet the mandatory service line replacement rate, conduct public outreach activities to encourage consumers with lead, GRR, and unknown service lines to participate in the service line replacement program.</li> <li>● Removes goal-based program outreach activities.</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
<b>Action Level and Trigger Level</b>		
<ul style="list-style-type: none"> <li>• P90 level above lead action level of 0.015 mg/L or copper action level of 1.3 mg/L requires additional actions.</li> <li>• Lead action level exceedance requires 7 percent LSLR (includes partial replacements), CCT recommendation and possible study and installation, and PE within 60 days after the end of the monitoring period.</li> </ul>	<ul style="list-style-type: none"> <li>• P90 level above lead action level of 0.015 mg/L or copper action level of 1.3 mg/L requires more actions than the previous rule.</li> <li>• Defines lead trigger level of 0.010 mg/L &lt; P90 ≤ 0.015 mg/L that triggers additional planning, monitoring, and treatment requirements.</li> <li>• Trigger level exceedance requires goal-based LSLR and steps taken towards CCT installation or re-optimization.</li> <li>• Lead action level exceedance requires 3 percent LSLR (no partial replacements), CCT installation or re-optimization, PE, and public notification (PN) within 24 hours.</li> </ul>	<ul style="list-style-type: none"> <li>• Removes the lead trigger level.</li> <li>• P90 level above lead action level of 0.010 mg/L or copper action level of 1.3 mg/L requires actions including installation or re-optimization of CCT, and PE and 24-hour PN (for lead action level exceedances).</li> <li>• Mandatory full service line replacement of LSLs and GRR service lines is independent of P90 lead levels.</li> </ul>
<b>Lead and Copper Tap Monitoring</b>		
<p><b>Sample Site Selection</b></p> <ul style="list-style-type: none"> <li>• Prioritizes collection of samples from sites with sources of lead in contact with drinking water.</li> <li>• Highest priority given to sites served by copper pipes with lead solder installed after 1982 or containing lead pipes and sites served by LSLs.</li> <li>• Systems must collect 50 percent of samples from LSLs, if available.</li> </ul>	<p><b>Sample Site Selection</b></p> <ul style="list-style-type: none"> <li>• Changes priorities for collection of samples with a greater focus on LSLs.</li> <li>• Prioritizes collecting samples from sites served by LSLs. All samples must be collected from sites served by LSLs, if available.</li> <li>• No distinction in prioritization of copper pipes with lead solder by installation date.</li> <li>• Adds 2 tiers to focus tap sample site selection tiering criteria on LSLs first.</li> </ul>	<p><b>Sample Site Selection</b></p> <ul style="list-style-type: none"> <li>• Retains LCRR requirement that all samples be collected from sites served by LSLs, if available.</li> <li>• Combines the tap sample site selection tiering criteria for CWSs and NTNCWSs.</li> <li>• Revises Tier 3 sites to include sites served by a lead connector as well as sites served by a galvanized service line or containing galvanized premise plumbing that are identified as ever being downstream of an LSL or lead connector in the past.</li> </ul>
<p><b>Collection and Analysis</b></p> <ul style="list-style-type: none"> <li>• Requires collection of the first-liter sample after water has sat stagnant for a minimum of 6 hours.</li> </ul>	<p><b>Collection and Analysis</b></p> <ul style="list-style-type: none"> <li>• Requires collection of the fifth-liter sample in homes with LSLs after water has sat stagnant for a minimum of 6 hours. Maintains first-liter sampling protocol in homes without LSLs.</li> </ul>	<p><b>Collection and Analysis</b></p> <ul style="list-style-type: none"> <li>• Requires collection of first- and fifth-liter samples in homes with LSLs after water has sat stagnant for a minimum of 6 hours.</li> <li>• Requires the higher value of the first- and fifth-liter lead concentration in homes with</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
	<ul style="list-style-type: none"> <li>• Adds requirement that samples must be collected in wide-mouth bottles.</li> <li>• Prohibits sampling instructions that include recommendations for aerator cleaning/ removal and pre-stagnation flushing prior to sample collection.</li> </ul>	<ul style="list-style-type: none"> <li>• LSLs to be used to calculate the 90<sup>th</sup> percentile value for lead.</li> <li>• Clarifies the definition of a wide-mouth bottle.</li> <li>• Retains the LCRR sampling instruction prohibitions.</li> </ul>
<p><b>Monitoring Frequency</b></p> <ul style="list-style-type: none"> <li>• Samples are analyzed for both lead and copper.</li> <li>• Systems must collect standard number of samples based on population; semi-annually unless they qualify for reduced monitoring.</li> <li>• Systems can qualify for annual or triennial monitoring at reduced number of sites. Monitoring schedule based on the number of consecutive years meeting the following criteria: <ul style="list-style-type: none"> <li>○ Serves ≤ 50,000 people and P90 is at or below the lead and copper action levels, respectively.</li> <li>○ Serves any population size, meets State-specified optimized water quality parameters (OWQPs), and P90 ≤ lead action level.</li> </ul> </li> <li>• Triennial monitoring also applies to any system with lead P90 ≤ 0.005 mg/L and copper P90 ≤ 0.65 mg/L for 2 consecutive 6-month monitoring periods.</li> <li>• Based on rule criteria, systems serving ≤ 3,300 people can apply for a 9-year monitoring waiver.</li> </ul>	<p><b>Monitoring Frequency</b></p> <ul style="list-style-type: none"> <li>• Samples are analyzed for lead and copper, only copper, or only lead. This occurs when lead monitoring is conducted more frequently or at more sites than copper, and at LSL sites where a fifth-liter sample is only analyzed for lead.</li> <li>• Lead monitoring schedule is based on the P90 level for all systems as follows: <ul style="list-style-type: none"> <li>○ P90 &gt; 0.015 mg/L: Semi-annually at the standard number of sites.</li> <li>○ 0.010 mg/L &lt; P90 ≤ 0.015 mg/L: Annually at the standard number of sites.</li> <li>○ P90 ≤ 0.010 mg/L: Annually at the standard number of sites and triennially at reduced number of sites using same criteria as the LCR except copper P90 level is not considered.</li> </ul> </li> <li>• Based on rule criteria, systems serving ≤ 3,300 people can apply for a 9-year monitoring waiver.</li> </ul>	<p><b>Monitoring Frequency</b></p> <p>Monitoring schedule is based on both lead and copper P90 levels for all systems as follows:</p> <ul style="list-style-type: none"> <li>• All water systems with lead, GRR, and/or unknown service lines must begin by collecting a standard number of samples semi-annually.</li> <li>• Systems may retain or qualify for reduced monitoring based on the number of consecutive monitoring periods: <ul style="list-style-type: none"> <li>○ P90 ≤ action level for 2 consecutive 6-month periods: Annual monitoring at the standard number of sites for lead and reduced number of sites for copper.</li> <li>○ P90 ≤ practical quantitation limit (PQL) for 2 consecutive 6-month periods: Triennial monitoring at the reduced number of sites.</li> </ul> </li> <li>• Additional criteria for small and medium systems to qualify for triennial monitoring.</li> <li>• Based on rule criteria, systems serving ≤ 3,300 people can apply for a 9-year monitoring waiver.</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
<b>Corrosion Control Treatment (CCT) and Water Quality Parameters (WQPs)</b>		
<p><b>CCT</b></p> <ul style="list-style-type: none"> <li>• Systems serving &gt; 50,000 people were required to install treatment by January 1, 1997, with limited exception.</li> <li>• Systems serving ≤ 50,000 that exceed the lead and/or copper action level(s) are subject to CCT requirements (e.g., CCT recommendation, study if required by the State, CCT installation). They can discontinue CCT steps if no longer exceed both action levels for 2 consecutive 6-month monitoring periods.</li> <li>• Systems must operate CCT to meet any OWQPs designated by the State that define optimal CCT (OCCT).</li> <li>• There is no requirement for systems to re-optimize.</li> </ul>	<p><b>CCT</b></p> <ul style="list-style-type: none"> <li>• Specifies CCT requirements for systems with <math>0.010 &lt; P90 \text{ lead level} \leq 0.015 \text{ mg/L}</math>: <ul style="list-style-type: none"> <li>○ No CCT: Must conduct a CCT study if required by the State.</li> <li>○ With CCT: Must follow the steps for re-optimizing CCT, as specified in the rule.</li> </ul> </li> <li>• Systems with P90 lead level &gt; 0.015 mg/L: <ul style="list-style-type: none"> <li>○ No CCT: Must complete CCT installation regardless of their subsequent P90 levels if system has started to install CCT.</li> <li>○ With CCT: Must re-optimize CCT.</li> </ul> </li> <li>• CWSs serving ≤ 10,000 people and all NTNCWSs can select an option other than CCT to address lead. Also, see the <i>Small System Flexibility</i> section of this fact sheet.</li> </ul>	<p><b>CCT</b></p> <ul style="list-style-type: none"> <li>• Systems with P90 lead level &gt; 0.010 mg/L: <ul style="list-style-type: none"> <li>○ No CCT: Must complete CCT installation regardless of their subsequent P90 levels if system has started to install CCT.</li> <li>○ With CCT: Must re-optimize CCT.</li> <li>○ Systems with OCCT meeting OWQPs need only re-optimize OCCT once, unless required to do so by the State.</li> </ul> </li> <li>• CWSs serving ≤ 3,300 people and all NTNCWSs can select an option other than CCT to address lead. Also, see the <i>Small System Flexibility</i> section of this fact sheet.</li> <li>• Deferred OCCT or re-optimized OCCT for systems that can complete removal of 100 percent LSLs and GRR service lines within 5 years of the date they are triggered into CCT steps at a 20 percent annual replacement rate. Systems with CCT must maintain CCT during the 5-year service line replacement program.</li> </ul>
<p><b>CCT Options</b></p> <p>Includes alkalinity and pH adjustment, calcium hardness adjustment, and phosphate or silicate-based corrosion inhibitor.</p>	<p><b>CCT Options</b></p> <p>Removes calcium hardness as an option and specifies any phosphate inhibitor must be orthophosphate.</p>	<p><b>CCT Options</b></p> <p>No changes from the LCRR.</p>
<p><b>WQPs</b></p> <ul style="list-style-type: none"> <li>• No CCT: pH, alkalinity, calcium, conductivity, temperature, orthophosphate (if phosphate-based inhibitor is used), silica (if silica-based inhibitor is used).</li> <li>• With CCT: pH, alkalinity, and based on type of CCT either orthophosphate, silica, or calcium.</li> </ul>	<p><b>WQPs</b></p> <ul style="list-style-type: none"> <li>• Eliminates WQPs related to calcium hardness (i.e., calcium, conductivity, and temperature).</li> <li>• All other parameters are the same as the LCR.</li> </ul>	<p><b>WQPs</b></p> <ul style="list-style-type: none"> <li>• No changes from the LCRR.</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
<p><b>WQP Monitoring</b></p> <ul style="list-style-type: none"> <li>• Systems serving &gt; 50,000 people must conduct regular WQP monitoring at entry points and within the distribution system.</li> <li>• Systems serving ≤ 50,000 people conduct monitoring only in those periods &gt; lead or copper action level.</li> <li>• Contains provisions to sample at reduced number of sites in distribution system less frequently for all systems meeting their OWQPs.</li> </ul>	<p><b>WQP Monitoring</b></p> <ul style="list-style-type: none"> <li>• Systems serving &gt; 50,000 people must conduct regular WQP monitoring at entry points and within the distribution system.</li> <li>• Systems serving ≤ 50,000 people must continue WQP monitoring until they no longer &gt; lead and/or copper action level(s) for 2 consecutive 6-month monitoring periods.</li> <li>• To qualify for reduced WQP distribution monitoring, P90 lead level must be ≤ 0.010 mg/L and the system must meet its OWQPs.</li> </ul>	<p><b>WQP Monitoring</b></p> <ul style="list-style-type: none"> <li>• Systems with CCT (unless deemed optimized) serving ≥ 10,000 people must conduct regular WQP monitoring at entry points and within the distribution system.</li> <li>• Systems serving &lt;10,000 people and systems without CCT serving ≤ 50,000 people that exceed the lead and/or copper action level(s) must continue WQP monitoring until they no longer exceed lead and/or copper action level(s) for 2 consecutive 6-month monitoring periods.</li> <li>• Systems without CCT serving &gt; 10,000 but ≤ 50,000 people that exceed the lead action level that are required to install CCT, must continue to conduct WQP monitoring.</li> </ul>
<p><b>Sanitary Survey Review</b> Treatment must be reviewed during sanitary surveys; no specific requirement to assess CCT or WQPs.</p>	<p><b>Sanitary Survey Review</b> CCT and WQP data must be reviewed during sanitary surveys against most recent CCT guidance issued by EPA.</p>	<p><b>Sanitary Survey Review</b> No changes from the LCRR.</p>
<p><b>Find-and-Fix</b> No required follow-up samples or additional actions if an individual sample exceeds the lead action level.</p>	<p><b>Find-and-Fix</b> If individual tap samples &gt; 0.015 mg/L lead, find-and-fix steps include:</p> <ul style="list-style-type: none"> <li>• Conduct WQP monitoring at or near the site &gt; 0.015 mg/L.</li> <li>• Collect tap sample at the same tap sample site within 30 days. <ul style="list-style-type: none"> <li>○ For LSL, collect any liter or sample volume.</li> <li>○ If LSL is not present, collect 1-liter first draw after stagnation.</li> </ul> </li> <li>• Perform needed corrective action.</li> <li>• Document customer refusal or nonresponse after 2 attempts.</li> <li>• Provide information to local and State public health officials.</li> </ul>	<p><b>Distribution System and Site Assessment</b></p> <ul style="list-style-type: none"> <li>• Changes the name from “Find-and-Fix” to “Distribution System and Site Assessment” to describe this requirement more precisely.</li> <li>• Requirements from the LCRR affect systems with individual tap samples &gt; 0.010 mg/L lead.</li> <li>• Clarifies that the distribution system sample location must be within a half mile radius of each site with a result &gt; 0.010 mg/L.</li> </ul>



Pre-2021 LCR	LCRR	Proposed LCRI
<b><i>Small System Flexibility</i></b>		
<p>No provisions for systems to elect an alternative treatment approach but sets specific requirements for CCT and LSLR.</p>	<p>Allows CWSs serving <math>\leq 10,000</math> people and all NTNCWSs with lead P90 <math>&gt; 0.010</math> mg/L to select their compliance option to address lead with State approval:</p> <ul style="list-style-type: none"> <li>• Systems can choose CCT, LSLR, provision and maintenance of point-of-use (POU) devices, or replacement of all lead-bearing plumbing materials.</li> <li>• If the system's P90 lead level <math>&gt; 0.015</math> mg/L, the system must implement the compliance option.</li> </ul>	<p>Allows CWSs serving <math>\leq 3,300</math> people and all NTNCWSs with P90 levels <math>&gt;</math> lead action level and <math>\leq</math> copper action level to conduct the following actions in lieu of CCT requirements to address lead with State approval:</p> <ul style="list-style-type: none"> <li>• Choose a compliance option: (1) provision and maintenance of POU devices or (2) replacement of all lead-bearing plumbing materials.</li> <li>• Removes the compliance option to conduct LSLR in 15 years.</li> </ul> <p>Maintains option for systems following CCT requirements:</p> <ul style="list-style-type: none"> <li>• With CCT: Collect WQPs and evaluate compliance options and OCCT.</li> <li>• No CCT: Evaluate compliance options and CCT.</li> </ul>
<b><i>Public Education and Outreach</i></b>		
<ul style="list-style-type: none"> <li>• Systems with P90 <math>&gt;</math> lead action level must provide PE to customers about lead sources, health effects, measures to reduce lead exposure, and additional information sources.</li> <li>• Systems with P90 <math>&gt;</math> lead action level must offer lead tap sampling to customers who request it.</li> <li>• Systems must provide lead consumer notice to individuals served at tested taps within 30 days of learning results.</li> <li>• For water systems serving a large proportion of consumers with limited English proficiency, consumers can contact the system to get PE materials translated in other languages.</li> </ul>	<ul style="list-style-type: none"> <li>• Water systems must provide updated lead health effects language in PN and PE materials. CWSs must provide updated health effects language in the Consumer Confidence Report (CCR).</li> <li>• For water systems serving a large proportion of consumers with limited English proficiency, consumers can contact the system to get PE materials translated in other languages.</li> <li>• If P90 <math>&gt;</math> lead action level: <ul style="list-style-type: none"> <li>○ LCR PE requirements apply.</li> </ul> </li> <li>• Water systems must provide the lead consumer notice to consumers whose individual tap sample is <math>&gt; 0.015</math> mg/L lead as soon as practicable but no later than 3 days.</li> <li>• Water systems must deliver notice and</li> </ul>	<ul style="list-style-type: none"> <li>• Revises the mandatory lead health effects language to improve completeness and clarity.</li> <li>• Water systems must provide the updated health effects language in PN and all PE materials. CWSs must provide updated health effects language in the CCR.</li> <li>• For water systems serving a large proportion of consumers with limited English proficiency, all PE materials must include a translated statement regarding the importance of the materials and consumers can contact the system to get the materials translated in other languages.</li> <li>• Water systems must deliver consumer notice of lead and copper tap sampling results to</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
	<p>educational materials to consumers during water-related work that could disturb LSLs.</p> <ul style="list-style-type: none"> <li>• CWSs must provide information to local and State health agencies.</li> </ul> <p>Also, see the <i>Public Notification, Consumer Confidence Report, and LSL-Related Outreach</i> sections of this fact sheet.</p>	<p>consumers whose tap was sampled as soon as practicable but no later than 3 days after receiving the results.</p> <ul style="list-style-type: none"> <li>• If P90 &gt; lead action level: <ul style="list-style-type: none"> <li>○ LCRR PN requirements apply.</li> <li>○ Water systems must conduct PE no later than 60 days after the end of the tap sampling period until the system no longer exceeds the action level unless the State approves an extension.</li> </ul> </li> <li>• Water systems with multiple lead action level exceedances (at least 3 action level exceedances in a 5-year period) must conduct additional public outreach activities and make filters available.</li> <li>• Water systems must offer to sample the tap for lead for any customer with a lead, GRR, or unknown service line who requests it.</li> <li>• Water systems must deliver notice and educational materials to consumers during water-related work that could disturb LSLs.</li> <li>• CWSs must provide information to local and State health agencies.</li> </ul> <p>Also, see the <i>Public Notification, Consumer Confidence Report, and Service Line Related Outreach</i> sections of this fact sheet.</p>
<b>Public Notification</b>		
<ul style="list-style-type: none"> <li>• If P90 &gt; action level: <ul style="list-style-type: none"> <li>○ No PN required for P90 &gt; action level.</li> </ul> </li> <li>• Tier 2 PN required for treatment technique violations to § 141.80 through § 141.85.</li> <li>• Tier 3 PN required for monitoring and reporting violations to § 141.86 through § 141.89.</li> </ul>	<ul style="list-style-type: none"> <li>• If P90 &gt; lead action level: <ul style="list-style-type: none"> <li>○ Systems must notify consumers of P90 &gt; action level within 24 hours (Tier 1 PN).</li> </ul> </li> <li>• Tier 2 PN required for violations to § 141.80 (except § 141.80(c)) through § 141.84, § 141.85(a) through (c) and (h), and § 141.93.</li> <li>• Tier 3 PN required for violations to § 141.86 through § 141.90.</li> </ul>	<ul style="list-style-type: none"> <li>• If P90 &gt; lead action level: <ul style="list-style-type: none"> <li>○ LCRR Tier 1 PN requirements apply.</li> </ul> </li> <li>• Tier 2 PN required for violations to § 141.80 (except § 141.80(c)) through § 141.84, § 141.85(a) through (c) (except § 141.85(c)(3)) and (h) and (j), and § 141.93.</li> <li>• Tier 3 PN required for violations to § 141.86 through § 141.90 and § 141.92.</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
Also, see <i>Public Education and Outreach</i> section of this fact sheet.	<ul style="list-style-type: none"> <li>Also, see <i>Public Education and Outreach</i> section of this fact sheet.</li> </ul>	<ul style="list-style-type: none"> <li>Water systems must provide updated lead health effects language in PN.</li> <li>Also, see <i>Public Education and Outreach</i> section of this fact sheet.</li> </ul>
<b>Consumer Confidence Report</b>		
<ul style="list-style-type: none"> <li>All CWSs must provide educational material in the annual CCR.</li> </ul>	<ul style="list-style-type: none"> <li>CWSs must provide updated health effects language in the CCR.</li> <li>All CWSs are required to include information on how to access the LSL inventory and how to access the results of all tap sampling in the CCR.</li> <li>Revises the mandatory health effects language to improve accuracy and clarity.</li> </ul>	<ul style="list-style-type: none"> <li>Revises the mandatory lead health effects language and informational statement about lead in the CCR to improve completeness and clarity.</li> <li>CWSs must provide updated health effects language in the CCR.</li> <li>CWSs must provide an updated informational statement about lead in the CCR.</li> <li>CWSs must include a statement in the CCR about the system sampling for lead in schools and child care facilities and may direct the public to contact their school or child care facility for further information.</li> <li>CWSs with lead, GRR, or unknown service lines must include a statement in the CCR about how to access the service line inventory and replacement plan.</li> <li>Also see <i>Public Education and Outreach</i> section of this fact sheet.</li> </ul>
<b>Change in Source or Treatment</b>		
Systems on a <b>reduced</b> tap monitoring schedule must obtain prior State approval before changing their source or treatment.	Systems on <b>any</b> tap monitoring schedule must obtain prior State approval before changing their source or treatment. These systems must also conduct tap monitoring biannually.	No changes from the LCRR.
<b>Source Water Monitoring and Treatment</b>		
Periodic source water monitoring for lead and copper is required for systems with: <ul style="list-style-type: none"> <li>Source water treatment; or</li> </ul>	States can waive continued source water monitoring for lead and copper if the:	No changes from the LCRR.

Pre-2021 LCR	LCRR	Proposed LCRI
<ul style="list-style-type: none"> <li>• P90 &gt; action level and no source water treatment.</li> </ul>	<ul style="list-style-type: none"> <li>• System has already conducted source water monitoring for a previous P90 &gt; action level;</li> <li>• State has determined that source water treatment is not required; and</li> <li>• System has not added any new water sources.</li> </ul>	
<b><i>Lead in Drinking Water at Schools and Child Care Facilities</i></b>		
<ul style="list-style-type: none"> <li>• Does not include separate testing and education program for CWSs at schools and child care facilities.</li> <li>• Schools and child care facilities that are classified as NTNCWSs must sample for lead and copper.</li> </ul>	<ul style="list-style-type: none"> <li>• CWSs must conduct sampling at 20 percent of elementary schools and 20 percent of child care facilities per year and conduct sampling at secondary schools on request for first testing cycle (5 years) and conduct sampling on request of all schools and child care facilities thereafter.</li> <li>• Sample results and PE must be provided to each sampled school/child care facility, State, and local or State health department.</li> <li>• Excludes facilities constructed on or after January 1, 2014.</li> <li>• Waives schools and child care facilities that were sampled under a State or other program after October 16, 2024.</li> </ul>	<p>Expands the waiver to include:</p> <ul style="list-style-type: none"> <li>• Waivers for CWSs to sample in schools and child care facilities during the first 5-year testing cycle if the facility has been sampled between January 1, 2021, and the LCRI compliance date.</li> <li>• Requires CWSs to include a statement about the opportunity for schools and child care facilities to be sampled in the CCR.</li> <li>• Excludes facilities constructed or had full plumbing replacement on or after January 1, 2014.</li> </ul>
<b><i>Primacy Agency (or State) Reporting</i></b>		
<p>States must report information to EPA that includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>• All P90 levels for systems serving &gt; 3,300 people, and only levels &gt; 0.015 mg/L for smaller systems.</li> <li>• Systems that are required to initiate LSLR and the date replacement must begin.</li> <li>• Systems for which OCCT has been designated.</li> </ul>	<p>Expands on LCR requirements to include:</p> <ul style="list-style-type: none"> <li>• All P90 values for all system sizes.</li> <li>• The number of lead, GRR, and unknown service lines for every water system.</li> <li>• The goal-based or mandatory replacement rate and the date each system must begin LSLR.</li> <li>• OCCT status of all systems including OWQPs specified by the State.</li> <li>• For systems triggered into source water treatment, the State-designated date or determination for no treatment required.</li> </ul>	<p>Revises and expands on LCRR special primacy requirements. States must report information to EPA that includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>• The current number of lead, GRR, unknown service lines, non-lead service lines, and lead connectors in each system's inventory.</li> <li>• The number and type of service lines replaced and the replacement rate for every system conducting mandatory service line replacement.</li> </ul>

Pre-2021 LCR	LCRR	Proposed LCRI
		<ul style="list-style-type: none"> <li>• The deadline for the system to complete replacement of all lead and GRR service lines.</li> <li>• The expected date of completion of service line replacement.</li> <li>• The P90 values of systems with an action level exceedance within 15 days of the end of the monitoring period or, if earlier, within 24 hours of receiving the notice from the system.</li> </ul>

**Acronyms:** CCR = consumer confidence report; CCT = corrosion control treatment; CWS = community water system; GRR = galvanized requiring replacement; LCR = Lead and Copper Rule; LCRI = Lead and Copper Rule Improvements; LCRR = Lead and Copper Rule Revisions; LSL = lead service line; LSLR = lead service line replacement; NTNCWS = non-transient non-community water system; OCCT = optimal corrosion control treatment; OWQP = optimal water quality parameter; P90 = 90th percentile; PE = public education; PN = public notice; POU = point-of use; WQP = water quality parameter.

For more information on the proposed LCRI, please visit: <https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements>.

**Disclaimer:** This document is being provided for informational purposes only to assist members of the public, States, Tribes, and/or public water systems in reviewing and commenting on the package for the proposed LCR). In the event that there are any differences, conflicts, or errors between this document and the content included in the package for the proposed LCRI, including the preamble and proposed regulatory text, States, Tribes, and/or public water systems should refer to the rule package. The LCRI is only a proposed rule and the content discussed herein about the proposed LCRI is subject to change before a final LCRI is promulgated. This document does not impose any new legally binding requirements on EPA, States, Tribes, or the regulated community. Further, this document does not confer legal rights or impose legal obligations on any member of the public. In the event of a conflict between the discussion in this fact sheet and any statute or promulgated regulation, the statute and any promulgated regulations are controlling.