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Lead and Copper Rule Revisions

An Overview

On December 16, 2021, the US EPA finalized the Lead and Copper Rule Revisions (LCRR). Water systems will be required to make several changes over the coming years regarding lead and copper sampling, lead pipe replacement, and identification of lead pipes in the distribution system. The soonest compliance date is October 16, 2024, for the initial Service Line Inventory (discussed below). The Kentucky Division of Water (DOW) intends to provide guidance along the way.

Review the information in this letter and on the DOW webpage (<https://tinyurl.com/DrinkingWaterCompliance>) for more information, and be sure to share this information with those who make key decisions for the water system (city officials, mayors, commission, board, etc.).

Key new provisions of the LCRR:

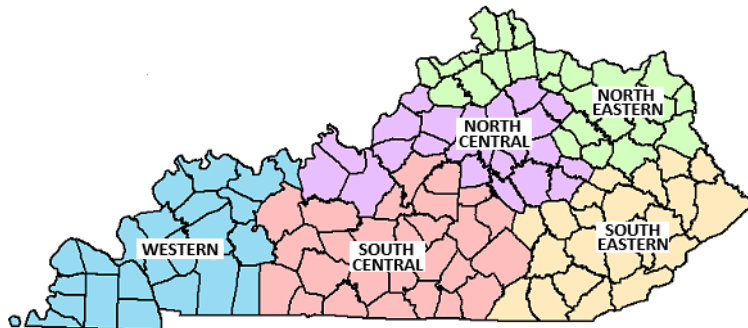
- All water systems must complete a Service Line Inventory that lists all service lines, including system-owned and customer-owned sections of potable and non-potable service lines (such as those for fire suppression and agriculture). *This includes non-community water systems.* The intent is to identify the material composition of every service line.
- While the Lead Action Level remains 15 ppb, but there is now also a Lead Trigger Level of 10 ppb, with more actions required.
- Tap sampling procedure changes:
 - New tiers – new sample site plans will be required for many systems by October 16, 2024.
 - Lead sample collection procedures: must now use wide mouth bottles to collect 1st and 5th liter from tap, after 6 hours stagnation (lead only; copper tap sampling protocol is unchanged). Look for more information on the DOW website (<https://tinyurl.com/DrinkingWaterCompliance>).
 - Monitoring frequency will change in 2025.
- Corrosion Control Treatment (CCT) changes, including the entity that treats and what type of treatments may be used.
- Water Quality Parameter (WQP) changes, including testing parameters and sampling requirements.
- Sampling at elementary schools and childcare centers must begin in 2025 (20% of schools/child care centers per year, excluding schools built after 2014).
- Lead pipe replacement requirements, including a lead replacement plan, replacement of both utility-owned and customer-owned sections of lead service lines, and using point-of-use filtration devices after replacing lead pipes.
- Increased communication with customers, including new lead health effects language for Consumer Confidence Reports (CCR) and educational materials, reporting Service Line Inventory results in the CCR, notifying customers about their service line materials, and more.

What are some key steps water systems can do to stay up to date on LCRR requirements and changes?

- Sign up and look for weekly ‘Drinking Water Wednesday’ emails from DOW. Email DrinkingWaterCompliance@ky.gov to be added to the distribution list.
- Become familiar with the new DOW LCRR web page: <https://tinyurl.com/DrinkingWaterCompliance>. Scroll down to the bar entitled “Lead and Copper Rule Revisions (LCRR)”:



- Set a reminder to revisit the webpage monthly for new information, such as when submitting the MOR.
- On the webpage, read the [Kentucky DOW LSL Start-up Guide](#) for first steps to take.
- Call or email the LCRR Compliance Officer Julia Harrod: 502-782-6967, Julia.Harrod@ky.gov.
- Reach out to the regional Technical Assistant for guidance and advice.



Technical Assistant	Region covered	Field offices covered	Email address	Phone number
Jackie Logsdon	Western	Paducah, Madisonville	jackie.logsdon@ky.gov	502-764-1209
CJ Bailey	South Central	Columbia, Bowling Green	cj.bailey@ky.gov	502-782-8984
Dave Messer	Southeastern	London, Hazard	david.messer@ky.gov	606-330-2080
Gabe Tanner	North Central	Louisville, Frankfort	gabriel.tanner@ky.gov	502-782-7088
Matt Lipps	Northeastern	Florence, Morehead	james.lipps@ky.gov	502-782-1649

- Start planning ahead –the estimated price for lead service line replacement in Kentucky is \$8,500 (\$5,000 for the customer-owned section and \$3,500 for the system-owned section). Note: Water systems are not required to pay for customer-owned section, but the LCRR requires these service lines to be replaced.
- Make connections with licensed plumbers in the area – a licensed plumber will be required to replace customer-owned service lines.

The Service Line Inventory requirement: initial inventory due October 16, 2024!

- Every system is required to inventory both the system AND the customer sides of every service line, as well as non-potable service lines (fire lines, farm lines, etc.), in the system. Water systems must produce records for each section of each service line. Generally, the customer side is measured from the meter or curb stop to the entry point of the building, but does NOT include the customer interior premise plumbing.
- Service lines of unknown material are treated as possible lead lines until identified, and water systems must notify customers annually of the possibility that the unknown service lines could be lead. Determining the service line material now will save on future work!

- The EPA released additional guidance on August 4, 2022, and DOW guidance will soon follow. A link to the EPA document ‘Guidance for Developing and Maintaining a Service Line Inventory’ is provided on the DOW website (<https://tinyurl.com/DrinkingWaterCompliance>).
- Start collecting location data (latitude and longitude coordinates).
 - Use Decimal Degrees (DD) format: **38.1851209, -84.8492685**
 - Search for ‘Solocator’ or ‘SurveyCam’ in the App or Play Store for a list of apps that can be used to record location coordinates, photos, and notes about each location.
 - Record the location of the water meter (preferred) or building address; be as consistent as possible with the location used to record the coordinates. If unable to record at the meter, other examples include recording between the sidewalk and road, at the front entrance of the building, etc.
 - A cell phone, tablet, or global positioning system (GPS) device are all acceptable tools to record location coordinates. Be sure to record in decimal degrees (DD); there are online programs for converting degrees-minutes-seconds to decimal degrees.
 - Use the most accurate tool and method available to the water system. Using a GPS device while at the water meter is more accurate than using a smartphone or recording coordinates from a map in the office; however, using smartphones or address geolocation services are acceptable if those are the only options available to the water system.

Getting Started on the Service Line Inventory:

- Using the DOW Service Line Inventory template (recommended; find it on the website: <https://tinyurl.com/DrinkingWaterCompliance>), develop a full list of every service line and its location within the distribution system. If the water system does not have access to Microsoft Excel, DOW can put the template into a free format, such as Google Sheets or Zoho Sheet. Remember, this inventory will need to be updated regularly, so plan ahead. Electronic formats are much easier to update, especially if they can be accessed online by workers in the field.
 - Note: The template delineates required data fields that must be collected for the service line inventory. Begin the list of service lines and their locations now, and add remaining information when encountered.

Service line ID (SLID)	Street address	Location Identifier	City	ZIP code	Spatial coordinates	
					Latitude (decimal format)	Longitude (decimal format)

- Try to establish a date when the water system stopped using lead pipes in service lines.
 - Lead pipes were not permitted in Kentucky after January 1, 1988, but in many cases, lead was not used after the 1940s-1970s. If the water system has records documenting the last date of lead use, provide the documentation and prioritize the service lines still needing identification accordingly.
- Start organizing available records, including historic distribution system maps, aerial photos, PVA and tax records, real estate records, and any other information that can establish a date of construction or service line installation. Talk to long-term and retired employees for assistance in locating areas where lead is most likely to have been used.
- Using the date of last lead installations and the records available, prioritize areas in the distribution system for field inspection (hydro-excavating, pot-holing, lead tests, water tests, etc.). Review the historical lead and copper test results for any lead-positive sample results. Focus on:
 - Areas with more known lead service lines
 - Areas with the most service lines of unknown material
 - Older areas

- Lead goosenecks, pigtails, and other connectors are **not** considered part of the lead service line, and service lines downstream from these lead connectors are not considered lead service lines or galvanized lines that require replacement.
- Field inspection should be an option of last resort, since it is often the most expensive.

Customer Communication

- Starting in 2025, water systems must annually notify each customer that has a service line made of lead, galvanized iron requiring replacement, or unknown material.
- Water systems will be required to publish the service line inventory in the CCR each year, starting in 2025.
- Start communicating with customers early in the service line inventory process. Expect this to be an ongoing process, not a one-time effort.
- Let customers know that there are new requirements regarding lead pipes, and that water systems will start reaching out to customers for more information about their service lines.
- Demonstrate to customers where the service line ends, and the premise plumbing begins. There are graphic examples on the DOW webpage (<https://tinyurl.com/DrinkingWaterCompliance>) and an EPA tool (www.epa.gov/ProtectYourTap) that can be used by customers.
- Develop a method or methods to survey customers about the customer-owned portion of the service line.
 - Mail – Include a survey in the monthly utility bill, or send a postcard survey
 - Electronic survey – There are many free or inexpensive online resources for easy development of surveys including Jotform, Google Forms, Survey Monkey, Microsoft Forms, and TypeForm.
 - Phone – Consider hiring a temporary worker or a consultant to survey customers individually, or include personal contact in everyday work plans
 - In office – if customers come to the office to pay bills, provide fact sheets, surveys, or other information there
- Educate customers about the potential dangers of lead in drinking water by developing a form letter that explains in advance what it means if they receive notice that their service line is either a) lead; b) unknown; or c) galvanized requiring replacement. Remind them that their property value or sale could eventually be affected if they choose not to participate.