

REVISIONS TO THE LEAD AND COPPER RULE (AGAIN!)

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PURPOSE OF THIS SESSION

- First glance at the U.S. EPA's Revised Lead and Copper Rule (LCR)
 - Published December 21, 2020
 - Subject to Executive Order Regulatory Freeze
- Highlight things in the Regulations that may be near term compliance concerns
- Propose some CYA items for your consideration

U.S. EPA CLAIMS

- The Regulatory change strengthens every aspect of the “old” LCR to better protect children and communities from the risks of lead exposure.
- The rule aims to:
 - **Goal 1. Better protect children** at schools and child care facilities
 - **Goal 2. Get the lead out** of our nation’s drinking water, and
 - **Goal 3. Empower communities** through information.

“WHAT WE HAVE HERE IS A FAILURE TO COMMUNICATE”

- The rule is not a “new” rule. It revises the existing rules.

Therefore, it:

- continues to confuse the public and water supply officials
- does not resolve the problems of having volunteers collect samples
- adds additional confusion by adding a new number (Trigger)

- The “new” rule **does not**:

- Tackle the fact that plumbing is the primary problem and homeowners are culpable.
- Indicate what to do when lead service lines are removed and premise plumbing continues to show lead concentration even after optimizing corrosion control.
- Establish a MCL for lead.

BRIEF REVIEW OF THE “OLD” LCR

- LCR was promulgated 1991, revised in 2000 and 2007
 - Rule applies to community (CWS) and non transient non community (NTNCWS) public water systems
 - The LCR is a treatment technique regulation requiring action to reduce exposure to the extent feasible
- Illinois EPA has primary enforcement authority for the Old Rules

PREMISE OF THE “OLD” RULE

- Lead is generally not naturally found in water
- Lead from lead pipes, faucets, and fixtures can dissolve into water or sometimes can enter as particles
- To keep lead from entering the water, U.S. and Illinois EPA require some systems to treat water using certain chemicals that keep the lead in place by reducing corrosion
- When corrosion control alone is not sufficient to control lead exposure, U.S. and Illinois EPA require systems to educate the public about risks of lead in drinking water and to replace lead service lines

IMPLEMENTATION OF THE NEW LCR

- Publication in the Federal Register January 15, 2021
- LCRR Effective Date: March 16, 2021
- Water systems must comply with previous LCR (as codified in the July 1, 2020 CFR) until the Lead and Copper Rule Revisions
- **Compliance Date: January 16, 2024**
 - **Lead Service Line Inventory and Lead Service Line Replacement Plan are due on this date**
- EPA will work with States and interested stakeholders to provide guidance and other tools

NEW REQUIREMENTS OF THE REVISED LCR

- Adds a Lead Trigger Level
- Changes Sampling Procedures
- Additional Corrosion Control Treatment
- Adds “Find and Fix” provisions
- Changes Lead Service Line Inventory
- Adds a Lead Service Line Replacement Plan
- Changes Lead Service Line Replacement
- Adds Small System Flexibility provisions
- Changes Notification and Public Education
- Adds Sampling and Education at Schools & Child Care Facilities

“NEW” LEAD TRIGGER LEVEL

- Establishes a new Lead Trigger Level of 10 $\mu\text{g}/\text{L}$
 - Trigger Level is in addition to the lead Action Level of 15 $\mu\text{g}/\text{L}$
- Water systems that exceed the Trigger Level but not the Action Level:
 - No reduced tap sampling –water systems must sample annually at the standard number of sites
 - Implement goal-based Lead Service Line Replacement program
 - Conduct annual outreach to Lead Service Line customers
 - Corrosion Control Treatment study if it is not installed or
 - Re-optimize if Corrosion Control Treatment is installed

SAMPLING PROCEDURES

- Tap sample site selection criteria (tiering):
 - Revise the tap sample site tiering criteria to emphasize sampling from Lead Service Line (LSL) sites
 - Recategorize all copper pipe with lead solder sites regardless of age
- 90th percentile calculation for lead:
 - Water systems with LSLs will use 100% tap samples from LSL sites
 - Water systems with insufficient numbers of LSLs collect samples from LSL and non-LSL sites will use the highest non-LSL tap samples
 - Water systems without LSLs will use all tap samples collected

SAMPLING PROCEDURES CONTINUED

- Tap sample collection protocol:
 - Collect the 5th liter at sites with a Lead Service Line (1st liter for copper sample)
 - Prohibit systems from including sampling instructions to remove and clean aerators or to conduct pre-stagnation flushing prior to the start of the required stagnation period
 - Systems must supply samplers/consumers with wide-mouth bottles to collect a tap sample
- Monitoring:
 - Systems above the Trigger Level must monitor at least annually
 - Not eligible for reduced triennial monitoring
 - Systems above the Action Level must monitor every six months with results at or below the Action Level for two years
 - Systems with a new source water or long-term treatment change must monitor every six months

CORROSION CONTROL TREATMENT

- Require water systems with Optimum Corrosion Control Treatment (OCCT) to re-optimize if the 90th percentile lead level exceeds the Target or Action Levels
- Require water systems without OCCT to study OCCT if the 90th percentile exceeds 10 µg/L and implement OCCT if 15 µg/L is exceeded
- Revise sanitary survey requirements for water systems to include corrosion control treatment review and Optimum Water Quality Parameters assessment, including relevant updated guidance that has been issued by the U.S. EPA

CORROSION CONTROL TREATMENT CONTINUED

- Specify that systems should evaluate an orthophosphate-based inhibitor as Corrosion Control Treatment (instead of a phosphate-based inhibitor) as part of the Corrosion Control Treatment study
- Establish additional specifications for water systems to study alternative Corrosion Control Treatment
- Require systems to conduct “find-and-fix” for individual sites that exceed 15 $\mu\text{g}/\text{L}$

“NEW” FIND AND FIX REQUIREMENT

- Require all systems to collect a follow-up sample for each lead tap sample site that exceeds 15 $\mu\text{g}/\text{L}$ and require systems to subsequently implement a “find-and-fix” approach
 - Systems must collect follow-up tap samples within 30 days of learning of the results
 - Systems will be required to report the results to the state, but the results will not be included in lead 90th percentile calculation

“NEW” FIND AND FIX REQUIREMENT CONTINUED

- Systems with Corrosion Control Treatment will be required to collect an additional Water Quality Parameter sample at or near the site where the high lead sample was collected within five days of learning of the lead results
- Systems must determine if a “fix” is needed
 - E.g., adjustment to Corrosion Control Treatment, flushing portions of the distribution system, or other strategies
 - Systems that identify a fix that is out of their control, such as premise plumbing, must provide documentation to the Illinois EPA

LEAD SERVICE LINE INVENTORY

Water systems must prepare an initial **Lead Service Line Inventory by January 16, 2024** that identifies:

- Lead Service lines
- Lead Status Unknown Service Lines
- Galvanized lines requiring replacement
- Non-lead Service lines
- Lead connectors (i.e., goosenecks or pigtails) are not required to be included in the inventory
 - U.S. EPA recommends including lead connectors where records exist
 - Water systems must replace lead connectors when encountered
- Location Identifier
- Systems must update the inventory annually (or tri-annually if the system is on reduced monitoring)

“NEW” LEAD SERVICE LINE REPLACEMENT (LSLR) PLAN

Water Systems with LSLs must prepare an LSLR program plan by January 16, 2024 that must include:

- Strategy for determining the composition of lead status unknown lines
- Procedure for conducting full LSLR,
- Strategy for informing customers before a LSLR
- LSLR goal rate recommendation (for systems serving >10,000)
- Procedure for customers to flush
- LSL replacement prioritization strategy
- disadvantaged consumers
- populations most sensitive to the effects of lead
- known lead service lines
- funding strategy to accommodate customers unable to pay

LEAD SERVICE LINE REPLACEMENT

- Water systems must replace public portion of Lead Service Line when customer notifies them of replacement of private portion
- Water systems serving >10,000 people that exceed the lead Target Level, but not the Action Level, will:
 - implement the goal-based Lead Service Line Replacement program
 - conduct goal-based Lead Service Line Replacement program irrespective of Corrosion Control Treatment status
 - the entire Lead Service Line must be replaced to count towards goal
 - can stop goal-based Lead Service Line Replacement when system is below the Target Level for two consecutive monitoring periods

> 10,000 LEAD SERVICE LINE REPLACEMENT CONTINUED

Water systems (serving >10,000) that exceed the lead Action Level will fully replace annually 3% of Lead Service Line (based upon a rolling two-year average)

- Water systems that exceed the AL must conduct LSLR regardless of Corrosion Control Treatment status
- Water systems can stop 3% annual LSLR when system is below the AL for 4 consecutive monitoring periods and if the system has replaced an overall average of 3% per year
- All Lead Service Line Replacements (LSLR) will be full replacements
 - Partial LSLR only for emergency repair or “unwilling or unable customers” when conducting infrastructure replacement (e.g., main replacement)
 - Partial LSLR does not count toward 3% annual calculation
- Removes the “test out” provision
- Require pitcher filters or Point of Use devices to be distributed and replacement cartridges by the Public Water Supply for six months immediately following lead service replacement

≤ 10,000 LEAD SERVICE LINE REPLACEMENT

Applies to CWSs serving 10,000 or fewer persons and all NTNCWS

Compliance alternatives for small CWSs and NTNCWSs:

- full lead service line replacement (all Lead Service Lines within 15 years)
- installation and maintenance of optimized corrosion control treatment
- installation and maintenance of point-of-use (POU) devices
- replacement of all lead bearing plumbing fixtures at every tap where water could be used for human consumption

Water systems with a lead Target Level exceedance will recommend a compliance option and obtain Illinois EPA approval

If a water system subsequently exceeds the lead Action Level it must implement the approved option

NOTIFICATION AND PUBLIC EDUCATION

- Make Lead Service Line Inventory with general location identifiers publicly available
- Water systems must conduct public notification to consumers within 24 hours of a 90th percentile lead level greater than the Action Level (WIIN Act)
- Provide notice to customers whose individual tap sample is > 15 µg/L within 3 days
- Require water systems with Lead Service Lines that exceed the Target Level to conduct annual outreach to Lead Service Line customers
- Deliver Public Education (PE) to impacted consumers during water-related work that may disturb Lead Service Lines
- Revised Consumer Confidence Report health effects language, availability of the Lead Service Line inventory and report of the range of tap sample levels
- Provide public access tap sample results

“NEW” SAMPLING AND EDUCATION AT SCHOOLS & CHILD CARE FACILITIES

Community Water Systems will:

- Develop a list of customers or service connections that provide water to schools or licensed child care providers and verify this list every five years
- For the first 5 years, a CWS will collect samples at 20 percent of elementary schools and 20 percent of child care facilities from the list each year
- For each child care facility: collect two samples
- For each school: collect five samples
 - After one round (5 years) of sampling then systems sample on request at elementary schools and child care facilities
 - Systems sample on request at secondary schools

“NEW” SAMPLING AND EDUCATION AT SCHOOLS & CHILD CARE FACILITIES CONTINUED

Community Water Systems will also:

- Provide the EPA’s 3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities: A Training, Testing, and Taking Action Approach
- Provide sampling results to the sampled facility, Illinois EPA, Illinois DPH and local county health department
- Annually certify to the Illinois EPA that it met the notification and sampling requirements

THINGS TO CONSIDER

- CDC has stated there is no safe level of lead in drinking water and U.S. EPA has not put forth a maximum contaminant level
- Even though the Regulation puts for a difference between a “Trigger” and an “Action” Level, Face Book won’t know or care about the difference
- Illinois conducted a program of sampling schools/day care facilities; however, this effort was before the effective date of the Revisions to the Lead and Copper Rule
- Illinois has been requiring a summary level Service Line Material Inventory; however, this is not a customer-by-customer inventory that can be made public as implied by the Revisions to the Lead and Copper Rule
- While the Revisions to the Lead and Copper Rule are technically on hold, it likely will still have a stringent implementation schedule and won’t get any less stringent in its requirements

CYA

- React to any lead detection ≥ 10 parts per billion
 - Investigate, Mitigate (Explain) and Report to the Illinois EPA via email for documentation purposes regardless of percentile
- Begin collecting information on schools and day care facilities served by your water system
 - Prepare/educate the responsible people/owners of these facilities
 - See what they may have already completed so you know where you stand (these samples will not count toward the 90th percentile)
- Start now building a data set on a customer-by-customer material inventory
 - Most systems have billing software that can download the customer list to a spreadsheet
 - Consider combining this effort with cross-connection control inventory requirements
- Be prepared to have your Lead Service Line Inventory and Lead Service Line Replacement Plan completed by January 16, 2024 in case this timeframe is not extended

QUESTIONS?