# FACT SHEET
## Lead and Copper Rule (LCR)

**Background:**

- Purpose is to protect public health by minimizing lead and copper levels found in drinking water supplies.
- Established an action level 0.015 mg/L Lead and 1.3 mg/L Copper based on percentage of tap water samples (the 90%ile is calculated by multiplying the number of samples taken by 0.9).
- A long-term revision to the LCR is under consideration.

**Basic Requirements of the LCR:**

- Require drinking water suppliers to 1) optimize treatment system to control corrosion in the distribution system, 2) determine tap water lead and copper levels, 3) rule out source water as a significant source of lead and 4) if action levels are exceeded, take certain actions including: water quality parameter monitoring, corrosion control treatment, source water monitoring/treatment, public education, or lead service line replacement.

**LCR Violations:**

- A system can be in violation of the LCR in several ways - Monitoring/Reporting (MR) violations, and Treatment Technique (TT) violations. TT is considered a health based type of violation.

**LCR Provisions:**

- Corrosion Control**:**
  - Treatment required to be initiated by PWSs to reduce corrosion in the distribution system, limiting release of lead and copper. Referred to as corrosion control treatment (CCT).
  - The CCT strategy selected by the PWS must be optimized (maximum and efficient treatment to reduce lead and copper corrosion at a specific system) and is referred to as optimized corrosion control treatment (OCCT).
  - The OCCT is approved by the primacy agency once the PWS selects the strategy.
  - Water quality parameters (WQPs) are used to confirm that the approved OCCT strategy is being maintained. WQPs include specified physical and chemical parameters, are monitored based on population served and differ from the tap water monitoring since they are collected at entry point to the distribution system (leaving treatment plant and entering the distribution system).
- Optimization**:**
  - PWS must complete all applicable corrosion control treatment requirements, unless it is considered to have controls in place that the PWS meets the action levels for lead and copper. If this situation is met, the PWS is deemed to have optimized corrosion control. There are many criteria to determine this designation.
- Source Water Provisions:
  - Source water sampling is required at PWSs that exceed the action level and is used to rule out source contribution of lead and copper from a ground water or a surface water source.
  - If a source is determined to contribute lead copper levels that cause an exceedance of the action level, then the PWS is required to install Source Water Treatment. The primacy agency establishes maximum permissible levels (MPL) for lead and copper based on initial and follow-up source sampling results.
- Lead Service Line Replacement (LSLR) Provisions:
  - LSLR requires PWSs that continue to exceed lead action level after installation of CCT and/or Source Water Treatment to replace a specified amount of lead service lines on an annual basis.
  - Two of the major changes specified in the LCR Minor Revisions Rule (2000) regarding LSLR: 1) Requires PWSs to replace portions of the LSL that they own, and 2) Notify residents of partially replaced LSLs and that there may be temporary increases of lead levels until it stabilizes, which means that appropriate measures, i.e. filters installed on faucets, should be taken by resident until lead levels reduce.

- Major Monitoring Provisions:
  - All Community Water Supply (CWS) and Non-Transient Non-Community Water Supply (NTNCWS) systems are required to monitor at specific high-risk sites within the distribution system for first-draw tap samples. The Transient Non-Community Water Supply (TNCWS, i.e. train or bus stations) are not required to monitor.
  - WQPs are required for:
    - Systems serving over 50,000 (large CWS)
      - Note that all large CWS must install CCT regardless of lead and copper results.
    - Systems serving less than 50,000 during the monitoring period in which an action level is exceeded (medium, small CWS and NTNCWS).
  - Rule allows for reduced and standard monitoring with sampling based on system size differentiation (go from quarterly to every 3 years - if the sampling shows stable results without exceedances).
- Public Education Provisions:
  - Required only for lead action level exceedances.
  - PWSs are required to deliver public education materials after an exceedance of lead action level.
  - Three of the major changes specified in the LCR Short Term Revisions rule (2007) address:
    - specific content of the message provided to consumers
    - method of delivery to consumers
    - Time frame for delivery of the message to consumers.
  - Requires educational statements about lead in drinking water to be placed in the Consumer Confidence Reports provided annually to consumers.