EXECUTIVE SUMMARY
Safe Drinking Water Revised Lead and Copper Rule Improvements
25 Pa. Code Chapter 109

The Department of Environmental Protection (Department) proposes to amend Chapter 109 (relating to safe drinking water) to ensure that the Commonwealth's safe drinking water regulations remain at least as stringent as the National Primary Drinking Water Regulations promulgated by the United States Environmental Protection Agency (EPA), which is a condition of the Department retaining primary enforcement responsibility (primacy) for public water systems (PWSs) in this Commonwealth under the Federal Safe Drinking Water Act.

Purpose of the Proposed Rulemaking

In 2024, the EPA adopted the Lead and Copper Rule Improvements (2024 LCRI) to further reduce exposure to lead from drinking water, building upon two prior EPA lead and copper rules, described below. The Department must incorporate the 2024 LCRI provisions into Chapter 109 to ensure that state regulations are at least as stringent as federal regulations.

The proposed amendments will improve public health protection by educating consumers on the dangers of lead and reducing their exposure to lead in drinking water. The proposed amendments include provisions that: require water systems to complete and submit a service line inventory to identify, locate, and replace lead service lines; strengthen the compliance steps for optimal corrosion control treatment (CCT); update the tap sampling requirements for lead and copper to improve the reliability of results; lower the lead action level and update the calculation for the 90^{th} percentile compliance value; require sampling in schools and child care facilities; and require additional actions for water systems with multiple lead action level exceedances.

There is no known safe level of exposure to lead. Exposure to lead can cause harmful health effects for people of any age including neurodevelopmental problems in children and heart disease in adults. Safe drinking water is vital to maintaining healthy and sustainable communities and is a key foundation for economic growth. The proposed amendments would further protect the health of people in Pennsylvania who consume drinking water provided by PWSs by reducing their exposure to lead from drinking water.

Summary of Federal Rulemakings and this Proposed Rulemaking

The original Lead and Copper Rule (1991 LCR) was published by the EPA in 1991 and required actions by PWSs to reduce levels of lead and copper in drinking water. In 2021, the EPA published the Lead and Copper Rule Revisions (2021 LCRR). Built upon the 1991 LCR and the 2021 LCRR, the 2024 LCRI further reduces exposure to lead from drinking water. With this proposed rulemaking, the Department would incorporate the 2024 LCRI provisions into Chapter 109 to ensure that state regulations are at least as stringent as federal regulations.

The goal of the 1991 LCR was to improve health by reducing lead and copper levels at consumer taps. The key provision was treatment technique requirements that include lead service line replacement, CCT, source water treatment, and public education. It also established requirements

for community water systems and nontransient noncommunity water systems to conduct monitoring at consumer taps. The 1991 LCR established action levels of 0.015 mg/L for lead and 1.3 mg/L for copper.

To help identify areas with the greatest potential for lead contamination of drinking water and most in need of remediation, the 2021 LCRR and 2024 LCRI require that all water systems complete and maintain a service line inventory. The 2024 LCRI also requires water systems to annually update the inventory and to identify the material of all service lines within 10 years of November 1, 2027, the effective date of the 2024 LCRI. Where present, lead service lines are the most significant source of lead in drinking water. Lead can still be released from lead and galvanized service lines even for PWSs that have optimized CCT. Therefore, the 2024 LCRI requires that all PWSs with lead or galvanized requiring replacement service lines prepare a service line replacement plan and replace lead connectors and all lead and galvanized requiring replacement service lines under their control within 10 years of November 1, 2027.

The 2024 LCRI also recognizes that replacing lead service lines may not eliminate all lead exposure from tap water because premise plumbing from homes and buildings may also contain lead components. PWSs without CCT must evaluate and install CCT if a 90th percentile lead or copper value exceeds the action level. PWSs with CCT are required to reoptimize CCT if a 90th percentile lead result exceeds the action level. The 2024 LCRI provides optional alternatives to CCT for small systems that exceed the lead action level and not the copper action level, such as point-of-use treatment or replacement of lead-bearing plumbing materials.

The 2024 LCRI lowers the lead action level from 0.015 mg/L to 0.010 mg/L, which will result in more water systems installing or reoptimizing CCT and providing public education to reduce drinking water lead exposure. Systems must prioritize sampling at sites based on the presence of service lines and plumbing materials most likely to contribute lead to drinking water and use this data to calculate the 90th percentile compliance value.

Children are especially vulnerable to lead exposure and can spend a significant amount of time in schools and child care facilities where the premise plumbing may contain lead, yet many schools or child care facilities do not have experience with monitoring lead in drinking water. Therefore, the 2024 LCRI requires all community water systems to: develop a list of all elementary and secondary schools and child care facilities they serve; conduct public education about the health risks of lead in drinking water to all elementary schools, secondary schools, and child care facilities on their list at least annually; and conduct sampling in the elementary schools and child care facilities that they serve.

The following proposed amendments to Chapter 109 are more stringent than the requirements in the 2024 LCRI: incorporating lead connectors are in the definition of "GRR service line" to provide greater public health protection; setting interim deadlines for the CCT feasibility study and construction permit timeframes to provide the Department sufficient review time; setting a deadline by which water systems must request to maintain a reduced monitoring frequency so that there is sufficient time for Department review and for systems that are denied reduced monitoring to complete standard monitoring; requiring weekly water quality parameter monitoring at the entry point and within the distribution system to ensure CCT treatment is

effectively operated and maintained; requiring groundwater systems to monitor water quality parameters at all entry points to ensure all treatment processes are effectively treating the sources to achieve acceptable finished water quality; requiring source water monitoring at the entry point each time lead or copper each time a 90th percentile value exceeds the action level to ensure water systems are responding appropriately, maintaining and properly operating existing treatment or taking steps to add treatment when necessary; requiring systems to submit the service line and connector inventory in a format acceptable to the Department so that information can be efficiently incorporated into the Department's data system and reported to the EPA; and setting January 6, 1991, as the date by which service lines categorized as "nonlead" may be excluded from the validation pool because water systems in Pennsylvania were allowed to continue installing lead service lines until this date.

Affected Parties

The 2024 LCRI provisions will apply to the 2,911 community water systems and nontransient noncommunity water systems in Pennsylvania serving approximately 11 million people. Complying with this proposed rulemaking will result in some cost increases to PWSs.

Outreach (Advisory Committee/Stakeholder Consultation)

The draft proposed rulemaking was presented to the Public Water System Technical Assistance Center Board (Board) on February 12, 2026, for review and comment.

The Board recommended that: the definition of "connector" be edited for clarity; the deadlines for the CCT steps be edited to show they are consistent with the federal CCT timeline even though the proposed rulemaking has different interim due dates to address the Department's permitting requirements; that a provision be deleted because it is unnecessary and confusing; and that the language for water quality parameter site locations match the federal language. Annex A was revised as recommended by the Board.

The Board also recommended that:

- The Department work with the EPA to ensure clarity and strong language in technical guidance on how the 90th percentile value is to be calculated and should include examples of what sample results are to be ranked and included in the calculation;
- The Department create written standard operating procedures and training for staff to ensure consistent implementation in determining when systems should be required to reoptimize optimal CCT; and
- The Department and the EPA should work with their respective Departments of Education and Human Services in creating a marketing/communications and notification plan that includes templates (in English and Spanish) for sampling in schools and child care facilities to assist PWSs in meeting the 2024 LCRI requirements.

The Department agrees with the Board recommendations for additional guidance and standard operating procedures. The Department will discuss the last recommendation with EPA Region 3

and may follow up with the Department of Education and the Department of Human Services, as appropriate.

Recommendation

The Department recommends adoption of this proposed rulemaking. A 60-day public comment period is also recommended.